

Determinants of Capital Structure of Malaysian Property Developers

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Abstract: Parallel with the title, this study attempts to investigate the determinants of capital structure of Malaysian property developers. This study investigates 10 public listed Malaysian property developers. In other words, there are 10 samples included in this study. The 10 samples then are divided equally into two different samples. The two samples are top five developers and bottom five developers. The samples in this study are included to the availability and continuity of published financial statements during the period of 2001-2010. Variables used for the analysis include debt ratio as the dependent variable, profitability, non-debt tax shield, tangibility, growth opportunity and liquidity as the explanatory variables. The data was analyzed by using IBM SPSS statistics version 20 to do descriptive statistics and regression analysis. The study has shown that only profitability and tangibility are significant in explaining variation in leverage of the top five developers while non-debt tax shield, growth opportunity and liquidity are insignificant in explaining variation in leverage of the top five developers. The study also shows that all of the explanatory variables are insignificant in explaining variation in leverage of the bottom five developers. This study has laid some groundwork to explore the determinants of capital structure of Malaysian property developers and this paper by employing the most recent data. This study must be refined in the future to get a better result and ensure its reliability to other researchers.

Key words: Capital structure % Property developers % Debt Ratio % Source of financing

INTRODUCTION

Today's business organizations grow rapidly since decades ago. Rapid and sustainable development of a business organization is very much related to how efficient managements finance their businesses. Hence, Decisions concerning capital structure are vital for every business organization. In corporate world of business, it is the management's job to make capital structure decisions. Generally, a mix of internal and external sources of financing is used by today's corporate business organizations. Example of internal source would be the issuance of share through initial public offering (IPO) and debt would be the external source. Management has to carefully ensure that their capital structure decisions maximize their firm value. The maximization of firm value process involves the selection of debts and equity securities with different costs and benefits in a balanced proportion. Mistakes in the selection process of securities may lead the company to financial distress and eventually wind up. Thus, it is never an easy task to maximize firm value through capital structure decisions.

Investopedia.com defines capital structure as a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. Capital structure is how a firm finances its overall operations and growth by using different sources of funds. Debt comes in form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure. Meanwhile, Dictionary.com defines capital structure as the appointments of all the financial resources of a business, in equity, bonds, etc. This paper attempts to present empirical evidence on the determinants of capital structure of Malaysian property developers. There are 5 explanatory variables included in this research such as profitability, tangibility, growth opportunities, liquidity and non-debt tax shield while there is only one dependent variable, debt ratio. To determine how the debt ratio is influenced by the explanatory variables, regression model will be used in the analysis. This study isn't a new study since there are many previous studies have been done in the past. Hence

this study is more like re-study the previous researchers' works. Their works such as literature reviews, adopted analysis model and especially empirical results and discussions are imperative and highly dependable to be used in conducting future research especially in this study, Determinants of Capital Structure of Malaysian Property Developers.

Modern theory of Modigliani and Miller [1] of capital structure state that in a perfect capital market, firm value will not be affected by the capital structure. Firms are free to choose whatever sources available as proportion of their capital structure. As the problem concerning capital structure has been discussed earlier in this paper, in today's world of business, the theory is completely unreliable since it's completely cannot be applied in business world and hence, firms realize that decisions concerning capital structure is now very important. The problem to make a decisions concerning capital structure is how to get an optimal capital structure and at the same time the decisions will also maximize firm value of a firm. To curb with the problem many researchers have been done in the past to help firms recognize the factors that affect capital structure and from the findings firms are now have many references and guidelines to help them making a better capital structure decisions to get an optimal capital structure and maximize the firm value. Following the previous studies, this study attempts to provide solutions to the problem specifically to Malaysian property developers by making an empirical study to determine what are the factors affecting capital structure. Referring to previous study, this study is suggesting that profitability, tangibility, non-debt tax shield, liquidity and growth opportunities are the factors that affect capital structure. However, this suggestion has to be proven by an empirical analysis which later will be performed in this study.

Modigliani and Miller [1] developed the modern theory of capital structure. According to them, under perfect capital market conditions and no taxes, firm's value is not affected by the capital structure. In other words, the choice between debt and equity financing as a capital structure would not affect a business firm value. However, their assumption was not valid and cannot be applied in real business world. Thus, decisions to choose capital structure to maximize firm value become vital. In the trade-off theory, if net tax advantage of debt financing can balances the leverage risks such as financial distress and bankruptcy, optimal capital structure can be obtained. This theory suggests that business organizations with high business risk should use less debt compared to business organizations with low business risk. The reason

behind it is because the higher the business risk the higher the probability of financial turbulence. In addition to that, high business risk is likely to yield high return, vice versa. This theory also suggests, firms that operate with more tangible assets (i.e. buildings, machineries and vehicles) should use more debt since tangible assets can be used as a collateral. Besides that, intangible assets (i.e. trademarks, contracts and patented technology) not only cannot be used as collateral, it also tends to devaluate when financial distress occurs. One of the disadvantages of using more debt to finance firm's business is this kind of financing does not really free from costs despite debt financing has the tax shield. There are at least two potential costs involve in debt financing. The costs are bankruptcy costs and the agency costs. Bankruptcy cost can be divided into two kinds, direct costs and indirect costs. Good examples for direct costs are fees for lawyers, accountants, other professionals and value of time spent in administering the bankruptcy process while indirect costs include lost sales hence lost profit and unfavorable chance to obtain credit from banks or to issue securities. In summary, trade-off theory underlines tax shield when debt is used to finance businesses in business organizations to obtain optimal capital structure and could encounter the risk of financial distress and bankruptcy if net tax advantages can balance the bankruptcy costs. Myers and Majluf [2] created the pecking order theory based on two prominent assumptions. The first assumption suggest that managers or insiders of a corporation possess private information about firms' conditions such as firm's return stream or investment opportunities which outside investors may not know about the information. Second assumptions suggest that managers act according to the interest of existing shareholders. To comply with such conditions, a firm would sacrifice the opportunity of positive net present value projects if necessary due to undervalued shares would have to be issued to new investors in order to get the projects. In essence, this theory suggest that firms prefer to use internal source of fund first, such as retained earning if there are sufficient amount of it. Then only firms will choose over external sources such as debt and lastly firms will issue new equity to new investors if external sources of financing are really required. According to Bevan and Danbolt [3], high profitable firms should use less debt since high level of profits provides high level of internal funds. Thus, the relationship between leverage and profitability is negative. Um [4] suggests that growing companies are actively seeking for investment opportunities and to finance the investments more funds are needed due to insufficient retained

earnings to cover the cost of the investments. Hence, pecking order theory suggests a positive relationship between leverage and growth. Myers [5] suggests that there is a positive relationship between leverage and tangibility. This suggestion can be justified with high tangibility firms could use more debts since they have enough tangibles assets to be used as collateral to secure debts. A conflict of interest between debt lenders and shareholders and managers causing debt agency cost. They justified the statement by stating that the conflict of interest could happens when managers want to invest in high risk investments, as they have to comply with shareholders' interest. Meanwhile, this situation seems unfavorable to debt lenders if the investments fail. They are the one who is likely to bear the cost while shareholders with limited liability only bear fruitless investments effort. They also suggested that, secured debt might reduce the debt agency cost. This is because secured debt is collateralized by tangible assets from firms with high tangibility level. Hence, debt lenders will be at ease since they have the collateralized assets with them to cover the losses from fruitless investment in the future. Titman and Wessels [6] in their study state that debt agency cost is higher for firms in growing industries. Thus, they suggest a negative relationship between leverage and growth opportunities. In debt cost explanation, Um [4] suggests that there is a positive relationship between leverage and tangibility. In contrast, Um [4] also suggest that there is negative relationship between leverage and tangibility in equity cost explanation. The theoretical framework of the study can be further explained by using debt ratio is the dependent variable and in order to test relationship between the dependent variable and explanatory variables there are five explanatory variables selected for this study. The explanatory variables are profitability, tangibility, growth opportunity, liquidity and non-debt tax shield, included in this study. The trade-off theory suggests a positive relationship between profitability and leverage because high probability will encourage the use of debt and thus provides the benefits of tax shields on interest payments. The pecking order theory suggests a negative relationship between profitability and leverage since under this theory, business firms prefer to use internally generated funds when sufficient available and only use debt over equity when external financing is really required. Several previous empirical studies such as Titman and Wessels [6] and Rajan and Zingales [7] found a negative relationship between profitability and leverage. Both theory of pecking order and the trade-off theory suggest that there is a positive relationship between

leverage and tangibility. Firms with more tangible assets are likely to use more debts since the debts can be secured by collateralized tangible assets. According to trade-off theory, firms holding future growth opportunities, which are in form of intangible assets, tend to borrow less than firms holding more tangible assets because tangible assets cannot be collateralized. Trade-off theory suggests a negative relationship between leverage and growth opportunities. Firms with high liquidity ratios should borrow more debt due to their ability to meet their liabilities obligation. Thus, trade-off theory predicts a positive relationship between leverage and liquidity. In contrast to the trade-off theory regarding liquidity, the pecking order theory suggests a negative relationship between leverage and liquidity. This is due to firms with high liquidity prefers to use internal sources to finance their businesses. Several studies' results are consistent with the pecking order theory [10, 9]. Non debt tax shields (NDTS) are the substitute of the tax shield of debt financing as proposed by [10]. They proposed NDTS due to the consequence of paying large amount of interest from shielding taxes from debt financing. There are no specific or consistent findings from previous researches on this particular determinant of capital structure. For example, Titman and Wessels [6] found no effect on debt ratio can be found from NDTS. Wald [11] reported a significance relationship between leverage and NDTS.

The main objective of this study is to investigate the determinants of capital structure of Malaysian property developers. The side objective of this study is to study the similarities and differences that this study could obtain from the analysis between the selected property developers.

MATERIALS AND METHODS

The determinants of capital structure of the developers are investigated by using the annual report published by the companies. The annual report is acquired from a trusted and reliable online research database, Thomson One Banker. Their annual reports provide useful information on key accounts of the financial statements and most importantly, variables in this study can be calculated for duration of ten years financial term from the year of 2001 to 2010. Variables used in this study and their measurements are adopted from previous related studies. Sample of this study consist of ten public listed properties developers. The sample then is divided into two categories, top five and bottom five. Hence, make the total sample is five respectively for each

category. Total case or observation for each category for duration ten years is 50. Descriptive statistics is a set of brief descriptive coefficients that summarizes a given data set, which can either be a representation of the entire population or a sample. The measures used to describe the data set are measures of central tendency and measures of variability or dispersion. Mean or average of every variable in this study will be analyzed. Descriptive statistics and regression analysis of this study will be conducted by using IBM SPSS Statistics version 20 software. Regression analysis used in this study attempts to identify how much of the variance in the independent variables can be explained by the independent variable. A simple multiple regression models are used as a tool of analysis in this study to calculate the coefficient of determination. Regression model below will be used for both top five developers and bottom five developers.

$$Dr_{it} = a_1 + b_1PROF_{it} + b_2NDTS_{it} + b_3TANG_{it} + b_4GROW_{it} + b_5LIQ_{it} + e_{it}$$

Where:

- Dr_{it} = Debt ratio of firm i at time t .
 a_1 = Common y-intercept.
 b_1 - b_5 = Coefficients of the concerned independent variables.
 $PROF_{it}$ = Profitability of firm i at time t .
 $NDTS_{it}$ = Non-debt tax shields of firm i at time t .
 $TANG_{it}$ = Tangibility of firm i at time t .
 $GROW_{it}$ = Growth opportunities of firm i at time t .
 LIQ_{it} = Current ratio of firm i at time t .
 e_{it} = Error term of firm i at time t .

According to Investopedia.com, coefficient of determination is a measure used in statistical model analysis to assess how well a model explains and predicts future outcomes. It is indicative of the level of explained variability in the model. The coefficient, also commonly known as R-square, is used as a guideline to measure the accuracy of the model. One use of the coefficient of determination is to test the goodness of fit of the model. It is expressed as a value between zero and one. A value of one indicates a perfect fit and therefore, a very reliable model for future forecasts. A value of zero, on the other hand, would indicate that the model fails to accurately model the dataset. The t-test is used to determine if there is a significant relationship between the dependent variable and each independent variable. T-values of each independent variable acquired from regression analysis

will be compared with tabulated t-value and P-value of each independent variable will be compared to significance level of 95% for this study in particular. From the test then each independent variable can be determined whether it is significant or insignificant in explaining variation in dependent variable. Hypotheses of each explanatory variable are as follow. Hypotheses for both top and bottom Malaysian property developers are as follows:

Profitability:

- H_0 : Profitability is insignificant with debt ratio of the firms.
 H_1 : Profitability is significant with debt ratio of the firms.

NDTS:

- H_0 : NDTS is insignificant with debt ratio of the firms.
 H_1 : NDTS is significant with debt ratio of the firms.

Tangibility:

- H_0 : Tangibility is insignificant with debt ratio of the firms.
 H_1 : Tangibility is significant with debt ratio of the firms.

Growth Opportunity:

- H_0 : Growth opportunity is insignificant with debt ratio of the firms.
 H_1 : Growth opportunity is significant with debt ratio of the firm.

Liquidity:

- H_0 : Liquidity is insignificant with debt ratio of the firms.
 H_1 : Liquidity is significant with debt ratio of the firms.

RESULTS AND DISCUSSION

The following discussion discussed about the descriptive statistics results for the top five Malaysian properties developers. The mean for the leverage was 39.43%. This shows that the top five developers used less debt financing to finance their businesses. The balance of 60.57% of their capital structure consists of shareholder's

equity. In other words, equity was the major source of financing for the top five properties developers in Malaysia for over the past ten years (2001-2010). Meanwhile, on average, the top five developers earned only 7.12% of pre-tax profits over the past ten years. For the period of the ten years, 0.91% on average the top five developers used non-debt tax shield (NDTS) as substitute to tax shields on debt financing. According to DeAngelo and Masulis [10], firms with larger non-debt tax shields, are expected to use less debt in their capital structure. However, the NDTS of the top five developers were low on average. This indicates that the firms were use quite large amount of debt in their capital structure even though their debt proportion in their capital structure was minor over the past ten years. The average of tangibility over the past ten 10 years of the top five developers was 41.68%. This shows that more than half of proportion of their total assets was current or intangible assets. Firms with more tangible assets are likely to use more debt since the debt can be secured by collateralized tangible assets. The average of growth opportunity was -2.97 for the top five developers. Although trade-off theory suggest that firms holding greater growth opportunity in form of intangible assets tend to borrow less because intangible assets cannot be collateralized, the top five developers on the other hands held more intangible assets than tangible assets and borrow less for their financing in businesses but had lower growth opportunity. This may be due to other factors such as they earned less in sales over the past ten years. Last but not least, their liquidity was 5.98 on averages shows that the top five developers had a solid ability to meet their liabilities obligations. Firms with high liquidity ratio should borrow more. However, the results of the top five developers might consistent with the pecking order theory which suggests that firms with high liquidity prefer to use internal sources to finance their business.

The following discussion discussed about the descriptive statistics results for the bottom five Malaysian properties developers. The mean for the leverage was 32.05%. This shows that the bottom five developers use less debt financing to finance their businesses. The balance of 67.95% of their capital structure consists of shareholder's equity. In other words, equity was the major source of financing for the bottom five properties developers in Malaysia for over the past ten years (2001-2010). The results are similar to the results of top five developers in term of leverage, hence, the way they finance their businesses is also in similar fashion. Meanwhile, on average, the bottom five developers

earned only 6.26% of pre-tax profits over the past ten years. For the period of the ten years, 0.85% on average the bottom five developers use non-debt tax shield (NDTS) as substitute to tax shields on debt financing. According to DeAngelo and Masulis [10], firms with larger non-debt tax shields, are expected to use less debt in their capital structure. However, the NDTS of the bottom five developers are low on average. This indicates that the firms were use quite large amount of debt in their capital structure even though their debt proportion in their capital structure was minor over the past ten years. The average of tangibility over the past ten 10 years of the top bottom five developers was 45.56%. This shows that more than half of proportion of their total assets was current or intangible assets. Firms with more tangible assets are likely to use more debt since the debt can be secured by collateralized tangible assets. The average of growth opportunity is 0.68 for the bottom five developers. Although trade-off theory suggest that firms holding greater growth opportunity in form of intangible assets tend to borrow less because intangible assets cannot be collateralized, the bottom five developers on the other hands held more intangible assets than tangible assets and borrow less for their financing in businesses but had lower growth opportunity. This may be due to other factors such as they earned less in sales over the past ten years. Last but not least, their liquidity is 2.62 on averages shows that the bottom five developers had a strong ability to meet their liabilities obligations. Firms with high liquidity ratio should borrow more. However, the results of the bottom five developers might consistent with the pecking order theory which suggests that firms with high liquidity prefer to use internal sources to finance their business.

Based on the results from the analysis conducted, the coefficient of determination or R^2 for the top five Malaysian property developers is 0.390. It means 39% of changes in debt ratio or leverage can be explained by the changes in profitability, NDTS, tangibility, growth opportunity and liquidity of the firms. The other 61% of changes cannot be explained by the independent variables due to other factors that not included in the regression equation. A relatively low value of R^2 indicates that the model is inadequate in terms of its overall explanatory power. The most general cause of this problem is the omission of important explanatory variables. Meanwhile the coefficient of determination for the bottom five Malaysian property developers is 0.186. 18.60% of changes in debt ratio or leverage can be explained by the changes in profitability, NDTS,

tangibility, growth opportunity and liquidity of the firms. The other 81.40% of changes cannot be explained by the independent variables due to other factors that not included in the regression equation. Again, a relatively low value of R^2 indicates that the model is inadequate in terms of its overall explanatory power. The most general cause of this problem is the omission of important explanatory variables.

The regression equation for the top five Malaysian property developers is as follow:

$$DR = 19.601 + 1.312PROF - 2.473NDTS + 0.299TANG - 0.015GROW + 0.042LIQ$$

The regression equation for the bottom five Malaysian property developers is as follow:

$$DR = 21.152 + 0.685PROF - 0.279NDTS + 0.119TANG + 0.099GROW + 0.525LIQ$$

Based on the results from the t-test conducted for the top five Malaysian property developers, the results show that only profitability and tangibility are significant in explaining the variation in leverage of the firms at 95% confidence interval. Null hypotheses for profitability and tangibility are rejected and the alternative hypotheses are accepted in this study. Meanwhile, the other explanatory variables such as NDTS, growth opportunity and liquidity are insignificant in explaining the variation in leverage of the firms at 95% confidence interval. Hence, null hypotheses for NDTS, growth opportunity and liquidity are accepted and alternative hypotheses are rejected. Profitability has a positive relationship with debt ratio or leverage of the firms. It was also significant in explaining variation in leverage of the firms. This results is consistent with the trade-off theory which suggest a positive relationship between profitability and leverage because high profitability will encourage the firms to use debt financing as the financing provides the benefits of tax shields on interest payment. However, in contrast to this study, several other studies such as Titman and Wessels [6] and Rajan and Zingales [7] have reported a negative relationship between profitability and leverage. Their findings were consistent with pecking order theory which postulates that firms prefer to use internally generated funds such as profit earned (a source of internal funds) when available and choose debt over equity when external financing is required. Thus, null hypothesis for independent variable profitability is rejected and alternative hypothesis is accepted. NDTS is

insignificant to the study. However the results show a negative relationship between NDTS and leverage. Past empirical studies such as Wald [11] and Deesomsak, Paudyal, Pescetto [12] reported a significance negative relationship between NDTS and leverage. Bauer [13] has reported a negative but less significant relationship between NDTS and leverage. According to DeAngelo and Masulis [10], firms with large NDTS are expected to use less debt, vice versa, since taking debt will only increase the firms' burden on interest payment. Past empirical studies are mixed on this issue. Thus, null hypothesis for independent variable NDTS is accepted and alternative hypothesis is rejected. Tangibility has a direct and significant relationship with leverage of the firms. This finding is consistent with all three theories, trade-off theory, pecking order theory and agency cost theory whereby the theories suggest a positive relationship between leverage and tangibility. Past empirical studies such as Um [4] also have confirmed that tangibility has a positive relationship with leverage. Firms with more tangible assets are likely to use more debt since debt financing can be secured by collateralize tangible assets. Thus, null hypothesis for independent variable tangibility is accepted and alternative hypothesis is rejected. The analysis shows that growth opportunity is insignificant to the study however it has a negative relationship with leverage of the firms. The result is consistent with the trade-off theory and agency cost theory. According to trade-off theory, firms holding future growth opportunities in form of intangible assets, tend to borrow less than firms holding more tangible assets because growth opportunity cannot be collateralized. Agency cost theory also predicts a negative relationship because firms with greater growth opportunities have more flexibility to invest below optimal level, hence, transfer the wealth of debt holders to shareholders. In order to avoid this agency conflicts, firm with high growth opportunities should borrow less. Several empirical studies such as Eriotis, Vasiliou, Vaentoura-Neokosmidi [14] and Zou and Xiou [15] have confirmed this relationship. Thus, null hypothesis for independent variable growth opportunity is accepted and alternative hypothesis is rejected. Regression analysis of this study shows liquidity is insignificant in this study. However, the explanatory variable of this study has a positive relationship with leverage of the firms. The result is consistent with the trade-off theory. The theory suggests that companies with higher liquidity ratio should borrow more due to their ability to meet contractual obligations on time. No previous studies are consistent with this theory. On the

other hand, pecking order theory suggest that firms with greater liquidities prefer to use internal source of funds to finance new investments, thus, this theory predicts a negative relationship between liquidity and leverage. Several studies' results are consistent with the pecking order theory such as [8, 9]. Thus, null hypothesis for independent variable tangibility is accepted and alternative hypothesis is rejected.

Based on the results from the t-test conducted for the top five Malaysian property developers, the results show that none of the explanatory variables significant in explaining the variation in leverage of the firms at 95% confidence interval. Hence, all of the null hypotheses for the bottom five developers are accepted in this study. Based on the conducted analysis for the bottom five developers, profitability has a positive relationship with debt ratio or leverage of the firms but it is insignificant in explaining variation in leverage of the firms. This results is consistent with the trade-off theory which suggest a positive relationship between profitability and leverage because high profitability will encourage the firms to use debt financing as the financing provides the benefits of tax shields on interest payment. However, in contrast to this study, several other studies such as Titman and Wessels [6] and Rajan and Zingales [7] have reported a negative relationship between profitability and leverage. Their findings were consistent with pecking order theory which postulates that firms prefer to use internally generated funds such as profit earned when available and choose debt over equity when external financing is required. Thus, null hypothesis for independent variable profitability is accepted and alternative hypothesis is rejected. NDTs is insignificant to the study. However the results show a negative relationship between NDTs and leverage. Past empirical studies such as Wald [11] and Deesomsak, Paudyal and Pescetto [12] reported a significance negative relationship between NDTs and leverage. Bauer [13] has reported a negative but less significant relationship between NDTs and leverage. DeAngelo and Masulis [10] firms with large NDTs are expected to use less debt, vice versa, since taking debt will only increase the firms' burden on interest payment. Past empirical studies are mixed on this issue. Thus, null hypothesis for independent variable NDTs is accepted and alternative hypothesis is rejected. Tangibility has a direct and insignificant relationship with leverage of the firms. This finding is consistent with all three theories, trade-off theory, pecking order theory and agency cost theory whereby the theories suggest a positive relationship between leverage and tangibility. Past empirical studies such as Um [4] also have confirmed that

tangibility has a positive relationship with leverage. Firms with more tangible assets are likely to use more debt since debt financing can be secured by collateralize tangible assets. Thus, null hypothesis for independent variable tangibility is accepted and alternative hypothesis is rejected. The analysis shows that growth opportunity is insignificant to the study however it has a positive relationship with leverage of the firms. The result is not consistent with the trade-off theory and agency cost theory. However it does consistent with pecking order theory which suggests a positive relationship between growth opportunity and leverage. According to Um [4] a growing company needs more fund to finance their growing investments since their retained earnings are insufficient. Thus, firm will use debt financing to cover the insufficient funds. According to trade-off theory, firms holding future growth opportunities in form of intangible assets, tend to borrow less than firms holding more tangible assets because growth opportunity cannot be collateralized. Agency cost theory also predicts a negative relationship because firms with greater growth opportunities have more flexibility to invest below optimal level, hence, transfer the wealth of debt holders to shareholders. In order to avoid this agency conflicts, firm with high growth opportunities should borrow less. Several empirical studies such as Eriotis, Vasiliou and Ventoura-Neokosmidi [14] and Zou and Xiou [15] have confirmed this relationship. Thus, null hypothesis for independent variable growth opportunity is accepted and alternative hypothesis is rejected. Regression analysis of this study shows liquidity is insignificant in this study. However, the explanatory variable of this study has a positive relationship with leverage of the firms. The result is consistent with the trade-off theory. The theory suggests that companies with higher liquidity ratio should borrow more due to their ability to meet contractual obligations on time. No previous studies are consistent with this theory. On the other hand, pecking order theory suggest that firms with greater liquidities prefer to use internal source of funds to finance new investments, thus, this theory predicts a negative relationship between liquidity and leverage. Several studies' results are consistent with the pecking order theory such as [8, 9]. Thus, null hypothesis for independent variable liquidity is accepted and alternative hypothesis is rejected. In the recent research of Nadeem and Zongjun [16], they have reported that profitability, liquidity, earnings volatility and tangibility (asset structure) are related negatively to the debt ratio, whereas firm size is positively linked to the debt ratio. Non-debt tax shields and growth opportunities do not appear to be significantly related to the debt ratio.

Table 1: Summary of the relationship between the dependent variable and the independent variable

Variable	Top-5 Developers		Bottom-5 Developers	
	Relationship with Leverage	Theory	Relationship with Leverage	Theory
Profitability	Positive	Trade-off	Positive	Trade-off
Ndts	Negative	Trade-off	Negative	Trade-off
Tangibility	Positive	Trade-off pecking order and agency cost	Positive	Trade-off pecking order and agency cost
Growth Opportunity	Negative	Trade-off agency cost	Positive	Pecking orde
Liquidity	Positive	Trade-off	Positive	Trade-off

CONCLUSION

The main purpose of this study is to examine the determinants of the capital structure of Malaysian property developers. Based on the findings of this study, the study has shown that only profitability and tangibility is significant in explaining variation in leverage of the top five developers. The two factors also have a direct relationship with leverage of the firms. In conclusion, profitability and tangibility are the determinants of capital structure of Malaysian property developers. Meanwhile NDTs, growth opportunity and liquidity are not the determinants of capital structure of Malaysian property developers because this study found that they are insignificant even though they have a relationship with leverage of the top five developers and the bottom five developers. This is also one of the similarities between the top five developers and the bottom five developers. In conclusion, the top five developers and the bottom five developers have a minor proportion of debt financing in their capital structure referring to descriptive statistic of this study. This is another similarity that the developers have. The last conclusion of this study is the relatively low value of the coefficient of determination or R^2 could be improved by adding other relevant explanatory variables into the model of this study and increase the size of the samples could also improve the coefficient of determination of the study. When continue conducting future research on this topic, 'Determinants of Capital Structure of Malaysian Property Developers' in particular, it is recommended that future research should broaden the scope of the study by taking all public listed Malaysian property developers as sample for the study. Besides that, it is also recommended that future study should include other explanatory variables that might explain variation in leverage of the companies.

REFERENCES

1. Modigliani, F. and M.H. Miller, 1958. The cost of capital, corporation finance and the theory of investment, *American Economic Review*, 48: 261-97.

2. Myers, S.C. and N.S. Majluf, 1984. Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics*, 13: 187-221.
3. Bevan, A. and J. Danvolt, 2002. Capital structure and its determinants in the UK -a decompositional analysis, *Applied Financial Economics*, 12: 159-170.
4. Um, T., 2001. Determination of capital structure and prediction of bankruptcy in Korea, PhD thesis (Unpublished). Cornell University, 410 Thurston Ave, Ithaca, NY.
5. Myers, S., 1984. The capital structure puzzle, *The Journal of Finance*, 39: 575-592.
6. Titman, S. and R. Wessels, 1988. The determinants of capital structure choice, *The Journal of Finance*, 43: 1-19.
7. Rajan, R. and L. Zingales, 1995. What do we know about capital structure? Some evidence from international data, *The Journal of Finance*, 50: 1421-1460.
8. Mazur, K., 2007. The determinants of capital structure choice: evidence from Polish companies, *International Advances in Economic Research*, 13: 495-514.
9. Viviani, J., 2008. Capital structure determinants: an empirical study of French companies in the wine industry, *International Journal of Wine Business Research*, 22: 171-194.
10. DeAngelo, H. and R.W. Masulis, 1980. Optimal capital structure under corporate and personal taxation, *Journal of Financial Economics*, 8: 3-29.
11. Wald, J.K., 1999. How firm characteristics affect capital structure: and international comparison, *The Journal of Financial Research*, 22: 161-187.
12. Deesomsak, R., K. Paudyal and G. Pescetto, 2004. The determinants of capital structure: evidence from Asia Pacific Region, *Journal of Multinational Financial Management*, 14: 387-405.
13. Bauer, P., 2004. Determinants of capital structure: empirical evidence from Czech Republic, *Czech Journal of Economics and Finance*, 54: 2-21.

14. Eriotis, N., D. Vasiliou and Z. Ventoura-Neokosmidi, 2007. How firm characteristics affect capital structure: an empirical study, *Managerial Finance*, 33(5): 1-33.
15. Zou, H. and J.Z. Xiou, 2006. The financing behavior of listed Chinese firms, *The British Accounting Review*, 38: 239-58.
16. Nadeem, A.S. and W. Zongjun, 2011. Determinants of capital structure an empirical study of firms in manufacturing industry of Pakistan, *Emerald, Managerial Finance*, 37: 117-133.