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Corporate Capital Structure and Performance of Listed Construction Companies in Malaysia from 2005 - 2009

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ABSTRACT

This study examines corporate capital structure of listed construction companies in Malaysia from 2005 - 2009. Capital structure defines on how a firm would be able to fund its future investment projects via debt, equity or mixed. Capital structure represents both a net worth and long-term debt of the firms as the perpetual funding for firms (Varma and Aggarwal, 1998). This paper considers understanding the nature of some critical factors as independent variables, namely profitability, tangibility of assets, growth, size and non-debt tax shield on Malaysia corporate capital structure. The analysis revealed that profitability of the firm; growth opportunity and firm size had the significant relationship with dependent variable, leverage. Other than that, non-debt tax shield had the significant relationship with leverage for year 2006. Finally, there was no relationship between tangibility of assets and leverage for construction companies. Capital structure is so important, it could be considered as a basis of most institutions and organizations, and it is defined as the mixture of both debt and equity for financing.

Keywords: Capital structure, Profitability, Tangibility of assets, Growth, Size, Non-debt tax shield.

1. Introduction

The arguments about capital structure keeps on increasing and expanding after the important work done by Modigliani and Miller (1958). Modigliani and Miller contested that capital structure did not influence the wealth of company and consequently, in a perfect capital markets, decisions made about the capital structure did not influence the cost of capital of the firms. Thereby, Modigliani and Miller had not rejected the NOI approach. On the other hand, this standpoint had been criticized by Ezra Solomon (1963), who provoked controversy over an existing the best and suitable (optimal) capital structure and hence, decisions made about the capital structure had influenced the firm's cost of capital and the value of firm. There are so many arguments in finance literature about whether the ratio of debt and equity in capital structure had influenced the firm's value, since Modigliani and Miller theory had been published. Subsequently, the vast numbers of literatures like Weston (1961), Barges (1963), Wippern (1966), Sarma and Rao (1967) and Davenport (1971) had conducted so many works in accord with Modigliani and Miller's theory.

Subsequent to Modigliani and Miller's famous proposition, number of theories appeared to have examined the imperfection of capital markets like bankruptcy costs, agency costs, taxes and information asymmetries. Virtually, capital structure was very important, because there is a constant pattern of debt ratio evidenced by empirical studies, both for firms and across industries during the years. Authors such as Bowen, Lane and Huber (1982), Bradley, Jarrel and Kim (1984), Kester (1986), Titman and Wessels (1988), and Rajan and Zingales (1995) had reported debt ratios for specific industries. As a result, the critical factors determining the capital structure had been discussed for a long time in corporate finance. This discussion had led to the various theories pertaining to capital structure. However, the discussion about the critical factors determining the capital structure is still a current one. There are other studies such as Marsh (1982), Barton and Gordon (1988), Demirguc-Kunt (1992), Singh and Hamid (1992), Barclay, Smith and Watts (1995), Moh'd, Perry and Rimbey (1998), Wald (1999), Pandey (2001), Ozkan (2001) and Gonenc (2003) conducted in this area.

1.1. Research Problem

This study attempts to identify the critical factors determining the Malaysia corporate capital structure. Capital structure defined in the beginning of this study, as how a firm enables to fund its assets via equity, debt or mixed. Capital structure is a combination of a set of analysis for different factors in order to constitute a target capital, i.e. a combination of debt and equity (both common and preferred stock) and it also assists with increasing funds in order to fund the future investments.

With this preliminary definition, financial managers had tried to use the various mixtures of debt and equity in order to finance the further firm's investments. Thus, it is important to know how they are able to fund those investments. Here, it is necessary to state that there is a little work on critical factors determining the capital structure in emerging markets while most studies try to concentrate more on companies in developed countries.

Modigliani and Miller had set up the modern theory of capital structure in 1958. Rajan and Zingales (1995, p. 1421) cited that: "Theory has clearly made some progress on the subject. We now understand that the most important departures from the Modigliani and Miller assumptions had made capital structure relevant to a firm's value. However, very little is known about the empirical relevance of the different theories." Likewise, Harris and Raviv in (1991) on page 299 on their survey about the capital structure theories stated: "The model surveyed had identified a large number of potential determinants of capital structure. The empirical work so far had not been clear as to the various contexts." Thereby, there are quite numbers of theories pertaining to capital structure but neither of them was global and little related to the empirical studies.

1.2. Research Objectives

The main purposes of this study are:

1. To identify the essential determinants of the Malaysian corporate capital structure listed in Bursa Malaysia in the context of construction industry from period 2005 to 2009.
2. To find out which one of the theories used in the developed countries better explains the capital structure of Malaysia construction companies.

In developing or emerging markets, stock and/or capital markets available in Malaysia are not complete and these types of markets are relatively inefficient. For this reason, there is incompleteness and less efficiency existing in developing or emerging markets, resulting in incomplete financing decisions. Firms in developing or emerging markets possibly have not been able to make a sensible judgment in order to tail a specified and simple theory for their financing decisions. Therefore, it is necessary to investigate on critical factors determining the Malaysian listed construction companies' capital structure.

This study tries to identify critical factors determining the Malaysia corporate capital structure in the context of construction industry from period 2005 to 2009. This paper considers understanding the nature of some critical factors of capital structure. So in order to build the theoretical framework, the study includes profitability, tangibility of assets, growth, size and non-debt tax shield as independent variables and capital structure specifically leverage as a dependent variable. Thus, there are five independent variables in one side, and one dependent variable, namely leverage ratio on the other side.

2. Litrature Review

Research carried out by several researchers such as Booth, Aivazian, Demirguc-Kunt and Maksimovic (2001) or Huang and Song (2002) indicated that still some developing countries demonstrated negative relation among leverage and tangibility unlike direct association amongst tangibility and leverage findings by Frank & Goyal, (2003); Liu & Zhuang, (2009); Niu, (2009); Rajan & Zingales, (1995). Thereby, the conceptual framework (Figure 1) will show itself as follows:

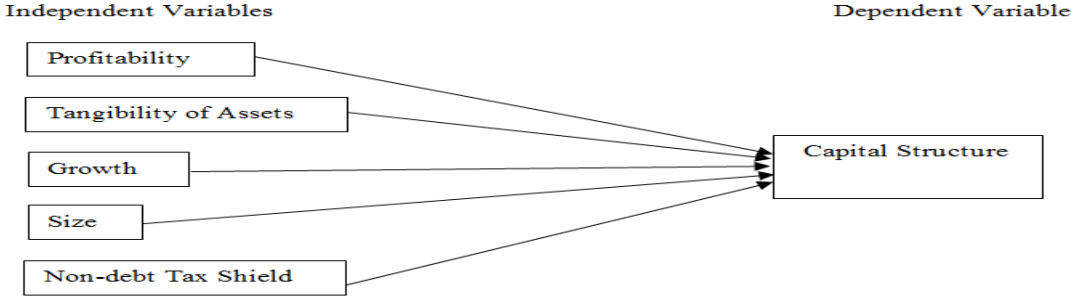

Figure-1. Conceptual Framework

2.1. Dependent Variable

2.1.1. Capital Structure

Thus far, a large number of empirical studies had been conducted for developed countries. Frank and Goyal (2004), Chaplinsky and Niehaus (1993), Friend and Lang (1988), Titman and Wessels (1988), Kim and Sorensen (1986) and Bradley et al. (1984), as an example, worked on US firms; Kester (1986) compared Japanese and US firms; Rajan and Zingales (1995) analyzed data of G-7 countries; Wald (1999) analyzed data of G-7 countries except Canada and Italy; Bevan and Danbolt (2002) conducted a research for United Kingdom corporate capital structure; Drobetz and Fix (2005) investigated about Swiss firms; Alonso, Iturriaga and Sanz (2005) and De Miguel and Pintado (2001) analyzed data of Spanish firms; Antoniou et al. (2002) examined data of France, Germany and UK; Panno (2003) conducted a research for both Italy and United Kingdom capital structure and finally Hall et al. (2004) analyzed data of Small-Medium Enterprises (SMEs) in Europe.

2.2. Independent Variables

2.2.1. Profitability of the Firm

Krasker (1986), Narayanan (1988); and Qian, Tian and Wirjanto (2007) found out there is a positive association between profitability and leverage ratio according to the trade-off theory, while pecking order theory declares that there is a negative association between profitability and leverage ratio. Trade-off theory states that by having a high level of profit, it is possible to see the level of the debt capacity for such firms.

This case supplements the tax-shield utilization as well. Um (2001) states that having a high level of profit will end up in both having a high level of debt capacity and tax shield. For this reason, it is anticipated that there is a positive association between profitability and leverage ratio. Thereby, according to Um (2001) and Frank and Goyal (2003) studies, there is a positive association between profitability and leverage ratio in trade-off theory assumption. Pecking order theory announced that firms with a high level of profit are more successful in case of applying their retained earnings for internal funds rather than firms with a low level of profit. Therefore, according to Myers (1984) and Myers and Majluf (1984), there is a negative association between profitability and leverage ratio in the view of pecking order theory. However, some empirical researchers such as Barton and Gordon (1988), Allen (1991), Wiwattanakantang (1999), Chen (2004), Pandey (2004) and Tong and Green (2005) reported a negative association between these two variables. Nevertheless, Tang and Jang (2007) had not attained any considerable association between profitability of the firm and debt ratio for lodging firms.

Trade-off theory states that firms having a high level of profit ought to have a high level of debt owning to the fact that having more earnings guard firms against taxes. Free cash flow theory states that firms having a high level of profit ought to have a high level of debt owning to the fact that this act will control the managers of the firm regularly in order to know how they work and will persuade them to pay cash dividend rather than waste money by managers on such inefficient investment plans. Pecking order theory states that companies are most likely to fund their further investments internally instead of externally. Thus, firms having a high level of profit ought to have less debt owning to the fact that they are less likely to use external funds (Ahmad and Abbas, 2011).

2.2.2. Tangibility of Assets

There is a positive association between tangibility of assets and leverage ratio in the view of trade-off theory; because of debt funding, fixed assets are applied as collateral. It means that if the value of collateral for fixed assets goes up, then the company will attain borrowing capital effortlessly (Myers, 1977; Myers and Majluf, 1984; Williamson, 1988; Harris and Raviv, 1991; Thornhill, Gellatly and Riding, 2004). However, there is less asymmetry information for firms having more tangibility of assets, i.e. fixed assets, from pecking order theory standpoint. As a result, they prefer to finance through equity. Pecking order theory states that there is a negative association between tangibility of assets and short-term debt and positive association between tangibility of assets and long-term debt financing (Qian et al. 2007; Feikadis and Rovolis, 2007). Some studies such as Booth et al. (2001), Upneja and Dalbor (2001), Fattouh, Scaramozzino and Harris (2003), Chen (2004), Pandey (2004), Zou and Xiao (2006) and Tang and Jang (2007) reported there is a positive association between tangibility of assets and debt ratio.

2.2.3. Growth Opportunities

According to Myers (1984), there is a positive association between growth opportunities and leverage ratio in the view of pecking order theory. This returns to asymmetry information existing

between internal managers of the company and outside investors. De Angelo and Masulis (1980), Myers (1984), Myers and Majluf (1984), Jensen (1986), Hall, Hutchinson and Michaelas (2000), Benito (2003) and Zou and Xiao (2006) found out there was a positive association between leverage ratio and growth opportunities. However, according to Stulz (1990), Myers (1977) and Jensen and Meckling (1976), there was a negative association between leverage ratio and growth opportunities. As such, there was abnormal financial distress costs for growing firms, because they carried more risk. However, growing firms tried to issue equity in order to finance its growth, because there was a capacity problem in debt financing, so the firm attempted to alleviate such capacity problems by issuing equity (De Angelo and Masulis, 1980; Myers, 1984; Myers and Majluf, 1984; Hall et al. 2000; Benito, 2003; Zou and Xiao, 2006). Some studies such as Dalbor and Upneja (2002), Zou and Xiao (2006) and Tang and Jang (2007) found out there was a positive association between debt ratio and the ratio of market to book value. Subsequently, Rajan and Zingales (1995) reported a negative association between debt ratio and growth opportunities.

2.2.4. Size of the Firm

There is a positive association between the firm size and leverage ratio in the view of trade-off theory, because larger sized firms were inclined to be more diversified and there was less probability of financial distress as opposed to smaller firms. Larger companies had a low level of bankruptcy costs compared to smaller ones, so they applied debt as an advantage (Ang, 1992; Homaifar, Zietz and Benkato, 1994; Wiwattanakantang, 1999; Bevan and Danbolt, 2002). On the other side, there was a negative association between the size of the firm and leverage ratio in the view of pecking order theory, because asymmetry information for larger firms was not so serious. Thereby, the cost of capital for larger firms ought to be less as opposed to smaller ones as mentioned by Zou and Xiao, (2006); and Rajan and Zingales, (1995). Empirical studies such as Dalbor and Upneja (2002), Pandey (2004), Gaud, Jani, Hoesli and Bender (2005), Huang and Song (2006) and Qian et al. (2007) reported that there was a positive association between the size of the firm and leverage ratio as per trade-off theory.

2.2.5 Non-Debt Tax Shield

Interest expenses can contribute to pay less tax. Other than interest expenses, there is a non-debt tax shield, such as depreciation. De Angelo and Masulis (1980, p.21) stated: "Ceteris paribus, decrease in allowable investment-related tax shield (e.g. depreciation deductions or investment tax credits) due to changes in the corporate tax code or due to changes in inflation reduced the real value of tax shields increasing the amount of debt that firms employed. In cross-sectional analysis, firms with lower investment related tax shields (holding before-tax earnings constant) would employ greater debt in their capital structures." Thus, they cited that there was a substitution for tax shield of debt called non-debt tax shield and hence, non-debt tax shield was negatively associated to financial leverage as mentioned by Bauer, (2004). Despite the fact that some authors such as Titman and Wessels (1988) and Huang and Song (2002) had reported a negative association between non-debt tax shield and financial leverage, other researchers like Chaplinsky and Niehaus (1993) and Bradley et al. (1984) found out that non-debt tax shield is positively associated to financial leverage.

2.3. Capital Structure Theories

Modigliani and Miller (1958) had indicated that there are four various kinds of theories such as static trade-off theory, pecking order theory, agency cost, and signaling theory in regard to the discussion of capital structure. Table 1 shows the anticipated sign of association between financial leverage of the firm and specified firm characteristics discussed in this study.

Table-1. Anticipated Sign of Factors Examined in the Study

Determinants	Static Trade-off	Pecking Order	Agency Cost	Signaling
Profitability	+	-	+	-
Tangibility of Assets	+	+/-	-	N.A
Growth Opportunities	-	+	-	-
Size of the Firm	+	+/-	-	-
Non-Debt Tax Shield	-	-	N.A	N.A

2.3.1 Static Trade-Off Theory

The static trade-off theory, also called tax based theory, expresses that a firm can attain its best capital structure whenever there was a balance between tax benefit of debt and the costs of debt like bankruptcy costs and financial distress provided that decisions on further investment and the assets of the firm keep constant (Baxter, 1967; Altman, 1984). This theory also states that if firm issues equity, it means that this firm was parting with the optimal capital structure and that was bad news for the company. Myers (1984) indicated that companies should set a ratio of target debt to the value, and then gradually attempt to reach it, if they were going to apply this theory. Nevertheless, Myers (1984) recommended that if the equity issued by managers is undervalued, then managers should not issue more. Therefore, investors felt that when the firms issued equity, their prices were over or fairly priced. As a consequence, the reaction of investors on issuing equity would be negative and then, there will be no tendency for issuing equity by management of the firm.

2.3.2. Pecking Order Theory

Stewart C. Myers and Nicolas Majluf (1984) suggested a theory named the pecking- order theory. Another name for this theory is the Information Asymmetry theory the theory indicates that if a firm tries to fund its new investment projects, it should finance it with its retained earnings, then debt and eventually equity as a last choice. They say if equity shows itself at the beginning and finishing of this theory, then it would be so tough to define the optimum of capital structure. There is no need for the company to reveal its future financial information or to incur flotation costs if the firm applies its internal funds for investments. Shariff Khan, (2010) indicated that the potential investment opportunities and perhaps its gains from it were included in the proprietary financial information of the firm, if and only if the firm accepts such potential investments.

According to Odit and Gobardhun (2011), the information asymmetry theory, i.e. pecking order theory, says that insiders or the management team of the company had better access to the financial plans of the firm such as investment opportunities or stream return of the company as opposed to the external investors. Myers (1984) states that companies initially have to apply internal funds, i.e. retained earnings, and then referred to external if internal budget was insufficient. This was regarded as "pecking order theory", which means that the firm should use its retained earnings, i.e. internal funds, then invokes debt and eventually if those funds are not sufficient, go through the issuance of equity (Myers, 1984). This theory was inconsistent with previously mentioned Static Trade-off theory (e.g., there is a negative association between profitability and debt).

2.3.3. Agency Cost Theory

The agency theory shows that there would be conflicting effect between two parties, shareholders and managers or debt holders and equity holders. There are some costs triggered by these conflicts. If these costs are minimized, then the firm would have had an optimum capital structure. Agency cost theory is very important in corporate finance strategy and decisions, because there would be a conflict between debt holder and shareholder as indicated by Jensen and Meckling, (1976). It is possible for shareholders to capture the management viewpoints for further decision making if its companies are confronting the financial distress. This action will result in moving the funds away from debt holders to equity holders. If such a transition of funds occurred, then the advanced debt holder would demand a high rate of return for possible transportation of funds. However, the agency conflict between managers and shareholders might be decreased by debt and its payment of interest. Meanwhile, if management of the firm were unable to pay interests when they are owed, then debt holders have the right to be compensated. For this reason, the management of the firm would be worried about their positions. Therefore, they would strive so hard to be efficient and to operate the firm in an efficient manner so that they would be able to pay the interest and maximize the shareholders wealth as they expected (Abu Mouamer, 2011).

2.3.4 Signaling Theory

Ross (1977) established a theory named signaling theory. This theory was related to the asymmetry of information. This theory stated that both employees and managers of the firm collaboratively had more knowledge about the profit and further investments of the company as well as the cash flow. This signified that persons out of the company have no access to get such information (Norvaišienė and Stankevičienė, 2007).

According to Norvaišienė and Stankevičienė (2007), having knowledge about the immediate future profit, the managers of the firm was not going to issue equity. If such investment plans were successive

ones, then the possible cash flow would cause the share price of the company to rise, therefore the possible cash flow, i.e. profit, ought to be divided between the new stockholders. Although the profit of the firm had increased but the new project should be financed with the borrowed capital and likely to pay interest. If the shareholders of the company knew the possible growth of the firm, then they would be inclined to capture the borrowed capital even if the optimal capital structure of the firm was modified. Klein, O'Brien and Peter (2002) pointed out that the firm probably would issue equity for the new shareholders to negate the possible loss if the possible growth of the firm was negative. As a result, the prospects in business and the capacities of internal financing would be critical factor when determining the financing decisions of the firm.

2.4. Firm Characteristics

The size of the firm, growth, sales and liquidity of the firm were likely to affect capital structure of the company. Number of researchers had upheld the foregoing subject on their studies. Bates (1971), as an example, unleashed that Small Medium Enterprises (SMEs) were inclined to depend on their savings as opposed to larger sized enterprises.

Davidson and Dutia (1991) had conducted a research of small firms in order to measure its profitability, liquidity and financial leverage. Their findings showed that larger firms had higher levels of liquidity as opposed to SMEs. Joeveer (2005) tried to contrast the sources of funding applied by small and large firms. They found out that small companies had limited funds and they were confronted with obstacles as they attempted to choose their optimal capital structure (Dogra and Gupta, 2009).

2.5. Determinants of Corporate Capital Structure

According to several numbers of theoretical studies, three different types of critical factors viz, critical factors related to internal (specific) corporate, critical factors related to national institution and critical factors related to macroeconomic, which determine the capital structure. Frank and Goyal (2004) on their research on US firms found out that the internal critical factors of the corporate would likely constitute approximately 30 percentages of differences in the corporate capital structure existing in the country.

There are some critical factors determining the corporate capital structure. Quite numbers of researches had done in order to determine a series of critical factors as well. For example, Cassar and Holmes (2003) applied some characteristics of the firm like growth, risk, structure of asset, profitability and size of the firm in their research. The findings showed that profitability, asset structure and growth of the firm were critical factors determining the corporate capital structure. The extent of funding used by the firm or corporate capital structure could determine the structure of the assets.

Lucey and Bhaird (2006) confirmed the results by conducted a study using 299 Irish firms. Life cycle and the Pecking order were examined in order to make testable assumptions. By using multivariate regression, the relationship between critical factors such as age of the firm, growth, size of the firm, the structure of ownership and the use of internal and external equity or long-term debt were recognized in prior studies. The relationship between age of the firm, growth, size of the firm and the way of securing debt funding as collateral were also identified by Dogra and Gupta, (2009).

3. Conceptual Framework

3.1. Model Specification

Based on this conceptual framework, the hypothesis regression model is applied in this study which is conformed to Titman and Wessels (1988) and Myers and Majluf (1984). The hypothesis model is employed as follows:

Leverage = α +β1 Profitability + β2 Tangibility + β3 Growth + β4 Size + β5 Non-debt Tax Shield + ε

Leverage = Total Liabilities / Total Assets

α = Intercept for the given year (T)

β = Coefficient assigned to each independent variable

Profitability = Earnings Before Interest and Taxes (EBIT) / Total Assets; EBIT defines net operating income minus interest income.

Tangibility = Tangible Fixed Assets / Total Assets; Tangible Fixed Assets include lands, buildings, construction in progress, plant and machinery, motor vehicles and others.

Growth = Percentage Change in Total Assets; the formula for growth is as follows: (Total Assets $_{T}$ –Total Assets $_{T-1}$) / Total Assets $_{T-1}$

Size = Natural Logarithm of Total Assets, i.e. Ln (Total Assets)

Non-debt Tax Shield = Depreciation Expense / Total Assets
ε = Random Error Term

In this hypothesis multiple regression, leverage defines the ratio of total liabilities to total assets. The model is also similar to the previous model studied by Rajan and Zingales (1995), except that they had not applied non-debt tax shield in their research as an independent variable.

This study also attempts to apply the book value as a measurement rather than the market value for two specific reasons. Firstly, it is simple to be calculated and book value of leverage considers when bankruptcy occurs. Secondly, based on Banerjee, Heshmati and Wihlborg (2000), the tax shield is not influenced by the market value of debt and it is irrelevant to influence on debt payment and to generate the cash saving via tax shield.

Table 2 reports the summarized results for all years examined in this study.

Table-2. The Summarized Results for All Years Examined

Hypotheses	2005	2006	2007	2008	2009	Average
H1: A relationship exists between profitability of the firm and financial leverage	Accept	Accept	Accept	Accept	Accept	Accept
H2: A relationship exists between tangibility of assets and financial leverage	Reject	Reject	Reject	Reject	Reject	Reject
H3: A relationship exists between growth opportunities and financial leverage	Accept	Accept	Accept	Reject	Reject	Accept
H4: A relationship exists between firm size and financial leverage	Accept	Reject	Accept	Accept	Accept	Reject
H5: A relationship exists between non-debt tax shield and financial leverage	Reject	Accept	Reject	Reject	Reject	Accept

4. Discussion and Findings

The results reported that profitability of the firm shows itself as the most critical factor determining the Malaysia capital structure in the field of construction companies due to the significant relationship with leverage for all years conducted in this study. This was consistent with the findings of Booth et al. (2001). Afterwards, size of the firm, growth opportunity, non-debt tax shield and tangibility of assets are categorized in the descending level of influence as the critical factors determining the capital structure in the context of construction industry. Therefore, the first research objective (to identify the essential factors determining the Malaysia corporate capital structure) has been met.

The multiple regression coefficients report to what extent each of these explanatory variables such as profitability, tangibility, growth, size and non-debt tax shield had an effect on leverage ratio of the firm. The summary of all conducted regression for all years will be as follows:

Year 2005:
Leverage = -0.457 – 1.202 (Profitability) + 0.073 (Size) + ε
Year 2006:
Leverage = -0.331 – 2.386 (Profitability) + 0.316 (Growth) + 0.064 (Size) + ε
Year 2007:
Leverage = -0.320 + 0.094 (Profitability) + 0.058 (Size) + ε
Year 2008:
Leverage = 1.327 – 5.710 (Profitability) + ε
Year 2009:
Leverage = 2.329 + 3.798 (Profitability) – 0.146 (Size) + ε

Arithmetic Average
Leverage = 0.010 + 3.176 (Profitability) – 0.347 (Growth) + ε

The second objective of this study was to find out which one of the theories used in the developed countries better explains the capital structure of Malaysia construction companies. Pecking order theory and trade-off theory had been found out as the important theories in this study. However, the pecking order theory plays a prominent role in the capital structure of construction companies as opposed to the trade-off theory. This was also consistent with the findings of Booth et al. (2001). Pecking order

(information asymmetry) theory says that if a firm tries to fund its new investment projects, it should finance with its retained earnings, then debt and eventually equity as a last choice. The information asymmetry theory, i.e. pecking order theory, also states that insiders or the management team of the company had better access to the financial plans of the firm such as investment opportunities or stream return of company as opposed to the external investors. Thereby, it seems that this study has answered all questions proposed.

H1: A relationship exists between profitability of the firm and financial leverage.

Profitability of the firm is significantly correlated to the dependent variable, leverage for all years conducted in this study (p-value < 0.05). The results showed that profitability of the firm is inversely related to the leverage as per pecking order theory for years 2005, 2006 and 2008.

H2: A relationship exists between tangibility of assets and financial leverage.

Tangibility of assets was not related to the dependent variable, leverage for all years examined in this study (p-value > 0.05); therefore, the hypothesis testing statement was rejected. However, tangibility of assets was significantly correlated to the non-debt tax shield for all years studied (p-value < 0.05).

H3: A relationship exists between growth opportunities and financial leverage.

Growth opportunity was significantly correlated to the dependent variable, leverage for years 2005, 2006, 2007 and on average (p-value < 0.05). The results showed that growth opportunity was positively related to the leverage for year 2006 as per pecking order theory.

H4: A relationship exists between firm size and financial leverage.

Size of the firm is significantly correlated to the dependent variable, leverage for years 2005, 2007, 2008 and 2009 (p-value < 0.05). The results reported that firm size is positively related to the leverage for years 2005, 2006 and 2007 as per trade-off theory, because firms in larger size are inclined to be more diversified and there is less probability of financial distress as opposed to smaller firms.

H5: A relationship exists between no-debt tax shield and financial leverage.

Non-debt tax shield was significantly correlated to the dependent variable, leverage for year 2006 and on average (p-value < 0.05). However, there was no anticipated sign between leverage and non-debt tax shield discovered in this study for listed construction companies.

5. Conclusion

The main purpose of this study is to identify the critical factors determining the Malaysia corporate capital structure listed in Bursa Malaysia in the context of construction industry from period 2005 to 2009. Hence, the findings showed that profitability of the firm considers as the most critical factors determining the Malaysia construction companies for all years conducted in this study. However, tangibility of assets shows no significant relationship with the leverage for all years examined in this study. However, it might be significant in other industries as one of the important characteristics of the firm. There are some additional challenges such as environmental regulations or technology developments exist in some industries. Pecking order theory and trade-off theory had been found out as the important theories in this study. However, pecking order theory plays a prominent role in the capital structure of construction companies as opposed to the trade-off theory.

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