

# THE IMPACT OF MANAGERIAL OWNERSHIP, SIZE, AND GROWTH RATE ON CAPITAL STRUCTURE

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## Abstract

*This paper examines the influence of managerial ownership, size, and growth rate on capital structure of companies which were belonged to Consumer Goods Industry and Miscellaneous Industry listed in Indonesia Stock Exchange (IDX) on the year period 2009 -2014. Panel data regression analysis is used to investigate the influence of independent variables on firm's capital structure. The empirical results demonstrate the capital structure (proxied by the total debt ratio) of the companies is positively determined by their size (proxied by the total revenue). The results of the analysis also showed that capital structure is also negatively determined by managerial ownership (measured by comparing the managerial share ownership with total of circulated shares). The finding also show that leverage negatively determined by their growth rate (proxied by the asset growth rate). These findings are consistent with the previous literature.*

**Keywords:** *Capital structure, Debt to equity ratio, Panel data, Indonesia*

## 1. INTRODUCTION

The optimal proportion between debt and equity has been important topics in corporate financial fields for several decades because it has effects on firm (Jensen, 1986). For that, most of economist and financial researchers have spent time to find optimal capital structure. The optimal proportion of debt and equity can helps company in achieving an optimal level of capital structure (Brigham et al, 2006). Based on corporate-governance theory, capital structure influences agency costs, and thus corporate value. Furthermore, the optimal level of composition of debt and equity helps company in increasing the value of the company.

Rasyid (2015) stated that capital structure is defined as the composition of the company's capital which is seen from debt and equity. These studies have already identified certain key determinants of capital structure, such as managerial ownership (Denis & McConnell, 2003) firm size (Chittenden *et al.*, 1996) and growth rate (Michaelas *et al.*, 1999). For managerial ownership, the empirical research is quite limited and findings are consistent. Based on Agency Theory, the relationship between managerial ownership and debt-to-assets ratio is negative. Furthermore, Bunkanwanicha *et al.* (2008) examined the relationship between debt, managerial behavior and firm performance and found the importance of setting of the country-specific institutional in managerial ownership-related agency problems. Berger *et al.* (1997) argues that relationship between managerial ownership and capital structure is negative.

For growth, the results are uncertain and inconsistency. Michaelas *et al.* (1999) argues that relationship between growth and leverage might be either positive or negative. Bevan and Danbolt (2002) point out that relationship between growth and leverage is positive. This findings consistent with result of Chen (2003) which found a positive relationship between growth opportunity and debt. On other hand, Antoniou *et al.* (2008) stated that growth has negative effect on leverage. Deesomsak *et al.* (2004) also found negative relation between leverage ratio and growth.

The influence of firm size on capital structure also inconsistency. Chen (2003) found a negative relation between firm size and long term debt for Chinese listed companies. On other hand, Deesomsak *et al.* (2004) point out that the relationship between firm size and leverage for companies in Asia-Pacific region is positive. Some studies also show that positive relationship exists between firm size and capital structure (Bouallegui, 2006; Antoniou *et al.*, 2008).

The hypotheses in this paper are tested using a sample of 9 companies determined through purposive sampling for period 2009 -2014. By using panel data regression analysis, this paper test the effect of size, managerial ownership, and growth rate on capital structure. The results of this paper should be useful for future empirical researchs on Consumer Goods Industry and Miscellaneous Industry sectors of countries with similar characteristics.

## 2. LITERATURE REVIEW

Capital structure is very essential for company in achieving its goals because it has effects on firm (Jensen, 1986). The optimal capital structure could maximize return and minimize the risk. For that, the question of how should a firm apportion its financing is important and should be answered correctly.

The optimal capital structure has been a topic of debate since several decades. Most studies were proposed to explain the importance of practical of the optimal composition of debt and equity for increasing the value of the firm. Some of studies found that the using debt at optimal level will increase the share price of firm because optimal composition between leverage will reduce the cost of capital financial.

### Firm Managerial ownership and Capital Structure Decision

Based on Agency Theory, the conflict of interests between managers and shareholders could be reduced by the ownership structure (Jensen & Meckling, 1976). Furthermore, ownership structure of the corporation affects proportion of debt and equity of firm (Pindado & La Torre, 2011). For that, firm's composition of debt and equity depends on who actually control the corporate.

According to Rasyid (2015) managerial ownership is defined as the proportion of share ownership by directors, management, commissioner or any parties who actively participate in the company decision-making. The increasing of managerial ownership could solve agency problem so manager (agent) will manage the firm in accordance with the interests of the owner (principal). For that, interests of the principal and the agent can be parallelized.

In line with Agency Theory, the higher managerial ownership will correspond to lower debt-to-equity ratio which implies that relationship between debt-to-assets ratio and managerial ownership is negative. The reason for using less debt is to avert financial distress because manager (agent) objective is to increase shareholders' wealth and achieve higher firm value. It is consistent with Berger *et al.* (1997) which demonstrate that relationship between managerial ownership and capital structure is negative.

Several studies have investigated the relationship between capital structure and managerial ownership. Bunkanwanicha *et al* (2008) stated that the influence of managerial ownership on capital structure also differs across countries. They found that relationship between managerial behavior, debt, and firm performance is determined by setting of the country-specific institutional in managerial ownership-related agency problems. Moreover we expect that relationship between managerial

ownership ratio of firm and capital structure is negative.

**Hypothesis 1:** *Firm managerial ownership significantly negative influence the capital structure of the firm*

### Firm Growth Rate and Capital Structure Decision

The growth of the firm is one of the goals of company because it will bring good impacts for companies. Much of the research investigated the impact of firm growth on capital structure of companies. There are uncertain and inconsistent results of relationship between growth and leverage. The study by Michaelas *et al.* (1999) found that growth might be either positively or negatively related with leverage. Bevan and Danbolt (2002) point out that firm had high levels of growth opportunities also had higher levels of debt. This findings consistent with result of Chen (2003) which found a positive relationship between growth opportunity and debt. Based on these findings, the relationship between growth and capital structure is positive.

On other hand, Deesomsak *et al.* (2004) found growth has negative effect on leverage. It is consistent with Gaud *et al.* (2005) who found that in Swiss companies, the relationship between growth and leverage is negative. This negative relationship because firms with high growth opportunities are more likely to require additional capital and result high fluctuation in their value. The firms have great fluctuations in the firm's value also have great the firm's risk. The firms have high risk makes them hard to raise external borrowing. This statement implies that relationship between firm's growth and the leverage is negative.

Furthermore, Antoniou *et al.* (2008) also found that negative relation between leverage ratio and growth. In summary, there might be either a positive or a negative relationship between the firm's capital structure and firm's growth rate but most of research findings show that the relationship is negative. The negative relationship can be justified because many firms with considerable growth rate usually require additional capital which result high fluctuation in their value. Moreover, high fluctuation results great firm's risk which affect their ability to raise debt (Michaelas *et al.*, 1999).

**Hypothesis 2:** *Firm growth significantly negative influence the capital structure of the firm*

### Firm Size and Capital Structure Decision

Many research investigated the relationship between firm size and capital structure decision such as Bouallegui (2006); Chittenden *et al.* (1996); Gaud *et al.* (2005) and Deesomsak *et al.* (2004). Bouallegui (2006) found that the size of the firm has positive relationship with capital structure. This result in line with Chittenden *et al.* (1996) finding

that firm's size of companies are positively related to its sources of financing. Furthermore, Antoniou *et al.* (2008) also found that the leverage ratio is positively related to the size of the firm. This findings also consistent with Gaud *et al.* (2005) who found that the relationship between capital structure and firm size is positive.

The are several explanations for the positve relationship between size of companies and leverage. First, the probability of default tends to be much lower in case of larger firm because larger firms tend to be more diversified. Second, larger firms tend to be much lower transaction cost associated with debt than small firm. Finally, the cost of information tend to be larger much in case of lower firm because increasing of quality of financial information which leads to be considered as trustworthy company by the lenders (Bouallegui, 2006). In summary, most of prior research shows that the relationship between the firm size and its ability to rely on debt is positive.

**Hypothesis 3:** *Firm size significantly positive influence the ability to rely on debt financing.*

### 3. RESEARCH METHODOLOGY

#### Sample Selection

This research compiles companies of Consumer Goods Industry Miscellaneous Industry listed in Indonesia Stock Exchange (IDX) in the period 2009-2014. The sample in this study is 9 companies which selected by using purposive sampling technique. All companies in our sample close their books at December 31 and all accounting periods covered in the sample are composed of twelve months.

#### Variable Definitions

The following is definitions for all variables are used in this research.

Dependent variables:

TDR = Total Debt Ratio

$$= \text{Total Liabilities (LT)} \div \text{Total Assets (AT)}$$

Independent variables:

MO = Managerial Ownership

$$= (\text{Managerial share ownership} \div \text{Total of circulated shares}) \times 100\%$$

Ag = Assets Growth Ratio =  $\frac{\text{Total Assets (AT)}_t}{\text{Total Assets (AT)}_{t-1}}$

Ln\_Rev = natural logarithm of Total Revenue Earned = Ln (Revenue-Total (REVT))

#### Descriptive Statistics

Table 1 provides the summary statistics for the defined above variables for Consumer Goods Industry Miscellaneous Industry listed in Indonesia Stock Exchange (IDX) in the period 2009-2014.

**Table-1.** Sample variables fo All years (2007-2013)

	Min	Max	Median	Mean	St. Dev.
TDR	0.640	0.910	0.847	0.830	0.065
Ln_Rev	5.475	9.731	7.678	7.651	1.156
MO	0.022	0.276	0.350	0.405	0.056
Ag	0.875	2.657	1.112	1.178	0.239

#### Empirical Specifications

Our three hypotheses specified imply three independent such as managerial ownership, size, and growth rate. Furthermore, managerial ownership is measured by comparing the managerial share ownership with total of circulated shares, growth is proxied by assets growth rate - Ag, and the size of firm which proxied via the natural logarithm of the total revenue earned in the specific year (Ln\_Rev). The dependent variable is leverage is measured by total debt ratio (TDR). The logarithmic transformation is used for best fit purposes because all independent variables are ratio.

This generates the following equations for testing of the hypotheses:

$$TDR_{it} = 0 + 1 MO_{it} + 2 Ln\_Rev_{it} + 3 Ag_{it} + \epsilon_{it}$$

Where,

$TDR_{it}$  = total debt ratio of the company i at time t

$MO_{it}$  = managerial ownership of the company i at time t

$Ln\_Rev_{it}$  = natural logarithm of total revenue of the company i at time t

$Ag_{it}$  = percentage change in assets of the firm i between time t and t-1

$\epsilon_{it}$  = random effects error term

$\eta_{it}$  = conventional error term.

### 4. ANALYSIS OF RESULTS

#### Total Debt Ratio

After computation using SPSS, the result is presented below:

$$TDR_{it} = -5,89 - 1,343 MO + 1,66 Ln\_Rev_{it} - 0,054 Ag_{it} + \epsilon_{it}$$

According to the the result of our empirical test for the model above, the  $MO$  appear to be strongly negative effect on  $TDR$ . This result consistent with Huang & Song (2006) who report a negative relation between managerial ownership and capital structure. This finding also in line with Berger *et al.* (1997) which demonstrate that relationship between capital structure and managerial ownership is negative.

Based on the result above,  $Ln\_Rev$  are also strongly positively effect on  $TDR$  in the entire sample period. This result in line with Chittenden *et al.* (1996) finding that firm's size of companies are

positively related to its sources of financing. This result also in line with Bouallegui (2006) finding that the size of the firm has positive relationship with capital structure.

Furthermore, the findings also consistent with Antoniou *et al.* (2008) who also found that the leverage ratio is positively related to the size of the firm. The result is in agreement with the positive relationship between firm size and leverage (Gaud *et al.*, 2005).

Moreover, *Ag* is also strongly negatively effect on *TDR* in the entire sample period. This finding consistent with Deesomsak *et al.* (2004) found growth has negative effect on leverage. It is also in agreement with Antoniou *et al.* (2008) which found negative relation between leverage ratio and growth. Finally, The constant value of equation is also strongly negatively associated with *TDR*.

## DISCUSSION

This study aims to to examine the effects size, managerial ownership and growth on capital structure of Consumer Goods Industry and Miscellaneous Industry listed in Indonesia Stock Exchange (IDX) on the year period 2009-2014. Based on regression output, the Wald chi-square statistics results is significant.

Based on the empirical results above, the managerial ownership is significantly and negatively affect total debt ratio for entire sample periods at the 10% level. This significant indicating that the higher the managerial ownership the lower the total debt ratio. Agreeing with Berger *et al.* (1997) who demonstrate that relationship between managerial ownership and capital structure is negative. Total revenue earned (*Ln\_Rev*) affect total debt ratio positively and significantly at 10% level. It implies that the total debt ratio increases as total revenue earned (*Ln\_Rev*) increases. This findings consistent with Gaud *et al.* (2005) who found that the relationship between capital structure and firm size is positive.

For Growth ratio of earnings (*Ag*), it is significantly and negatively related to total debt ratio. It means that the lower the assets growth ratio the higher the total debt ratio. This finding ini line with Deesomsak *et al.* (2004) who found low levels of growth opportunities had higher levels of debt. It is also agreement with Antoniou *et al.* (2008) which found negative relation between leverage ratio and growth

## 5. CONCLUSION

The primary objective of this paper is to investigate the impact of size, managerial ownership and growth on capital structure of Consumer Goods

Industry and Miscellaneous Industry listed in Indonesia Stock Exchange (IDX) on the year period 2009 -2014. Three hypotheses were developed and analyzed by panel data regression analysis.

Key findings show that the one of independent variables (*Ln\_Rev*) of companies is positively affect capital structure. These findings are in agreement with previous research which examines this relationship between managerial ownership, firm asset, and capital structure. The other result show that firm growth and managerial ownership is significantly and negatively related to total debt ratio. It means that the lower the assets growth ratio the higher the total debt ratio. It also means that higher managerial ownership will correspond to lower debt-to-equity ratio.

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