The Impact of Capital Structure Determinant on Investment Opportunity: Evidences from Manufacturing Companies in ASEAN Countries

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Abstract: The purpose of this research is to obtain the result that determines the capital structure that consists of: firm size, financial risks, profitability, and debt policy on investments opportunity in five ASEAN countries: Indonesia, Malaysia, Singapore, Thailand, and Philippines. The subject of this research is the manufacturing companies that are listed on the stock exchange market between the year of 2011 to the year of 2016. Data analysis method that is used in this research is Simultaneous Regression and panel. The result of this research proved that firm size had a positive and significant influence on Investment Opportunity in Indonesia, Malaysia and Singapore but not significant in Thailand and Philippines. The financial risk had no influence on Investment Opportunity in five ASEAN countries. Profitability had a positive and significance influence on Investment Opportunity in Singapore, Philippines, and Thailand. The debt policy had negative and significance influence in Indonesia, Thailand, and Philippines. The currency rate plays a significant role for Investment Opportunity in Indonesia, Malaysia, and Singapore. Altogether, the capital structure had significant influence on Investment Opportunity. In Singapore, it gave no significance but instead had significant influence in the other four ASEAN countries.

1 INTRODUCTION

1.1 Research Background

Investment is a stimulus economic growth for every country. The more amount of investments means a greater chance for an economic growth as it also increases the prosperity of the people. The foreign direct investment inflow of ASEAN countries are counted as high. This proved that South East Asia became a hotbed of the economic growth of the world. The only matter becomes a concern is that the spread of its investments is not as equal as every ASEAN country received. Singapore takes on majority of receiving 50% of foreign investments, while Indonesia receiving 15%, Thailand 11%, and Malaysia 10% (ASEAN investment report 2007).

ASEAN Economic Community is the biggest integration that exists among developing countries. AEC takes the role as an integrated economic power that empowers ASEAN countries globally.

The size of the firm itself means that the small or large the company will be seen on its amount of equity or the total active results of the company itself (Subekti, 2001). Based on Riyanto (2001), a large scale companies usually has a set of investment opportunity and are more likely to be trusted by investors compared to smaller companies. Trusted by the investors, a large company would gain easier access to loan or fundings for expansion as well as having its own expansion policy.

Financial risks are the large amount of spread between the expected return and the actual return. The bigger spread means more risk will be taken. If the risk determines as the amount that could deviate from the expected value, the increased level of investment risks will determine the decrease in the IOS. This is due to the increase in risk that means the increase in the rate of return deviation that will cause the decreased chances of investment based on the price proxy (Subchand and Sudarman, 2010).

The previous profitability rate of a company will determine or play a crucial role on the company’s...
capital structure. High rate of profitability will give a good signal of capital growth in the future. The result of Subchan and Sudarman (2010) research states that companies with high profitability rate had a better Investment Opportunities compared to other companies with low profitability rate.

Debt policy had a relation with capital structure in which the debts are part of capital structure. Composition of a company is marked as risky if it possesses a large amount of debts on the capital structure. But if the debt could earn a profit, then those debts will increase the value of the firm itself (Hidayat, 2013). The usage of debts will determine the price of the company share. A company with a high debt rate will earn high Earning Per Share (EPS) which will increase the chance of investments. Based on Larry Lang et al., (2006) and Ferdinand A Gul (2000), a debt that is proxied using DER is found to have a negative and significant DER against the investment policy.

IOS (IOS) is a chance of future investments that determines the active growth of the company or project that has a positive net present values so that IOS had an important role for a company due to the investment decision that combines the asset in place and the future available investment options in which the IOS will influence the company value (Pagalung, 2002).

The capital structure of the company has a strong connectivity in every factor that forms the Capital Structure. Voulgaris (2002) stated that Capital Structure Determinant is a company’s characteristic that consists of the company measurement, chances of growth, stock turnover, profitability, tangibility, and liquidity. In this research, the variable of capital structure that is used by the writer is the firm size, financial risk, profitability, and Debt Equity Ratio (DER). The purpose of this research is to test the influence of certain factors of capital structure that will affect the Investment Opportunities. In specific, the purpose of this study is to answer the question of this research: How massive is the effect of company capital structure that consists of the firm size, business risk, profitability, and debt policy on the investment opportunity of manufacturing companies in five ASEAN countries?

2 LITERATURE STUDY, CONCEPTUAL FRAMEWORK, AND HYPOTHESIS

2.1 Literature Study

2.1.1 Investment Opportunity Set (IOS)

Myers (1977) stated that company is a mix between active asset in a place and future investment options. This future investment options are later known as IOS (IOS).

Investment option is a chance for a company to expand and grow, but often many companies didn’t have a chance to conduct such investment opportunity. The value of Investment Opportunity is the current marks that consist of investment alternatives for a company to invest in the future. Gaver and Gaver (1993) stated that a future investment option is not only based on a company projects that is supported by research activities and its development, but also from the company’s ability to exploit the chances of profit compared to other companies in their product segments. Smith and Watts (1992) stated that an IOS is a result of choices for future investments. This set of Investment Opportunities shows the company’s abilities to make a profit from the growth prospects.

This research will be using a market value to book value of equity (MVE/BVE) as the IOS proxy. Systematically, market value to book value of equity (MVE/BVE) formula is stated as follows:

\[
\text{MVE/BE} = \frac{Outstanding\ shares \times \text{Market Price per Share}}{\text{Total Equity}}
\]

2.1.2 Firm Size

A large scale company had an easier access to loan due to its large amount of assets and the higher trust it earns from the bank that makes it easier for the company to create investment. Therefore, in this research, investment is a variable on the scale of the company itself. Titman (1988), Homaiifar (1994), and Gilson (1995) measured the firm size variable with the logarithm of total assets. Burgman (2002) and Moh’d et al., (2005) measure the variable of the firm size based on the sales logarithms.

Peasnell, Pope, and Young (2008) point that there is a negative relationship between the firm size and profit management in England. Thus, it is concluded that the company manager that leads a larger company has a smaller chances in manipulating the
profits compared to that from a small scale company. Albrecth and Richardson (1990) and Lee and Choi (2002) discovered that a large scale company had a direction to stabilize its profit compared to other smaller companies due to the large company is considered more critical by the foreign investments. On the other hand, if the profit management is proven to be efficient, the investment rate will be bigger as well. The size of the firm also symbolizes the prosperity level for the company (Fraser, 2006). The variable measured using natural log of sales (moh’d Perry and Rimbey, 2005).

\[ \text{ Risk} = \frac{\text{Standard Deviation of Ebit}}{\text{Total Assets}} \]

2.1.4 Profitability

Profitability shows the company’s ability to make a profit resulted from the capital or aktivas that is utilized on a given time. The fulfilsment of the funds on the condusive macro economic conditions are best fulfilled through debt due to the tax saving.

Higher profitability mean higher Investment Opportunities (Baskin, 1983 on Saputro and Hindasah, 2007). Company with bigger funds had bigger management that could take a decision in investing its resources for a profitable results that would increase the company value. Based on the research by Ahmed Riahi and Belkaoui (2001) on 100 manufacturing companies in America from the year 1987 to 1992, it is found that profitability had a significant positive impact against the investment policy.

In this research, profitability is measured using the return on asset (ROA), which means an ability of the total asset invested on the whole active to earn a profit counted as a nettor profit after tax cuts of the total aktiva. The ROA ratio could be define as a formula of:

\[ \text{ ROA} = \frac{\text{EAT}}{\text{total asset}} \]

2.1.5 Debt Policy

Debt policy is a company policy to fund all of the operations using the company loans. This financial loans are intended to fund all the companies activities either operation process or investments. The combination of loan and equity on the company will be counted as the main topic of capital structure decision. An efficient capital would press the cost of capital that will increase the economic nettoreturn and increase the Value of the firm.

In its measurement of the debt policy, this research will be proxied by DER (Debt Equity Ratio). Debt to equity ratio is a part of ratio leverage or a comparison of the total debts (short, middle or long terms) against the company’s capital. Debt to Equity Ratio (DER) shows the company’s ability to fulfill its obligation that points out at the personal apital to pay its debts.

Lang et al., (2006) state that there is a negative relation between the leverage and the company growth that possesses a limited growth chances. Gull and Jaggi (1999) found that a relation between the free cash flow and the debt policy shows differences between the company that has a low IOS with the company that possesses high IOS. Smith a n d Watts (1992) by empiric found that there is a proof that a company might have a bigger chance to possess a low debt to equity ratio in terms of capital structure due to the equity financing that decreases the agency problems that associate with the company’s free cash flow. Based on this matter, it is stated that the influences of the IOS against the debt policy is negative. Debt Equity Ratio based on Sukirni (2012) ratios are measured on formula:

\[ \text{DER} = \frac{\text{Total Liabilities}}{\text{Total Equity}} \]

2.2 Conceptual Framework

The construct of this research is that the firm size, the
financial risks, profitability, and debt policy had a chance to affect the Investment Opportunity that is measured by the IOS. It could be seen on this body construction graph:

![Figure 1: The Effects of Firm Size, Financial risks, Profitability, and Debt Ratio Against the Investment Opportunity.](image)

2.3 Hypothesis

**H1**: There is an effect in the firm size againsts the investment opportunity set.

**H2**: There is an effect of financial risks againsts the investment opportunity set.

**H3**: There is a profitability effect againsts the investment opportunity set.

**H4**: There is an effect between the Debt policy and the investment opportunity set.

3 RESEARCH METHODOLOGY

3.1 The Method of Data Collection

The data used for this research consist of secondary data in a form of cross-section data panel and time series of ASEAN-5 countries. To earn the variable numbers from this research, a yearly report of each country based on 35 high capital manufacturied companies was utilized. This research will observe the financial report of the companies that are recorded in the Stock Exchange of ASEAN-5 countries: Indonesia, Malaysia, Singapore, Thailand, and Phillipines from the year 2011 – 2016.

3.2 Design Analysis and Testing Hypothesis

The regression assumption test will be conducted using regression model panel and the simultan that had passed the general terms as stated:

On the regression data panel there will be 3 types of approach that consist of pooled least square, fixed effect, and random effect. Pooled Least Square approach is a model that is obtained through a combination of retrieving all cross section data and time series data. This model will be estimated using Ordinary Least Square as below:

\[ y_{it} = \alpha + \beta X_{it} + \varepsilon_{it} \]  

where,

- \( i \) determines unit cross-section \((i = 1, \ldots, n)\)
- \( t \) determines the time range \((t = 1, \ldots, t)\).

3.3 Research Results

The outcomes of this research will analyze the difference of the effect of the firm size, the financial risks, the profitability, and the debt policy against the IOS (IOS) of each of the ASEAN-5 Countries.

<table>
<thead>
<tr>
<th>Variable</th>
<th>coefficient</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Firm size</td>
<td>-0.041990</td>
<td>0.0098***</td>
</tr>
<tr>
<td>2. Risk</td>
<td>0.010723</td>
<td>0.7124</td>
</tr>
<tr>
<td>3. ROA</td>
<td>0.006163</td>
<td>0.7187</td>
</tr>
<tr>
<td>4. DER</td>
<td>-0.021115</td>
<td>0.0255**</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.016782**</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Firm size</td>
<td>0.140813</td>
<td>0.0128**</td>
</tr>
<tr>
<td>2. Risk</td>
<td>0.000135</td>
<td>0.5451</td>
</tr>
<tr>
<td>3. DPR</td>
<td>-2.24E-05</td>
<td>0.4774</td>
</tr>
<tr>
<td>4. DER</td>
<td>-0.100258</td>
<td>0.0747*</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000***</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Firm size</td>
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<td>0.9807</td>
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<tr>
<td>2. Risk</td>
<td>-5.57E-05</td>
<td>0.1280</td>
</tr>
<tr>
<td>3. DPR</td>
<td>-4.88E-06</td>
<td>0.4774</td>
</tr>
<tr>
<td>4. DER</td>
<td>-0.000650</td>
<td>0.0496**</td>
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<tr>
<td>Prob(F-statistic)</td>
<td>0.846553</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Firm size</td>
<td>0.050301</td>
<td>0.5622</td>
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<tr>
<td>2. Risk</td>
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<tr>
<td>3. DPR</td>
<td>-1.60E-06</td>
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<tr>
<td>4. DER</td>
<td>-0.137351</td>
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<tr>
<td>Prob(F-statistic)</td>
<td>0.000072***</td>
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</tr>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Firm size</td>
<td>-0.159804</td>
<td>0.0450**</td>
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<tr>
<td>2. Risk</td>
<td>0.000501</td>
<td>0.4517</td>
</tr>
<tr>
<td>3. DPR</td>
<td>0.000536</td>
<td>0.0394**</td>
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<tr>
<td>4. DER</td>
<td>-0.923347</td>
<td>0.0001***</td>
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<tr>
<td>Prob(F-statistic)</td>
<td>0.000001***</td>
<td></td>
</tr>
</tbody>
</table>

Note: *** Significant at 1%, ** significant at 5%, * significant at 10%.

From the table above, it is stated that:
3.3.1 Indonesia

The firm size shows positive effects on the Investment Opportunity. This results show that the larger the firm size means the higher the IOS is. The measurement of the large company defines as a company that possesses large assets that could be used for investments, and easier access to compete and dominate the market.

All Najjar and Riahi-Belkaoui (2001) also empowers that the firm size had a positive impact on IOS. They state and argue that a small scale company is potential to limitations or difficulties in restricting their own assets, while the bigger companies dominate the market and their industries.

Research results of Dhanaraj and Beanish (2003) also state that a large company had bigger quantum resources of the availability of managerial resources.

Risks do not affect the IOS. Thus, the business risk cannot be used to determine the investment chances. This proves that this research shares a common ground with Cassar and Holmes (2003), even though its research found that a business risk showed no true effect on leverage, but its studies showed that consistency of efficient of business risks against the IOS was proven to be negative. This proved that a company with higher business risks tends to have a low IOS. When it possesses higher business risk with a higher debt usage, it will result in complication for a company to pay its debts. Brigham et al., (2001) put his opinion based by Modigliani and Miller (1959) where an addition in debts where the variable return condition is high will result in bankruptcy. That causes a high capital but low value that will result in a failed investments.

Profitabilities show a positive and unsignificant result against the IOS. This proves that profitabilities play an undominant role in determining the IOS. The higher profitabilities allows the company to exist in selecting their industries. The profitability rates represent the results that show the bigger profits the business had for their companies (Keown et al., 2002). Next, the higher the company’s profitabilities it had, the bigger chances for its profit to be defended for investment.

Debt equity ratio shows a negative effect on the IOS. This shows that the bigger the DER leads to lower IOS. The companies with a higher financial leverage will possess a risk of high default due to their inability to pay the interest and the debts given (Angeline, 2016). The same thing applies to the payment of interests and the debts that may increase the potential loss of the investment due to the higher rate interests and payment over profits and investments.

The usage of company structural leverage gave a barrier in investments due to its barriers and debt regulations (negative border). The loan makers define the deadlines of the payment and ensure the payment will commence with interests. Francis et al., (2013) shows that a financial leverage indicates a risk and a higher leverage that cause an external expenses. And thus, the high leverage company will possess a higher financial risks compared to a low leverage company and they tend to reduce the business risk through a lower IOS.

Therefore, leverage had a negative effect against IOS (Gaver and Gaver, 1993; Gul, 1999; Al Najjar and Riahi-Belkaoui, 2001).

3.3.2 Malaysia

The firm size shows a positive influence on the IOS. The bigger the firm size usually gave a larger asset that could be used for investment that could lead to an easier chance for a company to compete and dominate the market based on Gaver and Gaver (1993). The more prosperous and larger scale company is, the more active the company to increase its investment values through various forms like differentiating its products to produce a barrier, economic scale, and copyrights (Chung and Charoenwong 2001). Bolino and Blood good et al. (2002) also stated that a large scale company tends to employ more skilled and professional manager compared to smaller companies. Therefore, a large company possesses a large capacity to dung growths compared to small company.

Similar to Indonesia, the risk had no effects on the IOS, and therefore, the risk couldn’t be used to determine the IOS. In a situation that the way of the business risks against the IOS is proven to be negative, this means that the company that possesses a high business risk and the higher debt usage will complicate the company to pay its debts.

Profitability does not affect the IOS. This proves that profitabilities are not dominant in determining the IOS. Debt equity ratio had a negative and insignificant result on the IOS. In addition, larger DER means a decreased in the IOS. The negative value proved that this research is based on Francis et al., (2013) statement that says financial leverage indicates the high leverage and high risk in the company, which cost and access external fundings. Therefore, higher leverage of a company means higher financial risk. It is compared to the low leverage that causes a low IOS. Thus, the leverage points on a negative value on the IOS (Gaver and
3.3.3 Singapore

The firm size had a positive remark on IOS. The bigger the firm size means the bigger asset they could use for investments. In addition, it will be easier for a company to compete and dominate the market based on Gaver and Gaver (1993). A large elite company had an active role in increasing the investments in using any methods, such as product differentiation to create a barrier, economic scales, and copyrights (Chung and Charoenwong, 2001).

Risk had no effect in determining the IOS, and therefore, risk factor could not be used to determine the IOS in Singapore. The bigger the business risk it had, and the higher debt it gets will complicate the company in repaying its debts.

Profitability had a positive effect on the IOS. This proved that a dominant profitability will determine the IOS in Singapore. By having higher profitabilities, the IOS will be high as well. The larger the company profitability it had, the bigger its chances for profit for the companies’ investment. Thus, the investment chance is all based on the company profitabilities by Boedie et al., (2009) and (Riahi – Belakoui, 2002).

The Debt Equity Ratio had shown a negative remark and had no effect against the IOS. This proved that DER isn’t dominant in determine the IOS in Singapore. This negative remark prove the researches conducted by Smith and Watts (1992), Gaver and Gaver (1993), and Skinner (1993) and Gul (1999), which state that a company with a high leverage will have a chance of giving a low investment. This will be resulting in an avoidance of bankruptcy cost that is created from the high debt amounts that are resulted in a decreased chance of investments in Singapore.

3.3.4 Thailand

Unsignificant size of the firm against the IOS had shown that the measurement could not be used to determine the IOS in Thailand.

Risk factors do not affect the IOS in Thailand. As the trade off implicates the theory from Brigham et al., (1999), which states that a company with a high business risk is better to use a lower debt compared to other companies with a low business risk.

Profitabilities had affect and shown a positive rates on the IOS, which shows that profitability is dominant in determining the IOS in Thailand.

3.3.5 Philippines

Measurement had no effect on an IOS. This proved that a measurement could not be used to determine the investment chance in the Philippines. A negative mark showed that Philippines’ investments are against the theory of Gaver and Gaver (2003), All Najjar and Riahi – Belakoui (2001), Dhanaraj and Bearnish (2003) and Bolino (2002), that state the bigger the size of the firm means a higher IOS.

The risk does not influence the IOS, and therefore, the risk does not determine the IOS in Philippines. Profitabilities have shown a positive determination with the chance of investments, which proves the profitability domains in determining the investment in Philippines.

4 CONCLUSION AND DISCUSSION

1. Debt Equity Ratio (DER) had a negative impact and significant against the Investment Opportunity on ASEAN-5 countries. This showed that the more DER = decreased in Investment Opportunity. This is because of the bigger the debts means more rates that are resulted in bankruptcy due to the debt payments + interests that are resulted in decreasing investment rates.

2. The risk did not have significant effects on the Investment Opportunity. This means that investments are not done through high risk companies due to its risk of bankruptcy.

3. Insignificant profitabilities of all ASEAN countries are not domain in determining the Investment Opportunity in each of these countries. These countries did not consider the profit based on the activeness of the Investment Opportunity.

4. The effects of the firm size on the Investment Opportunity for Indonesia, Malaysia and Singapore have resulted in negative connections. This proves that the bigger the size of the firm means the lower chances of investment it has.

REFERENCES


Economic Community’. Philippine Institute for Development Studies.
Saputro, Adi, akhmad, Hindasah, Lela, 2007, Analisis Pengaruh Kebijakan pendanaan, Deviden, dan Profitabilitas, terhadap Set Kesempatan Investasi


