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The Influence of Debt Financing on Firms’ Performance: A Study of Consumer Product Industry in Malaysia

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Abstract
This research investigates the influences of debt financing on firms’ performance in the consumer product industry in Malaysia. The firms’ performance is measured based on return on assets (ROA), while the independent variables examined were accounts payable (AP), short-term debt (STD), long-term debt (LTD), and firm size. The data for this research were collected from consumer product firms in Malaysia and listed by Bank Negara Malaysia. Fifteen years of data, from 2001 until 2015, were analyzed. The findings revealed a significant relationship between short term debt and long-term debt towards the performance of consumer product firms in Malaysia. However, an insignificant relationship was found between account payable and firm’s size towards the performance of consumer product firms in Malaysia. Nevertheless, other factors can be considered when measuring the performance of consumer product firms in Malaysia.

Keywords: Consumer Product, Return on Asset, Firm Performance, Debt Financing, Profitability

Introduction
Debt financing is very popular nowadays not only because of its tax benefits, but also because it can attract more investors as it presents a lower risk to debtors. As choosing the right capital structure is critical, firms have become very competitive and careful when choosing their capital structure in order to survive in the challenging market and attract more investors in order to expand or grow their business. In the consumer products industry, where everything moves rapidly, firms must have a clear and strategic capital structure strategy in order to remain nimble and competitive in the rapidly evolving technologies and economic uncertainty. Therefore, it is important to study the relationship between debt financing and firm performance among companies in the consumer products industry. Previous studies on debt financing have mostly focused on companies outside of Malaysia. Empirical studies on debt financing in Malaysia are scarce, but the general findings...
seem to indicate varied results on the relationship between debt financing and firm performance. For that reason, this study will focus on debt financing and firm performance among companies in the consumer products industry from 2001 to 2015. This research is motivated by two factors. First, there are inconsistencies in the previous findings about the relationship between debt financing and firm performance. New evidence needs to be brought forward to assist in providing a better understanding of the issue. Second, there is insufficient literature on debt financing and firm performance in Malaysia, specifically in the consumer products industry. In fact, this study is important as one factor contributing to the 1997 Asian financial crisis was the significant amount of external liabilities or debt (Moreno, 1998). The expected findings will be important for governments, firms, investors, industries, and researchers seeking to ensure sound financial management and increase firms’ performance and growth.

Many studies have discussed the importance of a company’s capital structure, which can be raised by issuing debt financing or equity financing. The amount of debt financing or equity financing has many different risks and return implications (Yazdanfar & Öhman, 2015). Therefore, it is extremely important for firms to make thorough and prudent decisions to establish the optimal capital structure in order to increase their performance and growth as well as maximize shareholders’ wealth.

Various theories can help guide firms in choosing their capital structure. However, the most popular theory discussed thus far is the Modigliani & Miller, (1958) theory that firms can benefit from tax-deductible debt financing, which makes it more appealing, subject to some assumptions. Although some researchers have criticized this theory, it is still widely discussed. Accordingly, as debt financing is tax deductible and there is less risk involved in taking out debt over equity, firms are more likely to pursue debt financing. Furthermore, payments of debt are required by law regardless of the firm’s performance, which can become a method to attract investors as their risk is then minimal. However, a firm that is overleveraged or taking on too much debt will face another problem because, in the event of liquidation, debt holders are senior to equity holders (Zaher, 2014). In such a case, the firm might be forced into bankruptcy, which unfortunately was the main factor leading to the world financial crisis between 2007 and 2009 as well as the 1997 Asian financial crisis (Moreno, 1998).

In addition, if the total amount repaid exceeds the initial sum, this would cause a disaster for the firm, especially smaller or newer firms. However, this does not mean debt financing is all bad as it can enable firms to grow more rapidly than might otherwise be possible while only leveraging a smaller sum. According to Yazdanfar and Öhman, (2015), in order to achieve profitability and increase firm value, reaching a satisfactory debt level is essential for any business, especially when a firm is facing a competitive environment. Although debt financing is cheaper and has tax benefits, it should not be used exclusively, but the extent to which debt financing should be used within a firm in order to achieve optimal firm performance has yet to be determined. A review of previous empirical literature shows a lack of agreement regarding the relationship between debt financing and firm performance. Therefore, the current study investigates the relationship between debt financing and firm performance among consumer product firms in Malaysian.

**Research Objectives**
The main objective of this research is to examine the relationship between debt financing and firm performance among consumer product firms in Malaysia. Specifically, it addresses the following objectives:

I. To examine the relationship between account payable (AP) and firm performance among consumer product firms in Malaysia

II. To examine the relationship between short-term debt (STD) financing and firm performance among consumer product firms in Malaysia

III. To examine the relationship between long-term debt (LTD) financing and firm performance among consumer product firms in Malaysia

IV. To examine the relationship between firm size and firm performance among consumer product firms in Malaysia

Research Hypotheses
To investigate the preceding objectives, the following hypotheses were formulated:

Hypothesis 1
H₁: There is a significant relationship between account payable and return on asset that affects the performance of consumer product firms in Malaysia.

Hypothesis 2
H₂: There is a significant relationship between short term debt financing and return on asset that affect the performance of consumer product firm in Malaysia.

Hypothesis 3
H₃: There is a significant relationship between long term debt financing and return on asset that affect the performance of consumer product firm in Malaysia.

Hypothesis 4
H₄: There is a significant relationship between firm size and return on asset that affect the performance of consumer product firm in Malaysia.

Literature Review
According to Zaher (2014), investors believe the balance sheet is the main tool for evaluating the financial health and risk of a firm. One important item on the balance sheet is the level of debt. Debt is a cheap source of funding for most companies and, moreover, the interest leveraged firms pay is tax deductible. This has become the main reason why debt financing is so tempting to most firms (Zaher, 2014).

However, debt has fixed interest and principal commitments, which can cause firms to suffocate and be unable to operate freely if the debt grows bigger and out of control. Furthermore, in a worst-case scenario, this may lead to defaulting on interest payments and financial distress or bankruptcy as the debt holder must be paid first (Zaher, 2014). Consequently, if the debt level is very high, surplus cash might also be needed to service the debt, thereby limiting the ability to pay dividends. The heavy use of debt has hammered many large firms over time.

As Salim and Yadav (2012) stated, the impact of capital structure on the value of the firm has been a puzzling issue. The tax-based theories introduced by Modigliani and Miller (1958)
emphasize the role of the tax advantage of debt financing and argue that the value of the firm will increase with more leverage. Modigliani and Miller (1958) suggested that, in a perfect capital market, strategies do not affect the value of the firm, although they later argued that firm value can be increased by changing the capital structure because of the tax advantage of debt. They further argued that, under very restrictive assumptions of perfect capital markets, investors’ homogenous expectations, a tax-free economy, and no transaction costs, the capital structure is irrelevant in determining firm value. However, these assumptions do not hold in the real world. The literature suggests that there is an optimal capital structure, but there is no specific methodology for ensuring that they achieve an optimal debt level. Yet financial theory does provide some help for understanding how the chosen financing mix affects the firm’s value, and more studies are needed to explore to what extent debt affects firm performance.

**Firm Performance**

Firm performance is significantly affected by various factors, and capital structure is among the significant factor. Numerous empirical studies have explored if there is any relationship (positive, negative, or none) between a firm’s performance and capital structure, but these studies have produced mixed results.

I. **Positive relationship**

Roden and Lewellen (1995), found a positive relationship between profitability and capital structure during their study of 48 American firms from 1981 to 1990. Meanwhile, Abor (2005) highlighted a positive relationship between capital structure and performance from 1998 to 2002 for firms in Ghana. Zaher (2014) also revealed that investors tend to penalize firms that have a high level of debt. Yet Simerly and Li (2000), who studied the effects of financial leverage on the performance of 700 large American companies in a variety of industry sectors from 1989 to 1993, suggested that—depending on whether a company is operating in a stable or dynamic business environment—the impact of financial leverage can be positive or negative.

II. **Negative relationship**

A study by Umar, Tanveer, Aslam, and Sajid (2012), found that debt or leverage negatively impacts the performance of firms. These authors also recommended that managers try to finance their projects with retained earnings and use leveraging as a last option so as not to use it excessively in their capital structure. Pratheepkanth (2011), also found a negative relationship between capital structure and financial performance for companies in Sri Lanka from 2005 to 2009.

**Return on Assets**

ROA is most widely used variable to measure firm’s profitability. Karaduman, et al (2010) also used ROA to measure profitability of companies. ROA is a good internal measuring ratio because it measures profit against the entire asset, a division used to make those earnings. A study by Uchenna, Mary, and Okelue (2012) who studied working capital management on firm profitability also used ROA to measure the beer brewery firms profitability. Similarly, ROA can also be used to measure a firm’s ability to generate returns relative to firms’ assets as per research done by Ahmed, Ahmed, and Kanwal (2018).

**Account Payable**
According to Ikechukwu and Nwakaego, 2015, one of the major sources of short-term financing is accounts payable. Suppliers whose invoices for goods or services that have been processed but not yet paid can be represented with accounts payable. If the firms did not manage their payables sufficiently, this may cause problems to the firm. Managing firm’s suppliers is just as important as managing the firm’s debtors because too much cash outflows might cause liquidity problem in the future (Anastesia, Ph, & Ikechukwu, 2016).

**Size of Firm**

Theoretically, firm’s size is expected to influence profitability positively. This is because, larger firms tend to have better abilities to use technologies and exploit the economies of scale compared to smaller firm (Majumdar & Chhibber, 1999). Bigger firm can also achieve better product diversification, stable sales and larger market shares (Yazdanfar & Ohman, 2015). According to Setiadharma & Machali, 2017, the firms size can be indicated by the total assets owned. A firm value can be affected by the firm size. It is easier to get internal or external source of funds for bigger firms. Firm’s size can also be measured by sales and number of employees.

**Research Methodology**

The data analysis was based from the Malaysian companies listed on Bursa Malaysia from the consumer product sector with the sample of 99 companies out of 131 listed, where data were extracted from the population for the period of 2001 until 2015. In this study, Return on Asset (ROA) will be used to identify the performance of the consumer product firms. Therefore, ROA will act as the dependent variable. Meanwhile, accounts payable, short term debt, long term debt and size of the firm will be used as the independent variable.

The empirical model applied in this study is according to the past research that is in line with the objective to examine the influence of debt on firm performance. The following model will be used to test the relationship between debt financing and firm performance. Hence, the empirical model to be examined in this study is expressed as follow:

$$\pi_{it} = \beta_0 + \beta_1 AP_{it} + \beta_2 STD_{it} + \beta_3 LTD_{it} + \beta_4 Size_{it} + \epsilon_{it}$$

Where,

- $\pi_{it}$ Profitability =ROA, defined as the firm’s book value of net profit after tax, divided by total asset, ROE, EPS
- $AP_{it}$ Accounts payable as percentage of total assets of firm i at time t
- $STD_{it}$ Short term debt as a percentage of total assets of firm i at time t
- $LTD_{it}$ Long term debt as a percentage of total assets of firm i at time t
- $Size_{it}$ Size of firm i at time t
- $\epsilon_{it}$ Error term

The dependent variable in the study to measure the firm performance would be measured by the return on asset (ROA), (Salim & Yadav, 2012) and it is calculated by computing the profit before taxation divided by total asset. The return on assets is an indicator of the management’s effectiveness in using the firm’s assets to generate earnings. The definition and proxy measurement for dependent and independent variables is summarized in Table 1.
Variables | Definition/ Proxy measurement
---|---
**Independent variables**
Accounts Payable (AP) | Accounts Payable indicates the firm’s liability to a creditor or supplier for goods or services carried on open account. The accounts payable will be expressed as percentage of total assets.
Short Term Debt (STD) | Illustrates the firm’s financial obligations that are expected to be paid off within a year.
\[
\text{Shorttermdebt} = \frac{\text{Shorttermdebt}}{\text{Totalassets}}
\]
Long Term Debt (LTD) | Long term debt represents the percentage of firm’s assets financed with long term debt.
\[
\text{Longtermdebt} = \frac{\text{Longtermdebt}}{\text{Totalassets}}
\]
Size | Firm size can be measured by book value of total assets. For this research, it is measured as the natural logarithm of firm’s book value of assets.
\[
\text{Firmsize} = \ln\text{TotalAssets}
\]
**Dependent variable**
Profitability of firm (\( \pi \)) | The return on assets is an indicator of management effectiveness since it measures the management’s capability of converting the firm’s assets into net earnings.
\[
\text{ROA} = \frac{\text{Profitbeforetaxation}}{\text{TotalAsset}}
\]

Table 1: Definition and proxy measurement for study variables

The primary step taken is to identify the list of consumer product firms listed in Bursa Malaysia to get the sample. Hence, simple random sampling was performed to get the sample from the listed firms. There are 131 consumer product firms listed in Bursa Malaysia. However, for the purpose of this study only 99 consumer product firms in Malaysia will be taken to determine the influence of debt financing on the firm’s financial performance. The data was taken for the period of fifteen years (2001 until 2015). The dependent variable
used to measure firm’s performance in this study is the Return on Asset (ROA), while the independent variables are Account Payable (AP), Short Term Debt (STD), Long Term Debt (LTD) and firm’s size. Next, descriptive statistics were carried out to evaluate the behavior of the study variables in term of the mean and standard deviation for the purpose of empirical analysis. Subsequently, test was also conducted to check the relationship between return on asset and the four independent variables which is accounts payable, short term debt, long term debt and firm’s size.

Findings and Discussion

Descriptive Statistics

The summary of descriptive statistics for the panel data of 99 consumer product firms in Malaysia are presented in Table 2. Table 2 shows the means, standard deviation, minimum and maximum values.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.0474</td>
<td>0.1769</td>
<td>-1.5955</td>
<td>5.2805</td>
</tr>
<tr>
<td>AP</td>
<td>0.0908</td>
<td>0.0927</td>
<td>0</td>
<td>0.9869</td>
</tr>
<tr>
<td>STD</td>
<td>0.6273</td>
<td>0.3318</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>LTD</td>
<td>0.0743</td>
<td>0.1040</td>
<td>0</td>
<td>0.6991</td>
</tr>
<tr>
<td>SIZE</td>
<td>5.5626</td>
<td>0.6626</td>
<td>4.3023</td>
<td>7.9495</td>
</tr>
</tbody>
</table>

Table 2: Summary of descriptive statistics for dependent and independent variables

Note: (1) ROA=Return on assets, AP=Account Payable, STD=Short Term Liability, LTD=Long Term Liability and Size.

The statistic indicates that the average mean of ROA is 0.0474 with a maximum of 5.2805. The average mean for account payable 0.0908, while average mean for short term debt (STD) is 0.6273. Long term debt (LTD) on the other hand has an average mean of 0.0743 and size of firm indicates the minimum mean of 5.5626. Next, the statistic for standard deviation for ROA shows the value of 0.1769 whereas standard deviation for account payable shows 0.0927. Additionally, the standard deviation for short term debt, long term debt and size of firm are 0.3318, 0.1040 and 0.6626 respectively.

Regression Analysis

Next, the summary of regression and coefficients analysis will be presented in table 3. First, the data was sorted according to the firms ROA from the highest to the lowest. The results of the analysis were presented in table 3 below:
### Table 3 Regression result of the influence of debt financing on firm performance on consumer product firm in Malaysia

<table>
<thead>
<tr>
<th></th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjusted R Square</strong></td>
<td>0.01739</td>
</tr>
<tr>
<td><strong>Coefficients</strong></td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>0.05207</td>
</tr>
<tr>
<td>STD</td>
<td>0.04643</td>
</tr>
<tr>
<td>LTD</td>
<td>0.13684</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.02906</td>
</tr>
<tr>
<td><strong>Standard Error</strong></td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>0.04971</td>
</tr>
<tr>
<td>STD</td>
<td>0.01606</td>
</tr>
<tr>
<td>LTD</td>
<td>0.05154</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.00732</td>
</tr>
<tr>
<td><strong>t Stat</strong></td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>-1.04762</td>
</tr>
<tr>
<td>STD</td>
<td>-2.89095</td>
</tr>
<tr>
<td>LTD</td>
<td>-2.65539</td>
</tr>
<tr>
<td>SIZE</td>
<td>3.97168</td>
</tr>
<tr>
<td><strong>P-value</strong></td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>0.29498</td>
</tr>
<tr>
<td>STD</td>
<td>0.00389</td>
</tr>
<tr>
<td>LTD</td>
<td>0.00800</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.47964</td>
</tr>
</tbody>
</table>

Note: (2) ROA=Return on assets, AP=Account Payable, STD=Short Term Liability, LTD=Long Term Liability and Size.

The analysis for the model shows the relationship between independent variable which were account payable, short term liability, long term liability and firm size; and the dependent variable, return on asset (ROA). All the independent variables show positive relationship with ROA with positive correlation coefficient results.

**Hypothesis 1**
To determine relationship between account payable and return on asset that affects the performance of consumer product firms in Malaysia. Based on table 3 result, the coefficient was positive which is 0.05207. The t-value is -1.04762 while the p-value is 0.29498. Since the p-value=0.29498>0.05, this shows there is no significant effect of account payable on consumer product firms in Malaysia. Hence, we reject alternate hypotheses and conclude that account payable have positive non-significant effect on firm’s profitability.

**Hypothesis 2**
To determine relationship between short term debt financing and return on asset that affects the performance of consumer product firms in Malaysia. The short-term debt had...
affected the ROA positively and significantly. This can be proved with the coefficient being 0.04643 and the p-value= 0.00389<0.05. This shows that short term debt has positive and significant relationship with profitability of consumer product firms in Malaysia.

Hypothesis 3
To determine relationship between long term debt financing and return on asset that affects the performance of consumer product firms in Malaysia. Based on the result in table 3, there is a positive relationship between long term debt and firm performance of consumer product firms in Malaysia. The p-value also shows that 0.008 which is less than 0.05 which displays that there is a significant effect of long-term debt towards the firm’s performance. Thus, there is a positive and significant relationship between long-term debt financing on consumer product firm’s performance in Malaysia.

Hypothesis 4
To determine the relationship between firm size and return on assets that affects the performance of consumer product firms in Malaysia. The result in table 3 shows a positive relationship with a coefficient of 0.02906. However, the p-value is 0.47964 which is more than 0.05 significant level. Consequently, there is a positive non-significant relationship between firm size and firm performance for consumer product firms in Malaysia.

Conclusion and Recommendations
This study investigates the influence of debt financing on firm performance of consumer product industry in Malaysia. For the purpose of this study, 99 firms were chosen from the consumer product firms listed in Bursa Malaysia for the period of fifteen years which is from 2001 until 2015. To measure the firm performance, Return on Asset (ROA) was used as the dependent variable while the independent variables were Account Payable (AP), Short term debt (STD), Long Term Debt (LTD) and firm Size.

From this study, the following results and conclusions were reached. First, there is a positive but non-significant relationship between account payable and firm performance for consumer product firms in Malaysia. This result suggest that account payable does plays a role in firm’s performance in consumer product firms, but it does not give a significant effect on its profitability.

Next, there is a positive and significant relationship between short term debt financing and firm performance. The same result was showed for long term debt financing towards the firm performance. This result shows that having too much debt does affect the performance of firms in the consumer product industry.

Finally, there is a positive but non-significant relationship between firm size and firm performance for consumer product firms in Malaysia. This shows that, it does not matter whether the firm size is big or small, it will not significantly affect the firm’s performance of a consumer product firms in Malaysia.

As a conclusion, the result of this research can be useful for the consumer product firms in Malaysia to make better decision on financing their capital and for investors to make a better investment decision. Other than that, the result can also be useful for the future researcher as their reference. The next researcher can improve the study by adding other variables that can influence firm’s performance of consumer product firms such as liquidity, asset structure and asset quality.

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