

Study of the capital structure and corporate performance on the listed company in...

[Business](#), [Company](#)



1. Introduction (brief introduction)

The trade-off theory suggests an optimal mix of debt and equity for a firm to make the cost of capital structure minimum. There are a lot of empirical studies to figure out the determinants of capital structure, these determinants which imply that certain factors influence the capital structure that lead to the minimum cost of capital. So the managers should spent their time and effort to these determinants which can affect the capital structure.

However, there are no research studies to show whether the expected minimum cost of capital can achieve the maximum financial performance and make the welfare of shareholders maximum. Therefore, there is no empirical research to study the direct relationship between the determinants of capital structure and the financial performance and shareholders' wealth. This research is very important for company's management, if there is no direct relationship between them, the manager can save much time and effort from it.

1. 1 Motivation of research

The determinants which can minimum the cost of capital structure attract the financial managers' lots of time and work to study and achieve. However, there are no researches to study the direct relationship between the determinants of capital structure and the financial performance and shareholders' wealth. So themotivationof this paper attempts to study whether determinants of capital structure have a direct effect to shareholders' value and the performance of the corporate.

1. 2 Objective of the research

The objectives of the research are based on studying whether determinants of capital structure have a direct effect on shareholders' value and the performance of the corporate. For example,

One obligation is to figure out which determinant is most important to capital structure in the relationship between determinants of capital structure and debt level. The other objective is to test whether the debt level has an effect on a firm's financial performance.

1. 3 Structure of the paper

The first part is introduction, the second part is literature review, and the third part is hypothesis, the fourth part is methodology which includes the data collection, sample set, regression model and other things. The fifth part is analysis of the data. The sixth part is the conclusion.

2. Literature review

2. 1 Modigliani and Miller theory

Modigliani and Miller's theory provides the background for the subsequent theories. Modigliani & Miller (1958) states the initial theory of capital structure. In the paper 'cost of capital, corporate finance and the theory of investment', Modigliani & Miller (1958) assume three positions.

Modigliani & Miller proposition one

Modigliani & Miller (1958) state that:

“ The market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate appropriate to its class.”

The formula is:

$$V_j = D_j + E_j = X_j / P_k \text{ (Figure 2. 1 Modigliani \& Miller 1958)}$$

Where

V_j means the value of the firm j ; D_j means the debt value of firm j ; E_j means the equity value of firm j ; X_j means the net return of the firm j before the increase and tax; P_k means the capitalization rate.

This proposition means that the company cannot change the market value of the firms' securities through the way of changing the capital structure. It means that in the different capital structure, the market value of the company is always the same. In other words, to the shareholders of the company, there is not better capital structure and the worse capital structure.

Modigliani & Miller proposition two

Modigliani & Miller (1958) state that:

“ The expected yield of a share of stock is equal to the appropriate capitalization rate for a pure equity stream in the same risk class, plus a premium related to financial risk equal to the debt-equity ratio times the spread between the capitalization rate and the cost of debt.”

The formula is:

$$l_j = P + (P - r) D_j / E_j \text{ (Figure 2.2 Modigliani \& Miller 1958)}$$

Where

l_j means the market value of the firm j ; P means the expected return at the rate P ; r means the interest rate on the debt financing; D_j means the debt value of firm j ; E_j means the equity value of firm j .

This proposition is developing from the proposition one, it can explain like the asset of the firm can produce a profit stream. And then this stream will affect the value of the firm. The value of the firm can be discounting of the profit stream at a discount rate which is based on risk degree (Megginson 1997).

From the two above propositions, they imply that the increasing of the debt of a firm would not cause the value of the firm to increase. Because the benefit of the cheaper debt will be offset by the more cost of equity (Ghosh, 2008).

These two propositions should be under a perfect world which is no tax, perfect capital market; credible disclosure of all information; no asymmetric information and no transaction and agency costs.

Modigliani & Miller proposition three

It is not a mistake about the above two propositions, but there is a huge challenge faced by the theory in the fact. It is said that the capital structure would not affect the firm's value based on the Modigliani and Miller theory.

The firms will choose the debt-equity ratio randomly in the different

industries, different departments and different area. However, in fact, the airlines, the utility companies and the real estate will choose the high debt-equity ratio, and the drugs companies and the advertising companies are depending on their own money. In this situation, Modigliani and Miller realized the importance of the corporate tax, so in the study work in 1963, they add the corporate taxes in the Modigliani and Miller theory (Ghosh, 2008).

Modigliani & Miller (1963) assume that the value of a levered firm which is equal to sum of the un-levered firm's value and a premium derived by discounting to perpetuity the stream of tax savings which is applicable so long as the firm has sufficient taxable capacity. After add the corporate tax, based that the debt interest has the tax deductibility, so it cause the firm's value raise with the increasing of the debt-equity ratio. As a result, if the firm wants to have the maximum firm's value, it should choose the 100% debt financing.

However, at 1997, Miller did more work about the study of the capital structure. Miller (1977) put the personal taxes in their theory.

MM theory is essential to the history of the capital structure. The appearance of the MM theory means the beginning of modern capital structure theory. Although the MM theory has many strict conditions which is not reasonable in the real world, but MM theory give a starting and structure to the study of the capital structure.

2. 2 Trade-off theory

Trade-off theory is developed base on the Modigliani & Miller theory, because the Modigliani & Miller theory only thinks about the debt interest which is the interest tax shields, but it ignores the extra cost and risk which cause by the debt, for example the cost of agency and the financial distress. On the other hand, the trade-off theory considers the both sides. The trade-off theory is also named the optimal capital structure theory which means the trade off between the interest of the debt and the risk and cost of the debt (Brigham & Houston, 2004).

Trade-off theory thinks that MM only can be accepted in the perfect market conditions, but at the same time, they think that the market is not perfect, the two phenomena to show the market's unperfected are tax shields and the cost of bankruptcy (Brealey & Myers, 2000).

Under the trade-off theory, firms should consider the agency cost and the bankruptcy cost, when the debt ratio raise, then the tax effect raise, as a result, the cost of the agency and bankruptcy increase at the same time. If the firm's agency cost and the bankruptcy cost are more than the tax effect, then the firms' value decreases (Brealey & Myers, 2000). So in the trade-off theory, they assumed that when the marginal cost of debt in a company (such as the agency cost and the cost of bankruptcy) is the same as the marginal benefit of the debt (such as the debt interest of tax shields), the firm's value become the maximum (Gonzalez & Gonzalez, 2008).

Trade-off theory explains the different of the capital structure in different industries. For example, the hightechnologygrowth companies' assets mostly are intangible asset with high risk, so they are usually have less debt; on the other hand, some airlines' asset are mostly tangible asset with low risk, so they usually can have high debt ratio.

2.3 Peaking order theory

Peaking order theory is firstly raised by Myers and Mujluf in1984, peaking order theory is important for the theory of the capital structure, the peaking order is based on the signaling and information asymmetry theory. Peaking order theory studies the problem of finance order of the companies. It explains why the companies with the high profitability have the low financial leverage: the most reason is that these companies have enough ability to internal finance, they don't need the external finance, so they have low debt ratio. On the other hand, the companies with the low profitability do not have the ample resources to use in the investment and the payment, they need external finance, so they have high debt ratio (Myers, 1984).

The peaking order hypothesis is based on three assumptions about the financial behavior of the managers in companies (Myers and Mujluf, 1984).

The first one is that because of the signaling and information asymmetry, so the managers will be informed more information about the opportunities of the investment or the firms than outsiders or new investors.

The second one is that the companies like the internal finance more than external finance, because this way does not create any negative effect to the

fluctuation of the share price. If the company must choose the external finance, the firm will firstly start with the debt to issue the safety security; secondly will choose the hybrid security, for example, the convertible bonds; lastly, the company will choose the equity, this order is based on the least effect to the share price.

The third one is that the companies have much profit, and then it can choose to internal finance to satisfy the need of the money, so they have the low debt ratio. On the other hand, the companies with the low profitability need external finance to satisfy the need of the money, so they have high debt ratio.

The firm's capital structure, the strategy of finance and the dividend policy are the way about insiders to send the signaling. When the company has a new high profitability investment program, if the new program carries out, the firm's value must increase. Because of the signaling and information asymmetry, if the company chooses to issue the new equity to finance, then the company always is regard as having the problem with the money by the market. So at this time, the best way to finance is choosing the internal finance, this way not only can avoid the share price decreased by the external finance, but also can make sure about the profit of the shareholders. When the company does not have enough ability to internal finance to satisfy the fund need of the program investment, the best external finance choice is the debt finance. Because if the company choose the debt finance, when the program has profit, the creditors only get the fixed interest and most of the profit is belong to the shareholders. Moreover, if the

company takes the company asset as the mortgage in the debt finance, it causes very few effects to the company's value.

So the company's finance order should be like this: the first one is internal finance, then the second one is debt finance, then the third one is issuing security, it means that the company always tries their best to use the internal accumulation money to investment, then use the debt finance still the debt finance may cause financial crisis of the company, the company would issue the safety security than the risky ones; the last choice is issuing the equity.

2. 4 Signaling and information asymmetry theory

As the above peaking order said: if the company issues a new equity to the market, it would let the investors misunderstand the company's present situation or take the bad signals about the company, the investors or the new shareholder will doubt the company's development in the future, they will worried about the company's growth (Ghosh, 2008). All this caused by the signaling and information asymmetry.

Ross & Leland & Pyle (1977) state the theory of the signaling and information asymmetry, their theory based on the asymmetry of the information about the real firm's value and the real investment opportunity between the insiders and outsiders.

The signaling and information asymmetry theory thinks that the asymmetry of the signaling and information warp the firm's market value, it caused the strategy of the investment inefficiency. Different capital structure sends the

signaling about the quantity of the company to the market, and they try their best to avoid sending the negative signaling.

In the theory, the firm uses the appropriate way to send the signaling of the firm's value to the market to affect the decision of the investors. The outsider investors regard the firms with the high debt ration as the high quality ones, because the high quality firms can accept the high stress of the interest cause by the high debt finance. On the other hand, the low quality firms cannot accept the huge interest caused by the high debt finance. So to the investors, they can observe the firms' debt ratio to distinguish the quality of the firms.

Ross (1977) found that if in the investment level is fixed, then the debt ratio can be a signaling to send the personal information to the insiders. So in the Ross model, it build on the base of the problem of the signaling and information asymmetry between the insider managers who well know about the information and the outsider investors who poor know about the information. In the Ross model, the profit of the firm follows the random distribution of the first-order, and then the managers know well about the real distribution of the firms' profit, however, the investors do not know about this. So this situation caused that if the market overate of the firm's value, then the managers will get profit from this situation; on the other hand, if the firm declares the bankruptcy, the managers will get punishment. As the above said that, the high quality companies can raise the debt ratio to tell themselves with the poor quality companies. So the main conclusion of the Ross theory is that the firm's value or the profitability has the positive

relationship with the debt ratio, moreover, if the other conditions are the same, the increasing of the punishment to the manager (for example, the loss of the goodwill or more cost to find a job) will caused the decrease of the debt ratio.

Leland & Pyle (1977) study the way to send the signaling about the rate of the equity of the insiders. The business executives have the inside information about the program they want to invest, but due to the asymmetry of signaling and information, the market value show the average quality of the program, mass poor quality programs appear because of the existing of the moral hazard. In order to let the high quality program can do financing, the signaling must be sending to the market. So if the business executives who have the inside information about the program can invest the program, then it can be show to outsiders and the market the signaling about the real quality of the program.

2. 5 Agency cost theory

The agency cost theory first stated by Jensen & Meckling in 1976. They said that in the company, the agency relationship would be as follow:

“ A contract under which one or more person (the principal) engages another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent.”

— Jensen & Meckling (1976)

The agent's unperfected behavior caused the creation of the agency problem. There are two forms of the agency cost, they are two kinds of conflict, one conflict is between the shareholders and the managers, and the other conflict is between the shareholders and the creditors.

The first conflict comes from that the managers are not the wholly owner of the company, if the managers wholly own all company, then the control and the ownership would be together instead of the separation, then the managers can have the all profit or pay the all cost. However, due to the managers cannot own the whole company, so the managers cannot fully own the whole profit which created by their hard working, furthermore, they must accept the all cost. On the other hand, if the managers increase the consumption when they are still in their position, they can have the all benefit and only accept some cost. This situation caused the managers do not devote all their enthusiasm and energy in the work, however, they spend much time on consuming, this led the firm's value decrease.

Moreover, managers will think their profitable more important than the shareholders' profitable, so if the ownership of the managers in the firm is decrease, they may not spend whole energy to find the high profitable program to invest. This action will make the firm's performance decrease.

In the second conflict, to a investment program which is supported by the debt finance, if the investment of the program is successful, then the shareholders will get the most profit, but if the investment of the program is not successful, then the creditors will be charge the most loss, this situation

make shareholders prefer to invest the programs with high risky. When the creditors realize these motivations of the shareholders, they will ask for higher rate of return of the securities (Diamond & Hirshleifer & Thakor, 1989). To this kind conflict, Diamond (1989) and Hirshleifer & Thakor (1989) think that the company and the managers will choose the safety program separately from their own reputation, this will remit the conflict between the shareholders and the creditors.

Because of the existing of the above two forms of the agency cost, there is possible to make the agency cost become minimum, and caused the firm's value become maximum. So the objective of the agency cost theory is finding the best agency relationship to reconcile the profit relationship of the all parties become maximum, led to increase the firm's value. When the margin profit of debt financing is equal to the margin cost of debt financing, the capital structure is optimal.

2. 6 The cost of financial distress

The cost of financial distress is important in the real society, especially play a key role in judging the optimal mix form between the equity and debt. The financial distress means that the company do not have the enough ability to satisfy the requirement of the obligations in financial, it may cause the company bankruptcy. When any firm under the situation of the financial distress, the direct or indirect cost would be exposed at a certain degree. In this situation, the cost which have relationship with the lawyers, accountants, courts, experts and the bankruptcy cost should be included in the direct cost. On the other hand, the indirect cost contain the losses which

caused by company's bankruptcy except the cash cost during the process of the bankruptcy. In particular, the indirect cost can be show in other ways, the first one is that the employees loss, especially, the important core employees go to another company. The seconded one is that because of the bankruptcy, the store products cannot sale, so the sale volumes must be affecting (Megginson, 1977).

In the financial distress theory, the increasing of the probability of financial distress regard as the increasing of debt, although the increasing of the profit of the debt tax shields also regard as the increasing of debt. In this situation, the company should keep balance between the bankruptcy risk and tax shield profit. The best capital structure will make the all capital cost become minimum, and then make the company's performance and company's value become maximum (Baxter, 1967).

3. Methodology

3. 1 Data

In this paper, most of the data are secondary data which collected from the secondary sources. The all listed companies which used in the paper were found in the Shanghai (SHSE) and Shenzhen (SZSE) Stock Exchange. The all data are collected from the China Securities Regulatory Commission (CRSC), Shanghai Stock Exchange (SHSE), Shenzhen Stock Exchange (SZSE), Guotaian CSMAR Database. Major Index, Securities Issuing, Listed companies and Annual Reports (balance sheet, profit and loss and the statement of the cash flow) can be found in these systems.

In China Securities Regulatory Commission (CRSC), all Chinese listed companies can be found. The data information can be downloaded from its website. This information is all official published for everyone. The data have high quality. But the information have a limitation which is not included the latest information sometimes.

Shanghai Stock Exchange (SHSE) is also used in this study. It is another source to collect the data. It offers the companies' information which is listed on the Shanghai Stock Exchange. The financial information can be found and downloaded from its website.

Shenzhen Stock Exchange (SZSE) is almost the same as the Shanghai Stock Exchange (SHSE), except the listed companies is different. The financial information also can be found and downloaded from its website. The data from the two stock exchange are both without the quality problem.

Guotaian CSMAR Database is a system which set up by Guotaian Company. This database offers the information about the Chinese security, futures, foreign exchange, macroscopic view and industries (only in China). It is produced base on CRSP and COMPUSTAT. Now there are more than 500 universities and financial institutions use the data from the Guotaian CSMAR Database in the study of the Chinese security and economic. The information can be found and downloaded from its website.

The all data from these systems are without the quality problems, there is an third-party institution would be audited the all data. These data are correct and public.

3. 2 Sample selection

The samples for this paper consist of 100 non-financial listed Chinese companies in the Shanghai (SHSE) and Shenzhen (SZSE) Stock Exchange from 2008 to 2010. The selection criteria as follow:

The companies must not belong to the financial services sectors, for example the banks, the companies of insurance and the investment trusts), because the financial sector have a special capital structure and operational characteristics. There are big different between the financial sector and non-financial sector (Rajan & Zingakes, 1995).

The companies must belong to the A share companies in the Shanghai (SHSE) and Shenzhen (SZSE) Stock Exchange.

The companies must not belong to the Special Treatment (ST) listed companies and Particular Transfer (PT) listed companies. They have abnormal data which would affect the whole data analysis.

The companies must fulfill to offer a continuous and complete financial statement from 2008 to 2010. This is the key criteria. The continuous and complete financial statement at the same period can make sure these companies under the same financial environment. This criterion can make the compare under a fair condition.

The companies must not belong to the industry which has huge different in innate resource, for example, the agriculture, forestry and fishing industries. Moreover, the companies must not belong to the industry which has huge different affected by the policies factors, for instants, the public utilities.

Under these criteria, 100 listed companies are chose form the Shanghai (SHSE) and Shenzhen (SZSE) Stock Exchange.

3. 3 Research Approach

This paper is used the secondary data to analyze. In this study, the commonly software like E-views and SPSS would be used. E-views and SPSS are good for the panel data analysis, corss-sectional and time series. In this paper, this software would be used to test the relationship under the panel data analysis.

3. 4 Research models and the description of the variables

There are two independent regression model showed in this paper. The first one is the model for studying the variables whether affect the capital structure. The variables are Firm Size, Growth Opportunity, Tangibility, liquidity, Profitability. The second one is the model for studying the variable whether affect the corporate performance. The variables are Firm Size, Growth Opportunity, Tangibility, liquidity, capital structure. Because there are two regression models, there are two groups hypotheses showed in the study.

3. 4. 1 Determinants of the capital structure (brief)

In this paper, five variables are chose to analyze the relationship with the capital structure. They are Firm Size, Growth Opportunity, Tangibility, liquidity, Profitability.

Firm Size

According to Zeitun (2007) state that the measures of the firm size which is the natural logarithm of total asset of the companies.

The equation is as follow:

$$\text{Size} = \ln \text{TAit}$$

The TA means that the total asset of the company. TAit means the total asset of the company i at year t.

Growth Opportunity

The measures of the firm are measured by the growth of sales or revenue.

Revit means the total revenue of the company i at year t.

The equation is as follow:

$$\text{Growth it} = (\text{Revit}) - (\text{Revit-1})$$

$$\text{Revit-1}$$

Tangibility

Rajan (1995) states that the tangibility measured by the ratio of total fixed asset to total asset. FAit means the total fixed asset of the company i at year t and TAit means the total asset at the same company i at year t.

The equation is as follow:

$$\text{TANGit} = \text{FAit}$$

$$\text{TAit}$$

Liquidity

The measure of the firm's liquidity by the Total Current Assets divided by Total Current Liabilities. TCA_{it} is the total current asset for firm i at year t and TCL_{it} is the total current liability of the same firm i at year t .

The equation is as follow:

$$\text{CurRtio} = \frac{TCA_{it}}{TCL_{it}}$$

TCL_{it}

Profitability

The measure of the firm's profitability by the Net Income divided by Total Revenue. NI_{it} is the net income for firm i at year t and Rev_{it} is the total revenue of the same firm i at year t .

The equation is as follow:

$$\text{NETRO}_{it} = \frac{NI_{it}}{Rev_{it}}$$

Rev_{it}

3. 4. 2 The Capital Structure

In this paper, two variables are chose stand for the capital structure in the analysis of the relationship with the determinants and corporate performance. They are Total Debt Ratio, Long Term Debt Ratio.

Total Debt Ratio

This is measure as total debt divided by total. TDit is the total debt for company i at year t and TAit is the total asset for the same firm i at year t.

The equation is as follow:

$$\frac{TD_{it}}{TA_{it}} = \text{Total Debt Ratio}$$

TAit

Long Term Debt Ratio

This is measure as Long term debt divided by total. LTDit is the total debt of company i at year t and TAit is the total asset for the same company i at year t.

The equation is as follow:

$$\frac{LTD_{it}}{TA_{it}} = \text{Long Term Debt Ratio}$$

TAit

3. 5 Corporate Performance

In this paper, three variables are chose stand for the corporate performance in the analysis of the relationship with the determinants and corporate performance. They are ROA, ROE and ROI.

ROA

The measure of the firm's ROA (return on asset) by the Net Income divided by Total asset. NIit is the net income for firm i at year t and TAit is the total asset for the same company i at year t.

The equation is as follow: NI_{it}

TA_{it}

ROI

The measure of the firm's ROI (return on investment) by profit before interest and taxation divided by total assets minus current liabilities. $PBIT_{it}$ is profit before interest and taxation for firm i at year t and TA_{it} is the total asset for the same company i at year t . CL_{it} is the current liabilities for the same company i at year t .

The equation is as follow:

$$ROI = \frac{PBIT_{it} - CL_{it}}{TA_{it}}$$

TA_{it}

ROE

The measure of the firm's ROE (return on equity) by net income available for shareholders divided by shareholders' equity. NIS_{it} is net income available for shareholders for firm i at year t and SE_{it} is the shareholders' equity for the same company i at year t .

The equation is as follow:

$$ROE = \frac{NIS_{it}}{SE_{it}}$$

SE_{it}

4. Hypotheses(brief hypotheses)

4. 1 Hypotheses for the determines of the capital structure

4. 1. 1 Firm Size:

In the agency theory and trading-off theory, it is said that the firm size has a relationship with the level of debt. Firm size is a very important key factor should be considered in the choice of the firm's capital structure. In the trading-off theory, the cost of the bankruptcy is constant, so the rate of the bankruptcy cost in the firm's value will decrease with the increasing of the firm's size, this led the financial leverage rise.

Moreover, in the agency theory (Jensen, 1986), it said that the bigger the company is, the more transparency the company has. It will cause that the more information will be given to the creditor, and then the cost which caused by the signaling and information asymmetry will be decrease. There are the reasons why bigger company has higher ratio than the small company. It is also found that the bigger firms prefer the long-term debt than the short-term debt, and the smaller firms prefer the short-term debt than the long-term debt. Because that the ownership of the bigger company is more widespread, the benefit to choose the long-term debt for the bigger company is having better control over the managers and having the power to bargain with the creditors (Marsh, 1982). On the other hand, bigger companies are usually more diversified than the small companies, these companies always take the vertical integration management strategy, they have more risk resistance capacity, they have less possible to go

bankruptcy, and so the larger companies are easier to take the debt finance compare to the small companies. So these above arguments indicate that firm's size have a positive relationship with the debt level.

But in the peaking-order theory, they think that if the firm's size is bigger, then it is easier to have fund procurement inside the company, having the inside finance, so it led that the bigger company prefer to choose the equity finance than the debt finance.

According to the above theory, there are different discussions given by the capital structure theories about the relationship between the firm size and the debt. So this paper assumes there is a positive relationship between firm size and debt following this hypothesis:

H1-1: There is a positive relation between firm size and debt.

4. 1. 2 Growth Opportunity

Beside the firm size, it is said that there is another factor can affect the capital structure. It is the growth opportunity. The companies with high growth opportunity have more flexibility in operating, moreover, the companies with high growth opportunity usually are belong to the new industry, and these companies' assets have high plasticity.

There are some arguments to show that growth opportunity has a negative effect to the debt level. For example, the one is the trading-off theory, the companies with high growth opportunity would have less debt ratio, because the growth opportunity is regard as a intangible asset to these companies, it

is difficult to be a collateralized assets, it leads that the companies with more tangible asset would like to borrow more than the companies with high growth opportunity. The other argument is show in the agency theory (Myer, 1977), it is said that if the companies have the high growth opportunity, then it caused the companies have the lower debt levels, because that if the companies have the high debt level, then the debt holders have opportunity to restrict the companies' investment plan to not investment some valuable programs and expropriate the money from the shareholders.

However, there are some arguments to show that growth opportunity has a positive effect to the debt level. The first one is show in the signaling theory, because if the past investment history can be regard as a good signaling to the companies, then this good signaling can take the good respond in the performance, then it can let the companies with the high growth opportunity have ability to continue to use the more debt due to the dead weight cost caused by the debt. But the companies with less growth opportunity may not be able to use more debt, then because of the high cost caused by the debt, these companies may decrease the debt level. Although the agency theory shows the negative relationship between the growth opportunity and the debt level, it also shows a potential positive relationship between these two. The agency theory assumes that if the company has the high growth opportunity, then it may need more debt. Due to that the growth opportunity can help the managers to control the number of the necessary resources to increase their power in the company. So at this time, the function of the debt in here is to restrict the opportunistic action of the managers.

According to the above theory, there are different discussions given by the capital structure theories about the relationship between the growth opportunity and the debt. So this paper assumes there is a positive relationship between growth opportunity and debt following this hypothesis:

HI-2: There is a positive relation between growth opportunity and debt.

4. 1. 3 Asset's tangibility

HI-3: There is a positive relation between assets' tangibility and debt.

4. 1. 3 Liquidity

Liquidity means that the ability to a company to reach the obligation of short term. It is equal to the ratio of the current assets divide current liability.

Capital structure may be affected by the liquidity. There may be a positive relationship between the liquidity and the debt, because that if the companies have the high liquidity, then they may need the high debt to help them to satisfy their short-term obligation. However, a negative relationship between the liquidity and the debt shows in the peaking-order theory, according to the Prowse (1990), if the companies have the high liquidity, then they have possible to change their finance way which is choosing the their asset to regard as their internal financing source, they may give up the past finance way which is that financing by issue the debt. This reason may indicate that the companies with high liquidity may have less debt.

Furthermore, this negative relationship also show in the agency theory, the liquidity of the asset of the companies can be regarded as the extent of the

asset which can be controlled by the shareholders when expense should be cost by the debt holders.

According to the above theory, there are different discussions given by the capital structure theories about the relationship between the liquidity and the debt. So this paper assumes there is a negative relationship between liquidity and debt following this hypothesis:

HI-4: There is a negative relation between liquidity and debt.

4. 1. 4 Profitability

According to the Modigliani & Miller (1958), profitability can be a signaling to show the shareholder or creditors the company's future profit. And then their much research can show that there is a relationship between the profitability and debt.

A positive relationship between the profitability and the debt showed in the agency theory. In the agency theory, it said that because that if the external equity is increase, then the ownership may be change, so in order to not let this situation happen, the companies with the high profitability will control the external equity. On the other side, the shareholders who own the control right would like to increase the debt level to make sure the managers in the company to pay their attention on the profit instead of expanding their company or be the NO. 1 in the industry.

HI-5: There is a negative relation between profitability and debt.

4. 2 Hypotheses for the relationship between the determines of the capital structure and the firm performance

H2-1: There is a positive relation between firm size and firm performance.

H2-2: There is a positive relation between growth opportunity and firm performance.

H2-3: There is a positive relation between assets' tangibility and firm performance.

H2-4: There is a positive relation between liquidity and firm performance.

H2-5: There is a positive relation between capital structure and firm performance.

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