*Research Paper*

# The Influence of Capital Structure, Profitability, Liquidity, Ownership Structure, and Firm Size on Firm Value

## Musafran Harahap[1], Erlina[2], Murni Daulay[2]

[1]Postgraduate Students at University of North Sumatra, Indonesia
[2]Postgraduate Lecturer at University of North Sumatra, Indonesia

Corresponding Author: Musafran Harahap

## ABSTRACT

The objective of the research was to find out the influence of capital structure, profitability, liquidity, managerial ownership, institutional ownership, and firm size on firm value. The research used associative causal method. The population was 39 Firms of consumption goods industry listed in the Indonesia stock Exchange in the period of 2013-2016, and 21 of them were used as the samples, taken by using purposive sampling technique. Hypothesis was tasted by using multiple linear regression analysis. The result of the research showed that capital structure, profitability, liquidity, managerial ownership, institutional ownership, and firm size had positive and significant influence on firm value, while institutional ownership had positive but insignificant influence on firm value.

*Keywords:* Firm value, Capital Structure, Profitability, Liquidity, Managerial Ownership, Institutional Ownership, Firm Size

## INTRODUCTION

The establishment of a Firm must have clear goals. There are short-term goals and long-term goals. In the short term the Firm aims to achieve maximum profits by using existing resources, while in the long term the Firm's main goal is to maximize the value of the Firm. Firms that have gone public have the main objective of increasing the prosperity of the owners or shareholders through increasing the value of the Firm. The stock market price shows the value of the Firm, if the stock price increases, the value of the Firm will also increase, so that the more an increase in the share price of a Firm, the more prosperity of the shareholders will be. The current economic conditions and the large number of manufacturing Firms listed on the Indonesia Stock Exchange compared to other business sectors have created a fierce competition between manufacturing Firms. Competition for Firms in the manufacturing industry requires every Firm to improve its performance so that its goals can be achieved.

Firm value for investors is an important concept because Firm value is an indicator of how the market evaluates the Firm as a whole. Firm value reflects the Firm's performance which can affect investors' perceptions of the Firm. If the implied value of the Firm is not good, investors will value the Firm with a low value. The value of the Firm for the creditor is related to the liquidity of the Firm, that is, the Firm is considered able or not to return the loan provided by the creditor. The Firm's financial performance is one of the factors seen by prospective investors to determine stock investment. For a Firm, maintaining and improving financial performance is a necessity so that the shares remain and remain attractive to investors. The financial

statements issued by the Firm are a reflection of the Firm's financial performance. Financial statements are the end of the accounting process with the aim of providing financial information that can explain the condition of the Firm in a period. Financial information has a function as a means of information, a tool of management accountability to the owner of the Firm, a description of the indicators of the Firm's success and as a material consideration in decision making (Harahap, 2004).

There are several factors that influence the value of the Firm, including: capital structure, profitability, liquidity, ownership structure, funding decisions, dividend policy, Firm growth, and Firm size. The problem of capital structure is an important problem for every Firm, because the bad capital structure of the Firm will have a direct effect on its financial position. A Firm that has a capital structure that is not good, where having a very large debt will give a heavy burden to the Firm. The Research Objectives are

To analyze the influence of capital structure partially on firm value, analyze the influence of Firm profitability partially on firm value, analyze the influence of Firm liquidity partially on firm value, analyze the influence of managerial ownership partially on firm value, to analyze the effect of partial institutional ownership on value Firm, analyze the influence of Firm size partially on firm value and analyze the effect of capital structure, profitability, liquidity, managerial ownership and institutional ownership and the size of the Firm simultaneously on firm value.

## LITERATURE REVIEW
### The value of the Firm

Firm value is an investor's perception of the level of success of the Firm in managing resources reflected in the Firm's stock price. The stock price used generally refers to the closing price (clossing price), and is the price that occurs when shares are traded in the market (Fakhruddin and Hadianto, 2001). Higher stock prices make the value of the Firm high, and will increase market confidence not only in the Firm's current performance but also in the Firm's prospects in the future. The higher the stock price, the higher the prosperity of shareholders. Maximizing shareholder prosperity also means that management must maximize the present value of the expected return in the future.

### Capital Structure Theory
### Modigliani-Miller Model Without Tax

Modigliani and Miller (MM) introduced a model of capital structure mathematically, scientifically and on the basis of continuous research. This theory states that the capital structure is irrelevant or does not affect the cost of capital, the total size of the Firm will not change even though there is a change in the proportion between debt and capital. Modigliani and Miller (1958) prove, with a set of very restrictive assumptions, that the value of a Firm does not influence its capital structure. The limiting and unrealistic assumptions of MM theory are:
1. There are no broker fees,
2. There is no tax
3. There is no bankruptcy fee,
4. Investors can borrow at the same level as the Firm,
5. All investors have the same information with management about future corporate investment opportunities, and
6. EBIT has no effect by using debt.

### Modigliani-Miller Model With Tax

In 1963, MM published articles as a continuation of MM's theory in 1958. The altered assumption was the existence of a tax on Firm earnings. MM's theory with this tax concludes that the use of debt will increase the value of the Firm because the cost of interest on debt is a cost that reduces payment of taxes. MM theory with tax there are two prepositions, namely:
1. Preposition I
The value of a Firm that owes is equal to the value of a Firm that is not in debt plus tax savings due to debt interest. The implication of this preposition I is that financing with

debt is very profitable and MM states that the optimal capital structure of the Firm is one hundred percent debt.

2. Preposition II

The cost of share capital will increase with increasing debt, but the tax savings will be greater than the decrease in value due to the increase in the cost of share capital. The implication of this preposition II is that the more use of debt will increase the cost of share capital. Using more debt means using cheaper capital (the cost of debt capital is smaller than the cost of share capital), which will reduce the weighted average cost of capital (even though the cost of share capital increases).

**Trade-off Theory**

The trade-off theory suggests that the Firm's optimal debt ratio is determined by the trade-off between profits and losses from borrowing, investment in Firm assets and investment planning. The Firm will substitute debt with equity or equity with debt to maximum Firm value. The advantage of using debt, in the form of tax shelter effects, arises when the Firm pays the interest expense of the debt, it will reduce the taxable income of the Firm so that the tax paid by the Firm is smaller (tax shield).

Firms that follow the trade-off theory will determine the target debt-to-value ratio and will gradually go towards that target. This target is determined by balancing the benefits of tax deductions (debt tax shields) with the cost of bankruptcy.

The trade-off model states that the optimal capital structure is obtained by balancing the tax shield profit due to debt with financial distress cost and agency cost so that the benefits and costs of debt are trade-off from each other (Brigham and Gapenski, 1994).

**Pecking Order Theory**

Pecking Order Theory suggests that the Firm has a sequence in conducting financing starting with the order of retained earnings, debt to third parties either by loan or selling bonds and finally by issuing new shares. The sequence of financing is a sequence based on the costs that must be incurred by the Firm and the cost of equity is the highest cost. Based on the pecking order theory, Firms will prefer internal funding compared to external funding and Firms with a high level of profitability, low debt, because Firms with high profitability have abundant internal funding sources. This hypothesis was developed by Stewart Myers in 1984, explaining the phenomenon of how Firms establish capital structures.

**Signaling Theory**

MM theory assumes that investors have the same information about the prospects of a Firm as their managers, this is called symmetric information. But in reality, managers often have better information than outside investors. This is called asymmetric information and has an important influence on optimal capital structure. Signaling theory assumes that issuing shares will send a negative signal, while using debt is a positive or at least neutral signal. As a result, Firms try to avoid issuing shares by maintaining reserve loan capacity, and this means using smaller debt at normal times (Brigham and Houston, 2006).

**Agency Theory**

Agency theory describes the relationship between shareholders as principals and management as agents. Management is a party contracted by shareholders to work in the interests of shareholders. Because they were chosen, the management must be accountable for all their work to shareholders. According to agency theory, conflicts between principals and agents can be reduced by aligning interests between principals and agents. The presence of managerial ownership (insider ownership) can be used to reduce the agency cost that has the potential to arise, because by owning the shares of the Firm, managers are expected to feel the direct benefits of each decision taken. This process is called bonding mechanism, a process to equalize the interests of management through a binding program of management in the Firm's capital.

**Capital Structure**

Understanding capital structure according to Sjahrial (2008) is a balance between the use of loan capital consisting of permanent short-term debt and long-term debt with own capital consisting of preferred shares and ordinary shares. Capital structure according to Horne and John (2010) is the proportion of the Firm's long-term permanent funding or capital represented by debt, preferred shares and ordinary equity. Riyanto (2010) capital structure is a permanent expenditure which is reflected in the balance between own capital and long-term debt. From some of the meanings above, it can be concluded that the capital structure is a composition between own capital and long-term debt in permanent financing.

**Profitability**

Profitability shows the Firm's ability to generate profits for a certain period. The higher the Firm's profit represents the more prosperous the owner of the Firm. Profitability is a picture of management's performance in managing the Firm. According to Brigham & Houston (2006), profitability can be measured by several financial ratios (profitability ratios), namely:
1. Profit Margin on Seles, which is calculated by dividing net income with sales, will show profit per sales value
2. The basic ability to generate profits (Basic Earning Power-BEP), calculated by dividing profits before interest expense and tax (EBIT) with total assets.
3. The rate of return on total assets, the ratio between net income to total assets measures the total rate of return on assets (Return On Assets-ROA) after interest and tax expenses.
4. Return on Equity (ROE), the ratio of net income to common stock equity, which measures the rate of return on investment from ordinary shareholders.

**Liquidity**

Noor (2014) states the definition of liquidity as a ratio that shows the Firm's ability to fulfill short-term liabilities (liabilities that are due). Subramanyam (2011) states that liquidity is the Firm's ability to fulfill its short obligations. Whereas Rahardjo (2009) states that liquidity (liquidity) is the Firm's ability to fulfill obligations or short-term debt that must be resolved immediately.

The higher the Firm's liquidity, the more funds available to Firms to finance Firm operations, investments and pay dividends so that the perception of imvestor on Firm performance will increase. Stock prices are also predicted to increase as well and the value of the Firm will be affected profitably. In different conditions, an increase in liquidity can also be perceived as the opposite, which is bad. If the increase in liquidity does not increase dividends but increases free cash flow in the Firm, it is predicted that agency costs will increase.

The measure of liquidity that is often used is Current Ratio (CR) and Quick Ratio (QR). Current Ratio is a ratio used to measure a Firm's ability to meet its short-term obligations with its current assets. The CR ratio shows the level of short-term creditor security or the ability of the Firm to pay its debts. Systematically, the liquidity ratio of CR is shown in the following formula:

$$CR\,(Current\,Ratio) = \frac{Current\,Asset}{Current\,Liabilities}\,X\,100\%$$

Acid-Test Ratio (ATR) is the same size as the current ratio, without taking into account inventory (inventory is the most illiquid current assets because it is not easy to sell, and even if sold usually with credit). Systematically, the ATR liquidity ratio is shown in the following formula:

$$ATR\,(Acid\,Test\,Ratio) = \frac{Current\,Asset - Inventory}{Current\,Liabilities}\,X\,100\%$$

**Ownership structure**

One characteristic of the ownership structure is the concentration of ownership divided into two forms of ownership structure, namely: concentrated ownership, and spread ownership. (1) Concentrated ownership (closely held). Share ownership is said to be concentrated if most shares are owned by a small number of individuals or

groups, so that the shareholders have a relatively dominant number of shares compared to others. In this type of ownership two groups of shareholders arise, namely controlling interest and minority interest (shareholders). (2) Spread ownership (dispersed ownership). Share ownership is said to spread, if share ownership spreads relatively evenly to the public, no one has shares in a very large number compared to others (Dallas, 2004).

Managerial ownership is the number of shares owned by Firm management such as managers. Jensen & Meckling (1976), argues that Firms that have high managerial ownership will make agency costs in the Firm low, because of the possibility of pooling interests between shareholders and managers who have a dual function as agents and principals. Institutional ownership is a shareholder by parties outside the Firm. Institutional shareholders usually take the form of entities such as banking, insurance, pension funds, mutual funds and other institutions. Institutional investors are generally quite large shareholders because they have large funding. The greater the level of institutional shareholding the greater the supervision carried out to obstruct the opportunistic behavior of managers (Dian and Lidyah, 2013).

**Firm Size**

The size of the Firm describes the size of a Firm where the size of the Firm influences the investor's judgment in making investment decisions. Firm size is measured by the amount of total assets owned by a Firm.

According to Analysis (2011) the size of the Firm has a different influence on the value of the Firm in a Firm. In terms of Firm size seen from the total assets owned by the Firm, which can be used for the Firm's operational activities. If the Firm has a large total assets, the management of the Firm is free to use the assets that exist in the Firm. This freedom owned by management is comparable to the concern made by the owner of his assets. A large amount of

assets will reduce the value of the Firm if it is judged from the side of the Firm owner, but if viewed from the management side, the ease with which it controls the Firm will increase the value of the Firm. If the Firm has large total assets, the management is more flexible in using the assets in the Firm. If viewed from the management side, the ease with which it controls the Firm will increase the value of the Firm (Suharli, 2006). In general, the size of the Firm can be formulated:

*Size = Ln total from Activa* (*Ln = Logaritma Natural*).

## MATERIALS & METHODS

The type of research used in this study is associative, namely research that aims to determine the relationship between two or more variables, while the research method used is a quantitative method by analyzing secondary data.

Research that emphasizes testing theories through measuring research variables with numbers and analyzing data with statistical procedures. This research was conducted at the consumer goods industry sector manufacturing Firms listed on the Indonesia Stock Exchange in the period 2013-2016 through the website www.idx.co.id. The time of the study is from March to October 2017. The population in this study is the manufacturing of consumer goods industry sectors listed on the Indonesia Stock Exchange from 2013 to 2016 as many as 39 Firms.

**Dependent Variable**

The dependent variable is a variable that is influenced by independent variables. The dependent variable in this study is firm value. Firm value is an investor, which is often associated with stock prices. The Firm value was measured by price book value (PBV). PBV describes how much the market values of the book value of a Firm's stock. The higher this ratio means the market believes in the Firm's prospects (Wardani and Hermuningsih, 2011). The price for book value (PBV) for the

consumer goods manufacturing industry in the IDX sector during the period 2013-2016.

**Independent Variable**

Independent variable is a stimulus variable or variable that affects other variables, Jonathan Sarwono (2010). In this study, the independent variables used were capital structure, profitability, liquidity, managerial ownership, institutional ownership, and Firm size. The ratio that is commonly used to see the effect of loans from creditors both used as additional capital and sources of funds for asset purchases is the debt ratio, which is seen from the capital structure, namely Debt to Equity Ratio (DER). The profitability ratio calculates the Firm's ability to make a profit. In this study a proxy Return on Equity (ROE) is used to measure the profitability of a Firm. ROE ratio is the ratio of net income to common stock equity, which measures the rate of return on investment from ordinary shareholders.

The Firm's liquidity variable is measured by the current ratio (CR) which is one measure of the liquidity ratio which describes the Firm's ability to meet its current liabilities through a number of current assets owned by the Firm. Managerial ownership is the percentage of share ownership in the Firm by management or in other words the management is also a shareholder (Adnyana, 2013). Rahayu (2010) management ownership is defined as the percentage of shares held by management who actively participate in corporate decision making which includes commissioners and directors. Share ownership by management as an instrument or tool used to reduce agency conflicts between the principal and agents of a Firm. In this study, managerial ownership is measured by managerial ownership (MOW).

Institutional ownership (IOW) is the proportion of share ownership by an institution, in this case the founding institution of a Firm, not an institution that is a public shareholder, measured by the percentage of shares held by internal institutional investors. This measurement refers to the study of Sudarma (2003), Friend and Hasbrouk (1988). Firm size (Size) is seen from the total assets owned by the Firm that can be used for Firm operations. If the Firm has a large total asset, management is more free to use the assets in the Firm.

**Statistical Analysis**

**Table 1 Statistik Deskriptif PBV, DER, ROE, CR, MOW, IOW, dan SIZE**

| Descriptive Statistics | | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| PBV (Y) | 84 | .10 | 48.67 | 5.9351 | 8.35562 |
| DER (X1) | 84 | .19 | 3.56 | .8115 | .56834 |
| ROE (X2) | 84 | 2.73 | 143.53 | 22.5035 | 24.83565 |
| CR (X3) | 84 | 51.39 | 712.54 | 253.1529 | 143.44635 |
| MOW (X4) | 84 | .000000 | .252200 | .02658095 | .063947581 |
| IOW (X5) | 84 | .330700 | .981800 | .75195595 | .170563153 |
| SIZE (X6) | 84 | 2.86 | 7.97 | 6.4533 | .82594 |
| Valid N (listwise) | 84 | | | | |

Based on the test results in Table 1 above, it can be seen that N or the total number of each variable is 84 observational data from 21 samples of consumer goods industry Firms listed on the Indonesia Stock Exchange for the period of 2013 to 2016. Firm value variable (PBV) at Table 1 shows a minimum value of 0.10 and a maximum value of 48.67. This shows that most consumer goods industry Firms have positive corporate values as measured by price to book value. The average Firm value of 5.9351 indicates that every 1 book value of the Firm is responded by the market for 5.9351. The average value of a Firm that exceeds 1 indicates that investors are willing to pay more for shares than the value of the book. This can be interpreted that Firms that have a value above 1 are Firms that have high value. The value of the Firm with an

average of 5.9351 indicates that the average consumer goods industry Firm listed on the Stock Exchange in the period 2013 to 2016 has a high corporate value. The standard deviation of 8.33556 is greater than 5.9351 as the average value of the Firm value variable. This condition indicates a large fluctuation in the value of the Firm in the consumer goods industry Firms that are sampled, because the deviation rate is greater than the average value.

Capital structure as measured by the debt to equity ratio (DER) is the ratio between total debt to equity. In Table 1 can be seen the highest value for the capital structure variable (DER) with a maximum value of 3.56. That is, Firms use debt greater than the equity they have. Debt policy numbers that are more than 1 indicate that Firms prefer to finance Firms with debt. So for Firms that have a debt policy number above 1 indicates that the owner's participation is smaller than the participation of creditors. The minimum value of the capital structure variable (DER) is 0.19, meaning that the Firm uses debt less than the equity held as a source of funding. The capital structure variable (DER) has an average value of 0.8115. The average debt policy amounting to 0.8115 shows that the average consumer goods industry Firm listed on the Indonesia Stock Exchange for the period of 2013 until 2016 uses 0.8115 of each rupiah of its own capital to be used as collateral for debt. The provisions of a Firm are said to be solvable if the average value of capital structure is greater than or equal to 1, and because the average value = 0.8115 <1, it can be said to be insolvable, which means the capital structure of the consumer goods industry the period of 2013 to 2016 does not have the ability to pay off its obligations with all of its assets. The standard deviation value of 0.5683 which is smaller than the average value of capital structure 0.8115 shows that there is no large capital structure fluctuations in the consumer goods industry Firms that are sampled.

Profitability as measured by return on equity (ROE) is the result of the division between net income and equity. The variable profitability (ROE) in Table 1 has a minimum value of 2.73 and a maximum value of 143.53. This condition shows that most of the consumer goods industry Firms that are sampled have positive profitability values as measured by return on equity. The average value of profitability (ROE) variable is 22.5035 with a standard deviation of 24.8357, indicating a level of deviation that is greater than the average value of profitability variables, this condition indicates a large fluctuation in profitability in consumer goods industry Firms that become sample.

The liquidity variable in Table 1 shows a minimum value of 51.39 and a maximum value of 712.54. The average value of liquidity reaching 253.1529, indicates that the average consumer goods industry Firm uses 253.1529 of each rupiah of current assets to meet its short-term obligations. The provision of determining whether or not a Firm is liquid is if the average value of liquidity is greater or equal to 200%, with an average value = 253.1529> 200, it is said to be liquid. The standard deviation value of 143.4464 signifies the level of deviation is smaller than the average value of the liquidity variable, so it can be said that this condition indicates no large liquidity fluctuations in the consumer goods industry Firms that are sampled.

The managerial ownership variable (MOW) in Table 1 shows a minimum value of 0.00000 and a maximum value of 0.252200. The highest value of 0.252200 indicates that 25.22% of the Firm's shares are owned by managerial parties which can lead to low external control of the Firm. The lowest value of 0.00000 indicates that only 0,000% of the Firm's shares are owned by managerial parties. The low managerial ownership can facilitate the supervision of external parties to management. The average value of managerial ownership variable (MOW) is 0.02658095 while the

standard deviation value of managerial ownership is 0.063947581. The level of deviation is greater than the average value of managerial ownership variables, so it can be said that this condition shows managerial ownership with large fluctuations or quite varied data on consumer goods industry Firms that are sampled.

Institutional ownership (IOW) is defined as the percentage of the number of institutionally owned shares of the Firm's outstanding share capital. The institutional ownership (IOW) variable in Table 1 shows an average value of 0.75195595, a standard deviation of 0.170563153, a minimum value of 0.330700 and a maximum value of 0.981800. This means that the average sample Firm shares owned by outside parties in the form of institutions amounted to 75.195595%, the smallest number of sample Firm shares owned by institutions amounted to 33.07% and the largest sample Firm shares owned by institutions amounted to 98.18%. The standard deviation value that is smaller than the mean value shows less varied data. The Firm size variable (size) in Table 1. shows a minimum value of 2.86 and a maximum value of 7.97. The average value of the Firm is 6.4533 with a standard deviation of 0.82594. These results indicate that the size of the Firm's capital structure which is the sample of this study is between 2.86 to 7.97. The standard deviation value is 0.82594 which is smaller than the mean value or an average of 6.4533 indicating less varied data.

## RESULT
### Classic assumption test
### Normality test

**Table 2 Uji Normalitas**

| One-Sample Kolmogorov-Smirnov Test | | |
|---|---|---|
| | | Unstandardized Residual |
| N | | 84 |
| Normal Parameters[a,b] | Mean | .0000000 |
| | Std. Deviation | 2.23895644 |
| Most Extreme Differences | Absolute | .099 |
| | Positive | .054 |
| | Negative | -.099 |
| Kolmogorov-Smirnov Z | | .907 |
| Asymp. Sig. (2-tailed) | | .383 |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |

Based on Table 2, it is known the probability value p or Asymp. Sig. (2-tailed) of 0.383. Because the probability value p, which is 0.383 is greater than the significance level, which is 0.05. This means that the assumption of normality is fulfilled.
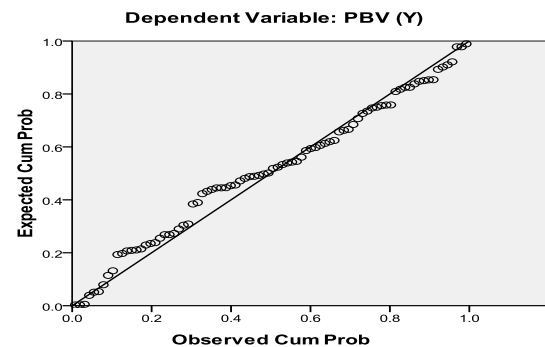


**Figure 1 Normality Test with a Normal Approach to Probability Plot**

Based on the normality test with a normal probability plot approach (Figure 1), the points spread quite close to the diagonal line. This indicates the assumption of normality is fulfilled.

### Multicollinearity Test

To check whether there is multicollinearity or not can be seen from the value of the variance inflation factor (VIF). VIF value of more than 10 is indicated by an independent variable that occurs multicollinearity (Ghozali, 2013).

**Table 3 Uji Multikolinearitas**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | DER (X1) | .327 | 3.058 |
| | ROE (X2) | .622 | 1.609 |
| | CR (X3) | .435 | 2.300 |
| | MOW (X4) | .607 | 1.647 |
| | IOW (X5) | .610 | 1.638 |
| | SIZE (X6) | .771 | 1.298 |

Based on Table 3, it is known that all VIF values are not more than 10 or all VIF values <10, so multicollinearity is not indicated.

Heteroscedasticity Test

The detection of heteroscedasticity can also be done using the Glejser test. The

following results are based on the Glejser heteroscedasticity test.

**Table 4 Heteroscedasticity Test with Glejser Test**

| Coefficients[a] | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | | T | Sig. |
| | | B | Std. Error | Beta | | | |
| 1 | (Constant) | 4.176 | 4.029 | | | 1.036 | .303 |
| | DER (X1) | -.942 | 1.222 | -.147 | | -.771 | .443 |
| | ROE (X2) | .032 | .020 | .221 | | 1.605 | .113 |
| | CR (X3) | .000 | .004 | -.011 | | -.064 | .949 |
| | MOW (X4) | -.030 | .039 | -.090 | | -.789 | .433 |
| | IOW (X5) | -1.066 | 2.172 | -.057 | | -.491 | .625 |
| | SIZE (X6) | -.198 | .498 | -.045 | | -.399 | .691 |
| a. Dependent Variable: Glejser_Heteroskedasticity | | | | | | | |

Based on the results of heteroscedasticity tests with the Glejser test (Table 4), all Sig> 0.05 values were found, so it was concluded that there were no symptoms of heteroscedasticity.

**Autocorrelation Assumption Test**

Assumptions about the independence of residuals (non-autocorrelation) can be tested using the Durbin-Watson test (Field, 2009: 220). The statistical value of the Durbin-Watson test ranges between 0 and 4. The statistical value of the Durbin-Watson test that is smaller than 1 or greater than 3 is indicated by autocorrelation.

**Table 5 Autocorrelation Test**

| Model | Durbin-Watson |
|---|---|
| 1 | 1.945 |

Based on Table 5, the value of the Durbin-Watson statistic is 1.945. The Durbin-Watson statistical value lies between 1 and 3, so the assumption of non-autocorrelation is fulfilled. In other words, there is no symptom of high residual autocorrelation.

**Determination Coefficient Analysis**

The coefficient of determination ($R^2$) is a value (proportion value) that measures how much the ability of the independent variables used in the regression equation, in explaining variations in non-independent variables.

Wibowo, (2012) states that Adjust R2 is used to assess the Determination Coefficient if the regression model used in the study has more than two independent variables.

**Table 6 Coefficient of Determination**

| Model Summary[b] | | | | | |
|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .963[a] | .928 | .923 | 2.32455 | 1.945 |
| a. Predictors: (Constant), SIZE (X6), DER (X1), IOW (X5), ROE (X2), MOW (X4), CR (X3) | | | | | |
| b. Dependent Variable: PBV (Y) | | | | | |

Based on the results of calculations in Table 6 the Determination Coefficient, it is known that the coefficient of determination is 0.928 which means the influence of independent variables together namely X1 (Capital Structure), X2 (Profitability), X3 (Liquidity), X4 (Managerial Ownership), X5 ( Institutional Ownership) and X6 (Firm Size) to the dependent variable namely Y (Firm Value) is equal to 0.928 or 92.8% while the remaining 0.072 or 7.2% is explained by other variables not included in this study. The results of this analysis indicate that all independent variables, namely DER, ROE, CR, MOW, IOW, and SIZE simultaneously influence PBV variables of 92.8%, the remaining 7.2% is influenced by other factors.

**Test of Significance of Simultaneous Influence (Test F)**

The F test aims to test the effect of independent variables together or simultaneously on non independent variables.

**Table 7 Simultaneous Influence Test with F Test**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| ANOVA[b] | | | | | | |
| 1 | Regression | 5378.681 | 6 | 896.447 | 165.900 | .000[a] |
| | Residual | 416.073 | 77 | 5.404 | | |
| | Total | 5794.754 | 83 | | | |
| a. Predictors: (Constant), SIZE (X6), DER (X1), IOW (X5), ROE (X2), MOW (X4), CR (X3) | | | | | | |
| b. Dependent Variable: PBV (Y) | | | | | | |

Based on Table 7, it is known that the calculated F value is 165,900 and Sig 0,000. Because the value of 169,900 F count> F table 2,218 Sig 0,000 <0,05, then DER, ROE, CR, MOW, IOW, and SIZE simultaneously have significant effect on PBV.

Multiple Linear Regression Analysis and Significance Test for Partial Effect (t Test) Table 8 below presents the regression coefficient value, as well as the statistical value t for the partial influence test.

**Table 8 Test of Significance of Partial Influence (Test t)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -14.824 | 3.640 | | -4.072 | .000 |
| | DER (X1) | 3.358 | .785 | .228 | 4.277 | .000 |
| | ROE (X2) | .291 | .013 | .865 | 22.332 | .000 |
| | CR (X3) | .009 | .003 | .154 | 3.332 | .001 |
| | MOW (X4) | 13.381 | 5.120 | .102 | 2.613 | .011 |
| | IOW (X5) | 2.112 | 1.915 | .043 | 1.103 | .273 |
| | SIZE (X6) | 1.126 | .352 | .111 | 3.199 | .002 |

Based on Table 8, the following multiple linear regression equations are obtained.
Y = -14,824 + 3,358X1 + 0,291X2 + 0,009X3 + 13,381X4 + 2,112X5 + 1,126X6
Based on the multiple linear regression equation above, it is known:
1. The regression coefficient of DER is 3.358 which is positive. This value can be interpreted that DER has a positive effect on PBV. It is known that the Sig value is 0,000 <0,05 and the value of t count | 4,277 | > t table | 1.99 |, then DER has a significant effect on PBV. This can be interpreted that the results of the significance test of the relationship between capital structure (DER) and firm value (PBV) are positive and significant.
2. The regression coefficient of ROE is 0.291, which is positive. This value can be interpreted as ROE having a positive effect on PBV. It is known that the Sig value is 0,000 <0,05 and the value of t count | 22,332 | > t table | 1.99 |, then ROE has a significant effect on PBV. From the second value of the results of this test can be interpreted that profitability (ROE) has a positive and

significant relationship with firm value (PBV).
3. The regression coefficient of CR is 0.009 which is positive. This value can be interpreted CR has a positive effect on PBV. It is known that the Sig value of 0.001 <0.05 and the value of t count | 3.332 | > t table | 1.99 |, then CR has a significant effect on PBV. Through both the results of the significance test value it can be interpreted that liquidity (CR) has a positive and significant relationship with firm value (PBV).
4. The regression coefficient from MOW is 13,381 which is positive. This value can be interpreted that managerial ownership (MOW) has a positive effect on PBV. It is known that the Sig value is 0.011 <0.05 and the value of t count | 2,613 | > t table | 1.99 |, then MOW has a significant effect on PBV. Based on the value of the significance test results it can be said that the relationship between managerial ownership (MOW) and Firm value (PBV) is positive and has a significant effect on firm value (PBV).
5. The regression coefficient of IOW is 2.112 which is positive. This value can

be interpreted that IOW has a positive effect on PBV. It is known that the Sig value is 0.273> 0.05 and the t count value is 1.103 | <t table | 1.99 | then IOW has no significant effect on PBV. Significant test results on the relationship of institutional ownership to firm value are positive and have no significant effect.

6. The regression coefficient of SIZE is 1.126 which is positive. This value can be interpreted SIZE to have a positive effect on PBV. It is known that the Sig value is 0.002 <0.05 and the t value is | 3.199> t table | 1.99, so SIZE has a significant effect on PBV. The results of the significance test on the relationship of Firm size to firm value are positive and significant.

## DISCUSSION
### Effect of Capital Structure on Firm Values

The results of the first hypothesis testing obtained the regression coefficient value of DER is 3.358 and the Sig value is 0,000 <0.05 and the value of t count | 4,277 | > t table | 1.99 |, this result shows that the capital structure (DER) has a positive and significant effect on firm value (PBV) on consumer goods industry Firms listed on the Indonesia Stock Exchange from 2013 to 2016. Based on the trade-off theory, if the capital structure position is above the optimal capital structure target, then any increase in debt will reduce the value of the Firm. Determination of the target of optimal capital structure is one of the main tasks of Firm management. Capital structure is the proportion of funding with a Firm's debt (debt financing), which is the leverage ratio of a Firm. Thus, debt is an element of the Firm's capital structure. Capital structure is the key to improving productivity and Firm performance. The capital structure theory explains that the Firm's financial policy in determining the capital structure (the mix between debt and equity) aims to optimize the value of the Firm.

The results of this study found that the influence of a positive and significant capital structure on firm value was supported by a trade off theory which states that (assuming the target capital structure is not optimal) an increase in the debt ratio in the capital structure will increase the value of the Firm. This positive relationship shows that the higher the Firm's capital structure, the higher the value of the Firm and vice versa. Therefore, increasing the capital structure (DER) will increase the value of the Firm, because the optimal capital structure can be interpreted as a capital structure that can minimize the cost of using the overall capital or the average capital cost, so that it will produce corporate value.

This finding also supports the MM theory with taxes which states that the use of debt will increase the value of the Firm because the cost of interest on debt is a cost that reduces tax payments. As long as the Firm is able to balance the benefits and costs incurred due to debt, it is not a problem because with a high DER but followed by good management (the balance between benefits and costs) can increase profits and Firm value.

### Effect of Profitability on Firm Values

The results of testing the second hypothesis obtained a regression coefficient of ROE is 0.291 with a Sig value of 0.000 <0.05 and a t count value | 22.332 | > t table | 1.99 |, this shows that Profitability (ROE) has a positive and significant effect on firm value (PBV) on consumer goods industry Firms listed on the IDX from 2013 to 2016. This means that the profits of a Firm have the effect that is in line with the value of the Firm. Basically profitability shows the ability of the Firm to get a net profit from net sales and also can measure the ability of the Firm's management in carrying out its operational activities by minimizing the burden of the Firm and maximizing Firm profits. This means that the higher the value of the profit obtained, the higher the value of the Firm, because high profits will give an indication of good corporate prospects so

that it can trigger investors to participate in increasing demand for shares. Increasing demand for shares will lead to increased Firm value. This is what can increase the value of the Firm so that investors are also more interested in investing in the Firm.

**Effect of liquidity on Firm value**

The results of testing the third hypothesis obtained the value of the regression coefficient of CR is 0.009 with a Sig value of 0.001 <0.05 and a t count value | 3.332 | > t table | 1.99 |, this result shows that liquidity has a positive and significant influence on firm value. This positive relationship shows that the higher the value of the Firm's liquidity, the higher the value of the Firm and vice versa. The results of this study say that liquidity has a significant effect on firm value. Basically liquidity is the ability of a Firm to meet its short-term obligations, which of course can increase the value of the Firm because of the small value of debt. Based on the results of the study provide empirical evidence that liquidity has a significant effect on firm value, it can be interpreted that the value of the Firm is influenced by liquidity and for that the Firm needs to maintain the level of liquidity so that excessive levels of liquidity do not occur, which can affect the Firm's value.

**Effect of Managerial Ownership on Corporate Values**

The results of testing the fourth hypothesis obtained the regression coefficient from Managerial Ownership (MOW) is 13,381 with Sig 0.011 <0.05 and t count value | 2,613 | > t table | 1.99 |, this shows that managerial ownership has a positive and significant effect on firm value. This means that the greater the proportion of managerial ownership will increase the value of the Firm because Firm management has significant control over the Firm. This shows that shares owned by managerial parties will influence the increase in the value of the Firm. When managers have a share contribution to the Firm, they will work seriously to achieve maximum results. The results of this study state that

Managerial Ownership does not have a significant effect on firm value. partially managerial ownership does not have a positive influence on Firm value. Demonstrating Managerial Ownership is proven to have a negative and not significant effect on firm value. The results of his research show Managerial Ownership has a negative and significant effect on firm value, which means high managerial ownership will reduce the value of the Firm.

**Effect of Institutional Ownership on Corporate Values**

The results of testing the fifth hypothesis obtained the regression coefficient from IOW is 2.112 with Sig value of 0.273> 0.05 and t count value | 1,103 | <t table | 1.99 |, the results of this test indicate that institutional ownership (IOW) has no significant positive effect on firm value. This result means that ownership by institutions can act as a corporate governance mechanism in reducing agency problems, because ownership concentration can make shareholders in a strong position to be able to control management effectively, so as to encourage management to act in accordance with the interests of shareholders.

The greater the institutional ownership, the more efficient the utilization of Firm assets and is expected to also be able to act as a deterrent to the waste and manipulation of profits made by management so that it will increase the value of the Firm. This study shows that the greater the number of shareholdings by the institution, the institutional supervision has an insignificant influence on increasing the value of the Firm.

**Effect of Firm Size (SIZE) on Firm Values**

The results of testing the sixth hypothesis obtained the regression coefficient of SIZE is 1.126 with a Sig value of 0.002 <0.05 and a calculated t value | 3,199 | > t table | 1.99 |, this result shows that Firm size (Total Asset) has a positive and significant effect on firm value (PBV). The results of this study indicate that firm

size variables have a positive and significant effect on firm value. Therefore, increasing the size of the Firm (Total Asset) will increase the value of the Firm. This can be explained that the size of the Firm is very influential on the decision to use debt in the capital structure, especially related to the ability to obtain loans. The size of the Firm describes the size of a Firm as indicated by total assets, total sales, average level of sales and average total assets. Large Firms can more easily access the capital market and with such convenience, it can be concluded that large Firms have the flexibility and ability to obtain funds or capital. Large Firms tend to be easier to obtain loans from third parties, because their ability to access other parties or guarantees in the form of assets with greater value than small Firms. The ease of access to the capital market means that the Firm has the flexibility and ability to get more funds. With this convenience, investors are captured as a positive signal and a good prospect so that the size of the Firm can have a positive influence on the value of the Firm. The size of the Firm influences the value of the Firm based on the fact that the larger a Firm, the tendency to use debt becomes greater. The increase in debt will increase the value of the Firm. Large Firm size indicates that the Firm has developed so investors will respond positively and the value of the Firm will increase

## CONCLUSION

Based on the formulation of the problem, the theoretical basis, the hypothesis and the results of the tests that have been carried out, it can be concluded that the capital structure (DER) has a positive and significant effect on firm value (PBV). This shows that an increase in debt will also lead to an increase in business if it is balanced with the use of careful debt, where the profit earned must be higher than the interest expense of using debt, this condition will be able to increase the value of the Firm. Profitability (ROE) has a positive and significant effect on firm value

(PBV). High profitability will provide a positive signal for investors that the Firm is in a favorable condition or has the ability to profit, in this case is the Firm's ability to generate a return on its own capital. This is an attraction for investors to own the Firm's shares, so that high demand for shares will increase the Firm's selling value to be even greater or the Firm's value increases. This means that when there is an increase in profits, the share price also rises, thus increasing the value of the Firm. ROE is a reflection of the Firm in front of investors and the public about the Firm's prospects in the future. The higher the value of ROE, the higher the value of the Firm and the ability of the Firm to effectively use its resources. Liquidity measured by Current Ratio, partially has a positive and significant effect on the value of consumer goods industry Firms listed on the Stock Exchange in the period of 2013 to 2016. This shows that the Firm's ability to settle its short-term obligations can affect the value of the Firm. Managerial ownership has a positive and significant effect on the value of the Firm (PBV) registered on the IDX for the period 2013 to 2016. Based on agency theory, managerial ownership can be one mechanism to reduce opportunistic behavior of managers. This shows that the shares held by managerial parties will affect the increase in Firm value. When managers have a share contribution to the Firm, they will work seriously to achieve maximum results. Institutional ownership has a positive and insignificant effect on firm value. This shows that the greater the shares held by institutional parties / shareholders will have a major influence on increasing the value of the Firm. This study shows that the greater the number of shares owned, the more closely monitored the institutional parties that influence the increase in Firm value. Ownership by institutions can play a role as a corporate governance mechanism in reducing agency problems, because ownership concentration can make shareholders in a strong position to be able to control management effectively, thereby

encouraging management to act in accordance with the interests of shareholders. Firm size (Size) has a positive and significant effect on firm value. Therefore, increasing the size of the Firm (Total Asset) will increase the value of the Firm. The conclusion model in this study is that simultaneously there are influences between capital structure, profitability, liquidity, managerial ownership, institutional ownership and firm size on the value of Firms in consumer goods industry Firms listed on the Indonesia Stock Exchange from 2013 to 2016.

## REFERENCES

- Agus, R. *Sartono*. *2010*. Manajemen Keuangan Teori dan Aplikasi. Edisi. Keempat. Yogyakarta: BPFE
- Agustina, Lidya dan Christine Dwi K. S. 2010. Pengaruh Participation Budgeting, Information Asimetry, dan Job Relevant Information Terhadap Budget Slack pada Institusi Pendidikan. Jurnal Akuntansi. Volume 2. Nomor 2. Hal : 101-121
- Analisa, Yangs (2011). Pengaruh Ukuran Perusahaan, Leverage, Prifitabilitas Dan Kebijakan Dividen Terhadap Nilai Perusahaan. Skripsi Universitas Diponegoro Semarang 2011.
- Andriyani, Lusiana Noor. 2014. "Analisis Kegunaan Rasio-Rasio Keuangan Dalam Memprediksi Perubahan Laba (Studi Empiris: Pada Perusahaan Perbankan Yang Terdaftar Di BEI)". Skripsi. Semarang: Universitas Diponegoro.
- Bambang *Riyanto*. *2010*. Dasar-Dasar Pembelanjaan Perusahaan, ed. 4, BPFE-. YOGYAKARTA
- Brigham, E.F and Gapenski. 1994. Financial Management: Theory & Practice. Orlando: the Drydeen Press.
- Brigham, Eugene F dan Houston. 2006. Fundamental of FinancialManagement: Dasar-Dasar Manajemen Keuangan. Edisi 10. Jakarta: Salemba Empat.
- Budi *Rahardjo*, *2009*, Laporan Keuangan Perusahaan, Edisi Kedua, Penerbit. Gadjah Mada University Press, Yogyakarta
- Dallas,George.2004. Governance and Risk: Analytical Hand Books for Investors, Managers, Directorsand Stakeholders, p.21. Standardand Poor. Governance Services, Mc.Graw Hill. NewYork.
- Dermawan, *Sjahrial*, *2008*. Manajemen Keuangan Lanjutan, Edisi Kedua, Mitra. Wacana Media, Jakarta
- Fakhruddin dan Sopian Hadianto. 2001. Perangkat dan Model Analisis Investasi di Pasar Modal. Buku satu. Elex Media Komputindo. Jakarta.
- Friend, I., and J. Hasbrouck, 1988. Determinants of Capital Structure. Research in Finance, Vol. 7, pp. 1-19.
- Harahap, Sofyan Syafri. 2004. Analisis Kritis atas Laporan Keuangan. Jakarta: Rajawali Pers.
- Horne James C. Van dan John M.Wachowicz. 2010. Prinsip–Prinsip Manajemen Keuangan. alih bahasa Dewi Fitriasari dan Deny A.Kwary. Jakarta: Salemba Empat.
- Jensen, Michael C. dan Meckling. William H., 1976, "Thery of The Firm: Managerial Behavior, Agency Cost, and Ownership Structure", Jurnal of Financial Economics, Vol. 3, No. 4, October pp. 305-360.
- Jonathan Sarwono. (2010).Pintar Menulis Karya Ilmiah-Kunci Sukses dalam Menulis Ilmiah. Andi:Yogyakarta
- Modigliani, F & Miller, M.H. 1958. The Cost of Capital, Corporation Finance and The Theory of Investment. The American Economic Review. 13(3): 261- 297.
- Myers, S. c., 1984, "Capital Structure Puzzle", Journal of Finance, 39 (3), July, pp 575-592.
- Siti Kurnia Rahayu dan Ely Suhayati,2010. Perpajakan Indonesia: Teori dan Teknis Perhitungan, Yogyakarta : Graha Ilmu.
- Subramanyam dan John J. Wild. 2011. Analisis Laporan Keuangan. Jakarta: Salemba Empat.
- Sudarma, Made, 2003, Pengaruh Struktur Kepemilikan saham, Faktor Intern, Faktor Ekstern terhadap Struktur Modal dan Nilai Perusahaaan, Disertasi program Pasca sarjana Universitas Brawijaya malang.
- Suharli, Michell, 2006. Akuntansi untuk Bisnis Jasa dan Dagang, Edisi Pertama, Graha Ilmu, Yogyakarta

******