

Conference Paper

Funding Decision Trade Off Theory and Pecking Order Theory Perspectives in Jakarta Islamic Index

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Abstract

The operations of the company are always faced with the problem of meeting the needs of funds. Company funding is closely related to the selection and combination of internal funding sources and external funding sources. The funding decision of the capital structure determines the company in carrying out its operating activities that affect the company's value. There are two perspectives in determining the funding decision of capital structure, namely trade-off theory and pecking order theory. This study aimed to analyze the effect of capital structure funding decision variables according to the perspective of trade-off theory and pecking order theory on capital structure funding decision. The study population were companies listed in the Jakarta Islamic Index. There were 30 sample companies used during the period of June to November 2016.

The result showed that according to trade-off theory, firm size and growth influenced to leverage, but tangible fixed assets and profitability had no effect on leverage. While according to pecking order theory perspective, it showed that only variable of growth that influenced to leverage. Thus it can be concluded that companies in Jakarta Islamic Index tend to follow trade-off theory perspective.

Keywords: Funding decision, trade off theory, pecking order theory

INTRODUCTION

The company development in an effort to anticipate the sharp increasingly competition in the increasingly global market will always be done by both large companies and small companies. The effort is a separate issue for the company, because it involves the fulfillment of funds needed. In the principle, each company is need funds for the business development. These funds fulfillments are comes from internal sources or external sources. Therefore, the financial managers will still pay attention to the cost of capital so it is necessary to determine the capital structure in an effort to determine whether the needs of company's funds are fulfilled with their own capital or fulfilled with foreign capital. The problem of capital structure is an important issue for every company, because good or bad of corporate capital structure will have a direct effect on the financial position. A company

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that has a poor capital structure, which has huge debt will left heavy burden on the company (Brigham and Houston, 2013).

If a company in fulfilling the needs of funds is prioritize the source from within the company, it will greatly reduce the dependences to outsiders. If the need for funds has been so increased due to the company's growth, and the funds from internal sources have been used wholly, then there is no other choice but to use the funds from outside of the company either from debt or by issuing new shares in fulfilling the needs of funds.

The company is an important axis in building Indonesia's economic system. Every company is required to manage the functions of management well so that the grown and developed companies may have positive impact on the Indonesia economy. Each company in their operations will face the problem of fulfilling the needs of funds. The company funding is closely related to the selection and combination of internal funding source, i.e. equity and external one, i.e. long-term debt (Brealey et al. 2008). The decision to determine the funding of capital structure will determine the company in performing the operating activities that has effect on company's value. There are two notions to determine the capital structure which are pecking order theory and trade off theory (Pangeran, 2010).

Capital structure is a reflection of company's policy in determining the type of securities issued. The capital structure policy is generally influenced by two factors: fundamental or internal factors (such as assets structure, firm size, sales growth, profitability, risks, and investment opportunities) and external factors (such as interest rates, political situation and capital market conditions). Factors from outside of company can not be controlled to determine the optimal capital structure, where the optimal capital structure is the capital structure that optimizes the balance between risks and rate of return so as to maximize stock prices.

Inadequate funding decisions will lead to the higher fixed costs in the form of capital costs which may subsequently result in lower profitability (Riswan and Sari, 2015). Companies that have high profitability will reduce debts. This is because the company allocates most of the profits to retained earnings, thus relying on internal sources and relatively low to use debt (Hardianti and Gunawan, 2010). The firm size proved to have an important role in determining the selection of capital structure to be used. The study of Harjanti and Tandelilin (2007) showed that firm size had negative effect on capital structure. Based on the conditions described above it can be obtained the background image of situational, conditional, and experimental of capital structure of the issuers in the Indonesian capital market, so that the researcher is interested to test the capital structure in terms of trade off theory and pecking order theory by using the sharia-based company that are the companies listed in the Jakarta Islamic Index. The problem formulation of this research is how the application of trade off theory and pecking order theory on companies listed in the Jakarta Islamic Index? Based on the problem formulation, the purpose of this research is to analyze the effect of tangible fixed asset, firm size, profitability and growth in terms of trade off theory and pecking order theory on funding decision at companies in Jakarta Islamic Index.

Capital Structure

Capital structure is permanent financing that consisting of long-term debt, preferred stock and shareholder capital. The main components of capital structure are long-term debt and own capital (Weston and Copeland, 2010). The capital structure is the mix of fund using derived from equity and debt. The consequences to be taken by the company when they using debt are the company must obey the debt agreement. If the company uses the source of funds in the form of shares issuance then the company must provide compensation to investors in the form of dividends. The capital structure in the company is closely related to the investment so that in this case it will involve the source of funds used to finance the investment project. Sources of funds may come from equity financing, debt financing, and retained earnings. Stocks and bonds issuance is often referred to the sources of funds that come from outside of the company (external financing) while the funds derived from retained earnings referred to the funds that come from within the company (internal financing). Capital structure is measured by using capital structure ratio called leverage ratio. The calculation of leverage ratio is long term debt to equity ratio

that shows the percentage of own capital which is used as collateral for long-term debt which is calculated by comparing the long-term debt with own capital.

Pecking Order Theory

Pecking order theory was introduced by Donaldson in 1961 and the naming of pecking order theory was conducted by Myers in 1984 (Riswan and Sari, 2015). This theory states that the company prefers internal financing that is the funding come from the yield of company's operations in the form of retained earnings. If external financing is required, the company will issue the safest securities firstly, which starting with the bonds issuance then followed by the securities issuance with the option characteristic and if they still not sufficient then the new shares will be issued. So the sequence to use funding sources that refers to pecking order theory is internal funds, debt, and equity.

Internal funds are preferred over external funds because internal funds allow companies to not "open themselves" anymore from outside investors' attention. Besides that, the effect of asymmetric information and stock issuance costs tend to encourage pecking order behavior (Pangeran, 2010). The company prefers using of funding from internal capital i.e. funds derived from cash flow, retained earnings, and depreciation (Ghazouani, 2013). External funds in the form of debt are preferred over their own capital for two reasons; the first is the consideration of issuance costs. The costs of bond issuance are cheaper than new share issuance costs (Brigham and Houston, 2013). The second is the possibility of asymmetric information between the management and the investors. The manager is worried that the issuance of new shares will be interpreted as bad news by investors, thus it will lowering stock prices (Weston and Copeland, 2010).

Pecking order theory is focuses on the motivation of corporate managers rather than on the principles of capital market valuation (Pangeran, 2010). Pecking order theory is bases on information asymmetry. Managers have superior information. Managers are believed to have better initial information. Therefore, the market will study the managers' behavior. Assumptions of information asymmetric imply that the managers develop and find exciting new investment opportunities with positive Net Present Value (NPV), but they can not convey that information well to outside shareholders because the manager's statement is not trusted by the investor. Pecking order theory explains why the vastly profitable companies generally have less debt. This is happens not to the company has a low debt ratio target, but because the company does not require funds from external parties (Steven and Lina, 2011).

Trade off Theory

Trade off theory is a capital structure model that is based on trade off (exchange) between profit and loss of debt using. This theory has the assumption that the capital structure of the company is a balance between the profitability of debt use with the cost of financial distress and agency cost. The debt raises interest expenses that can save taxes. The interest expense can be deducted from the income so that the earnings before tax turn into smaller, thus the tax is also getting smaller. The increasing use of debt will lead to financial distress or bankruptcy. The problems related to the bankruptcy are likely to arise when the companies put more debt into their capital structure. The bankrupt company will have very high accounting and legal expenses and also find it difficult to retain the customers, suppliers and employees. Therefore the cost of bankruptcy keeps the company using debt at an excessive rate (Brigham and Houston, 2013). The capital decision theoretically was based on trade off theory which assumes that the company seeks to maintain a targeted capital structure with the aim to maximizing market value (Pangeran, 2010). Trade off theory predicts each company to adjusts slowly toward the optimal debt ratio. The optimal capital structure can be found by balancing between the advantages of debt using with the cost of bankruptcy and the cost of capital, called static trade off.

Tangible fixed assets and Leverage

According to the notions of trade off theory, fixed assets can be used as collateral for new loans of debt (Mahardhika and Aisyah, 2013), that the companies with high tangible fixed asset are more likely to issue debt by guaranteeing corporate assets. This is interpreted as the higher the ability of companies to provide collateral in obtaining loans the greater the proportion of loans in the capital structure because the easier the company in obtaining credit. According to pecking order theory the companies that have high assets are generally large companies, which do not require the loans because the companies will be more likely to use internal funding.

Hypothesis 1: tangible fixed asset has effect on leverage.

Firm size and Leverage

According to trade off theory, the large firm size has greater chance to enter the capital market which making they are easier to get loans (Nuswandari, 2013). The large size companies generally tend have less likely to go bankrupt so they are easier to attracting loans from banks rather than smaller companies. According to pecking order theory, large size companies certainly have high assets to generate profits, so the companies with high assets do not require loans in the form of debt.

Hypothesis 2: firm size has effect on leverage.

Profitability and Leverage

Trade off theory argues that the higher profitability then the proportion of equity will increase or the proportion of loans will decrease. The large size companies generally tend to have a large proportion of loans, so the negative correlation between profitability and leverage in the company is stronger. The company also faces restrictions on the use of retained earnings and sticky dividend policy. Therefore, if there is a decrease in profit, the company will tend to cover the funding needs by increasing the loan from outside (Nuswandari, 2013), so the company will increase the debt to some extent to increase the company's value. Pecking order theory argues that the main funding of the company is internal financing in the form of retained earnings, so the company firstly using internal funds to fulfilling the operational needs of company.

Hypothesis 3: profitability has effect on leverage.

Growth and Leverage

Pecking order theory argues that the companies with funding deficits will fund the company's activities by increasing the level of corporate debt firstly and finally by issuing shares. This theory argues that if the company gains excess cash it can be used to reduce the debt (Mahardhika and Aisyah, 2013). Trade off theory and pecking order theory suggest that the companies with high debt ratios can endanger the company's growth rate in the future, so the companies will tend to keep debt ratios in low level.

Hypothesis 4: Growth has effect on leverage.

METHODS

Population and Sample

The data source of this research is secondary data that is in the form of company's financial report which registered in Jakarta Islamic Index (JII) obtained through website www.idx.co.id. The population of this research is all of companies listed in Jakarta Islamic Index. The samples used are 30 companies registered in Jakarta Islamic Index period from June to November 2016.

Operational Definition and Variable Measurement

The capital structure is a balance between own capital and external capital. The capital structure is measured using leverage. Leverage is projected by using Debt to Total Assets (DAR). DAR is a comparison between long-term

debt and total assets (Nuswandari, 2013). Tangible fixed assets indicate the amount of company assets that can be guaranteed (Mahardhika and Aisyah, 2013). Firm size is the size of a company that describes the size of a company based on total sales, average rate of sales, total assets, and average of total assets. Firm size is proxy by using natural logarithm of net sales i.e. the firm size based on total sales (Nuswandari, 2013). The use of natural logarithms is intended to reduce excessive fluctuations of data which will reduce the skewness of distribution and minimize standard error of regression coefficients (Harjanti and Tandelilin, 2007). Profitability is a measure to determine the effectiveness of management in managing the company. Profitability is projected by using Return on Assets (ROA) that is the company's ability to generate profit by using total of own capital (Nuswandari, 2013). Growth shows the company's growth. Growth is proxy by market to book value ratio (Mahardhika and Aisyah, 2013).

Analysis Technique

The method of analysis in this research is using model of multiple regression analysis with Ordinary Least Square method. The regression equation will explain how the influence of each independent variable to the dependent variable. Regression model for testing trade off theory and pecking order theory in the form of equation as follows:

$$\text{Leverage} = \alpha + \beta_1 \text{TFA} + \beta_2 \text{FS} + \beta_3 \text{Prf} + \beta_4 \text{Gwh} + \epsilon_{it}$$

Description:

Leverage = Debt level (ratio of total debt to total assets)

TFA = Tangible fixed asset (ratio of fixed asset to total assets)

FS = Firm size (Ln total assets)

Prf = Profitability (return on asset)

Gwh = Growth (market to book value)

RESULT AND DISCUSSION

Table- 1. Test Results of Outlier

	Maximum	N
Mahalanobis Distance	21.801	30

Detection of outlier: there is an outlier if Mahal. Distance Maximum > Probability and Number of variables [=CHIINV(Prob;Variables)]. In table 1 presents the value of Mahal. Distance Maximum of 21.801 is smaller than 23.513 [CHIINV(0.001;4)]. This value indicates that there is no outlier in observation data, which means that observation data have good quality so that it can be done in further processing.

Table- 2. Test Results of Normality

	Unstandardized Residual
Asymp. Sig. (2-tailed)	0.935

Detection of normality is using Kolmogorov-Smirnov Test indicating that all research variables have normal distribution if the value of Asymp. Sig is greater than 0.05. The result of analysis shows that all variables studied have value of Asymp. Sig is greater than 0.05. Thus it can be concluded that the data satisfy normal distributed assumptions.

Table- 3. Test Results of Multicollinearity

	TFA	FS	Prf	Gwh
Variance Inflation Factors	1.076	1.252	1.109	1.177

Detection of multicollinary:

- The value of VIF (Variance Inflation Factor) and Tolerance. If the VIF number exceeds 10, then that variable indicates the presence of multicollinearity (Gujarati, 2005).
- The Eigenvalue closes to 0
- Condition Index exceeds 15

The results show that all independent variables have values of VIF smaller than 10. Thus it can be concluded that there are no multicollinearity symptoms in all of independent variables.

Table- 4. Test Results of Heteroscedasticity

	TFA	FS	Prf	Gwh
Sig. (2-tailed)	.923	.928	.062	.402

Detection of heteroscedasticity is using Kolmogorov-Smirnov Test indicating that all of research variables have normal distribution if the value of Asymp. Sig (significance) is greater than 0.05.

Table- 5. Test Results of Autocorrelation and Correlation Coefficient

Model	R	R Square	Durbin-Watson
1	0.620	0.384	1.814

Detection of autocorrelation is using Durbin Watson value with the criteria if D-W below -2 then it has positive autocorrelation, D-W above 2 then it has negative autocorrelation, and D-W between -2 to 2 is has no autocorrelation. The result shows that Durbin Watson value is 1.814. Thus it can be concluded that there are no symptoms of autocorrelation.

The correlation coefficient (R) is 0.620 indicates that the correlation between all independent variables with leverage is strong. The determination coefficient (R²) is 0.384 means that the dependent variable of leverage is influenced by all of independent variables by 38.4 percent while the rest of 61.6 percent are influenced by other variables other than independent variables in the model.

Table- 6. Results of F Test

Model	Significant
Regression	0,014

The test results show the significance value (Sig) is 0.014 that is smaller than 0.05 which means significant, so it can be concluded that the use of regression model in this study has been appropriate or fit.

Table- 7. Results of Multiple Regressions

Model	Unstandardized Coefficients	Significant
(Constant)	-.596	.263
Tangible Fixed Assets	-.286	.063
Firm size	.068	.033
Profitability	.011	.175
Growth	-2.343E-5	.048

Based on the analysis results it was obtained the regression equation:

$$\text{Leverage} = -0.596 - 0.286 \text{ TFA} + 0.068 \text{ FS} + 0.001 \text{ Prf} - 0.0000234 \text{ Gwh} + e_i$$

The Effect of Tangible fixed assets on Leverage

Based on the analysis results shows that the variable of tangible fixed assets has significance value of 0.063 (> 0.05) and has negative direction. This means that tangible fixed assets is has no effect on leverage. This result is not in line with trade off theory but the coefficient direction is in accordance with pecking order theory. This is likely due to the fact that the firms with high assets are generally the large companies, which do not require loans because companies will be more likely to use internal funding. The results of this study support the research of Mahardhika and Aisyah (2013) whose the research results show that tangible fixed assets has negative effect on leverage.

The Effect of Firm Size on Leverage

Based on the analysis results show that the variables of firm size has significance value of 0.033 (< 0.05) and has positive direction. This means that the firm size has effect on leverage. This result is in line with trade off theory but not in accordance with pecking order theory. The large firm size has greater chance of getting into the capital market then making it easier to get loans. This research supports Mahardhika and Aisyah's research (2013), but only based on the direction of the coefficient.

The Effect of Profitability on Leverage

Based on the analysis results shows that the variables of profitability has significance value of 0.175 (> 0.05) and has positive direction. This means that profitability has no effect on leverage. This is in line with trade off theory but only the direction of the coefficient. The large firms have greater chance of getting into the capital market then making it easier to get loans.

The Effect of Growth on Leverage

Based on the analysis results shows that the variable of growth has significance value of 0.048 (< 0.05) and has negative direction. This means that growth has effect on leverage. This is in line with trade off theory and pecking order theory. Trade off theory and pecking order theory suggest that the companies with high debt ratios can endanger the company's growth rate in the future, so the companies will tend to keep debt ratios in low level. This research supports Mahardhika and Aisyah's research (2013), but only based on the direction of the coefficient.

CONCLUSION

Conclusion

Based on the analysis results and discussion it can be concluded that in the notions of trade off theory, variables of firm size and growth have effect on leverage, but tangible fixed assets and profitability have no effect on leverage. Tangible fixed assets have the same direction coefficients based on the pecking order theory notions, but have no effect on leverage. Likewise, profitability has the same coefficient direction based on the notion of trade off theory, but has no effect on leverage.

Implications

This research can assist the financial managers in determining the appropriate capital structure policy for the company in order to minimize the cost of capital so that in later it will maximize shareholder prosperity.

Limitations

- a. The research period is limited to the period of June to November 2016 which lasted for six months.
- b. The research object is limited to the firms listed in the Jakarta Islamic Index.

Suggestion

- a. The study timeframe can be extended to several periods.
- b. The research object can use companies listed in Indonesia stock exchange either based on syariah or non syariah or classify on syariah based company in certain sector such as: syariah stock in manufacturing company.
- c. It is suggested to add other independent variables such as: asset structure, dividend, business risk, sales growth, and taxes.

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