

## TESTING OF PECKING ORDER THEORY THROUGH THE RELATIONSHIP: EARNINGS, CAPITAL STRUCTURE, DIVIDEND POLICY, AND FIRM 'S VALUE

Harmono

Jurusan Akuntansi Fakultas Ekonomi Universitas Merdeka Malang  
Jl. Terusan Raya Dieng No.62-64 Malang, 65146.

### *Abstracts*

*This study aimed to test the pecking order theory through its correlation among earnings dimension, capital structure, dividend policy and firm's value perspective. By loading the correlation between dimension one to another, it indicated that management behavior tended to retained earnings accumulation or to debt collection in financing the operation of the firm. The pecking order theory were tested when the management behavior tended to retained earnings in accumulating sources of the fund equity rather than borrowing liabilities from creditors. Therefore, rationally if the capital structure was optimum, management tended to external financing until any trade off between earnings and debt financing. Based on the testing hypothesis, it indicated that the role of capital structure dimension had significance as intervening variable between earnings dimension and firm's value. On the other hand, the dividend policy had no significance to become intervening variable. Empirically, it could be concluded that the management behavior in Indonesia tended to leverage rather than retained earnings accumulation in supporting the pecking order theory. Furthermore, the variable had the role to differentiate the characteristic of industries represented by the capital structure dimension, especially, debt to assets and debt to equity ratio.*

**Key words:** *pecking order theory, earnings, capital structure, dividend policy, firm's value*

Testing of pecking order theory has examined in some countries and many researchers have developed the variety models. For example, Myers the author has developed the pecking order theory in 1984, and it has been followed by the next writers. On the other hand, the first idea of pecking order theory is derived from the optimum capital structure have developed by Modigliani & Miler (1958) and Durand (1959). By using both reference, we develop the model with construct based on this theories in this case will include capital struc-

ture and dividend policy as intervening variable between financial performance and firm value. Beside based on pecking order theory and optimum capital structure we also to construct the model with inspire the agency theory. The logically in the agency theory indicate interaction among management behavior as agent, creditors and investors as principle. By using its interaction can develop the construct of this integrated model. In this case, we will test the effect of financial performance on capital structure and dividend policy

---

Korespondensi dengan Penulis:

**Harmono:** Telp. + 62 341 568 395 Ext.546

E-mail: [harmono\\_ptigasep@yahoo.co.id](mailto:harmono_ptigasep@yahoo.co.id)

as intervening variables and on firm's value as dependence variables.

According to Frank & Goyal (2003), it is stated that the pecking order theory has been tested in the corporate leverage on a broad cross-section of publicly traded American firms from 1971 to 1998. In contrast to the pecking order theory, the net equity issues track in the financing deficit is more closely than the net debt issues. While in the large firms which exhibit some aspects of pecking order behavior, the evidence is not robust to the inclusion of conventional leverage factors, or to the analysis of evidence from 1990s. Financing firm's deficits is lack important in explaining net debt issues over time for firms of all sizes. By following to the finding of previous research, we can develop the model will be tested which combine between pecking order theory and the optimum capital structure.

Furthermore, because of pecking order theory is not robust yet, this model will replicate by developing integrated model. Where, some variables in each dimension i.e., dimension earnings consist of earnings after taxes (EAT), operating profit margin (OPM), earnings per share (EPS), return on assets (ROA), return on equity (ROE), and net profit margin (NPM). The next it includes in the dividend policy dimension; retained earnings (RE), dividend paid (DP), and dividend payout ratio (DPR). The dimension capital structure uses debt to assets ratio (DAR) and debt to equity ratio (DER), meanwhile, the dimension firm's value uses price earnings ratio (PER), price to book value (PBV) and closing price (CP). Through the developing research model, it is hoped that it can describe more reasoning about the pecking order theory, especially, in Indonesia.

The pecking order theory was the first theory suggested by Donaldson in 1961 and it was modified by Myers and Majluf in 1984. It states that companies should prioritize their sources of internal financing according to their cost of financ-

ing, prefer to raise equity as a financing means of last resort. Hence, internal funds are used first, and when it is depleted, the debt is issued, but when it is not sensible to issue any more debt, the equity is issued. The mean idea of this theory can illustrate that the pecking order behavior tend to internal financing with earnings accumulation. The pecking order theory starts with the asymmetric information as managers know more about their company's prospects, risks and value than outside investors. Asymmetric information affects the choice not only between internal and external financing but also between the issue of debt and equity. It is logically based on this argumentation in asymmetric information can develop the model with test between pecking order theory and optimum capital structure spirit.

The intercorrelation at principal agent model is able to show that interaction between external demand side in the financial and capital market they are creditors and investors as principal with the board of director as agent. Dealing with principal agent model, it is able to describe that, when the stock price is over-valued the issue of equity would be favored and the opposite when the stock price is under-valued the issue of debt would be favored. For exactly, the principal will evaluate to agent performance through the fundamental information like financial and non-financial performance to make decision in invest their capital. Usually, it interaction will appear the asymmetry information. In this case, the management behavior will tend to conduct earning management or income smoothing. Therefore, the principal must be more carefully in to make investment decision. Based on the asymmetric model, it can be adapted in developing this research model as there are relationship among earnings dimension, capital structure and firm's value perspective.

Furthermore, the tests of the pecking order theory have not been able to show that this theory is the first-order importance in determining a

firm's capital structure. However, several authors have found that there are instances where it is a good approximation of reality. By having the evident of pecking order theory test, it will know how the management behavior is looking of some situation. For instance, the management tends to apply internal financing with earnings or debt issued.

This study will develop based on the Brealey (2008), and Fama model (2002) in this case, it will not only review about the correlation between retained earnings and dividend policy but also analyze its extent with the firm value perspective. Some the previous research findings, it have indicated that, the financial fundamental performance will be analyzed by stakeholders in the market to predict the trading of stock. For accurately in the predicting pecking order theory and optimum capital structure, it can be described by their correlation among earnings and debt to firm's value.

### **Profitability and Debt Ratios**

According to Brealey (2008), the pecking order theory explains the contrary relationship between profitability and debt ratios. The some aspects in which management preference in the financing of the firm it can illustrate with some aspect: 1) Firms prefer internal financing it is favorable is reviewed by cost of capital or expenses side; 2) They adapt their target dividend payout ratio to open their investment opportunities, while trying to avoid sudden changes in dividends. It mean to invite investors to invest of stock; 3) In normally, the dividend policy is depend on the fluctuations of profits and investment opportunities mean that internally the generated cash flow to support the financing of the firm. 4) The management will conduct to external financing, in this case, the priority of the firms is issue the safest security first and then they start with debt or possibly hybrid securities such as convertible bonds.

In fact, when the condition of economic is instable and crisis, it indicates that too many companies are financing with external funding. Especially, in Indonesia the average total debt to assets ratio for manufacturing industry is about 55%, and it is higher than in Singapore, that is, 48% and US which is just 42%. It seemed that in Indonesia the industry does not support the pecking order theory and tends to the external financing.

Chen (2009) has stated that the pecking order theory of capital structure is one of the most influential theories of corporate finance. The purpose of this study is to explore the most important factors on a firm's capital structure by pecking-order theory. Hierarchically the regression is used as the analysis model. This study examines the determinants of debt decisions for 305 Taiwan electronic companies that are quoted on the Taiwan Stock Exchange of 2009. The results indicate that the determinants of capital structure are profitability and growth rate. The profitability negatively effects on capital structure. It implies that firms prefer to use their earnings to finance business activities and thus use less debt capital. This condition is consistence with the finding research of Brealey (2008) it has stated that, the management behavior tend to internal rather than external financing. It means support to the pecking order theory.

The level of the growth rate is positively affects to capital structure. The greater growth opportunity will have more capital structure to finance the growth. Size is a moderator variable in this study. Size of firms moderates the effects of tax rate on capital structure. Large firms appear to take advantage of the tax deductibility of debt. The findings are important for management and investors. Based on this finding research it shows that the pecking order theory in Taiwan is relevant to consider the financing of the firm.

On the other hand, the capital market research is supposed to give empirical evident that

can be useful to describe the correlation and effect between supply and demand and also to explain the firm's value concept. In the next proposition, inter-correlation among management, investors and creditors had been explained by the asymmetric theory. Therefore, in developing this model, it will be analyzed by using firm's value for supporting the optimum capital structure. If the capital structure has significance in influencing on firm's value, it can be concluded that it has optimum capital structure, and then it can be a hypothesis that the pecking order theory has tradeoff in financing the capital structure.

Arifin (2007) has tested asymmetric information by investigating the influence of asymmetric information to the effectiveness agency problem-reduction mechanisms in Indonesian Companies. By using the sampling frame criteria are manufacturing companies in Jakarta Stock Exchange in the period of 2001-2004. The results can indicate that asymmetric information has influence of dividend mechanism in reducing agency problem by the assumption that the level of asymmetric information is high conflict. On the other hand, this research also finds out that the debt mechanism and the independent board of direction mechanism have not any significant in reducing agency problem whether the condition asymmetric information is high or low. Concerning with this agency problem, this idea is relevant to support in developing model especially for exploring some dimensions and logically relationship among variables in building in the research model.

Related in agency problem, Sunarto (2009) has studied it in Indonesia to examine agency problem by developing the case among the management motives in reporting earning based on the agency theory. The main idea of this research is similar with Arifin (2007) which investigates the agency problem. There are two motives underlying management in reporting earning. When the motive fully reflects how to meet principles maxi-

mum wealth, it is called the signaling motive. By opportunistic motives, the management conducts the earning management in reporting the earning, meanwhile, by signaling motive, the management efforts to apply the accounting method, or published of the others more interest information in order to respond consequently by external side.

Based on the pecking order theory by Myers & Majluf (1984), there are three sources of funding available to firms, namely, retained earnings, debt, and equity. Dealing with agency problem, it can be illustrated through some of the adverse selection problem there are, the retained earnings have no adverse selection problem. The equity is subjected to the serious adverse selection problems. On the other hand, the debt has only a minor adverse selection problem. From the outside investor's point of view, the equity seems strictly riskier than the debt. Both the equity and the debt have an adverse selection risk problem. Therefore, an outside investor will demand a higher rate of return on equity than on the debt. From the perspective of the inside of the firm, the retained earnings seem to be the better source of funds than the debt. Unfortunately, it is suit with the point of view by Sunarto (2009) and Arifin (2007) about agency problem concept.

Moreover, the debt is a better deal than equity financing, when there is an inadequate amount of retained earnings, then the debt financing will be used. Based on the main idea of Myers (1984), Sunarto (2009) and Arifin (2007), it is very important to support the construct of the logical concept and then turn on the hypothesis in this research.

According to Frank & Goyal (2003), in reality, the company operations and the associated accounting structures are more complex than the standard pecking order representation. This implies that in order to test the pecking order theory, some forms of aggregation must be used in order to develop the other dimensions so that it may get empirical evident to support the pecking or-

der theory. This study is used the firm's value dimension to investigate the hypotheses of trade off theory between pecking order theory and optimum capital structure. By using relationship between earnings dimension and firm's value, and the capital structure and dividend policy as intervening or moderating variables it will be get the integrated model to illustrate the agency theory.

Based on review of the previous research, the pecking order is offered as a highly parsimonious empirical model of corporate leverage which is descriptively reasonable. The pecking order theory derives much of its influence on a view that it fits naturally with a number of facts about how companies use external finance. Theoretically, the internal financing is more useful than the external financing. In fact, based on the data condition in Indonesia is tends to the debt financing in fulfill the operating of the firm. Therefore, the spirit of this research will test, what the majority management behavior in Indonesia tends to pecking order theory or optimum capital structure.

According to Myers (2001) reports, the external finance covers only a small proportion of capital formation. When the equity issues are minor respond so with the external finance being debt. In the depleted situation, the external finance is much more significant, it is usually recognized. It often exceeds investments. Equity finance is a significant in influence component of the external finance. On average, the net equity issues commonly exceed the net debt issues. Particularly striking is the fact that net equity issues make the track of the financing deficit become much more closely than do net debt issues. In Indonesian Company, the average of capital structure which indicates the debt to assets is about 51% for manufacturing industry, in Singapore 48%, and in America is 42%.

Furthermore, Shyam-Sunder & Myers (1999) focus on a regression test of the pecking order. In this test, the financing formation is constructed from an aggregation of dividends, investment, and

the changing in working capital and internal cash flows. If the pecking order theory is correct, then the construction of the financing deficit variable will be a justified aggregation. Under the pecking order, each component of financing deficit should have the predicted currency rate which impact on the corporate debt. The evidence, however, does not support this hypothesis. Even if a theory is not strictly correct when it is compared to the other theories, it might still do a better job of organizing the available evidence. The pecking order is a competitor to other mainstream empirical models of corporate leverage. The difference of this model from the developing model is in the firm value dimension. However, this research is not included in the currency rate. On the others hand, the developing model will construct with add the intervening variable between financial performance and fir's value, they are capital structure and dividend policy.

Although the theoretical continuing has developed in many past years, our understanding of the relationship between the theories and practical corporate financing decisions remains incomplete. Therefore, this paper aims to supply the comprehensive material for better understanding of the capital structure versus pecking order theory. By develop the some variables include in the model we will get empirical evidence especially for Indonesian condition of management behavior in financing of the firm.

Sen & Oruc (2008) had conducted testing of pecking order theory by examining the relation between annual leverage ratio of the mentioned firms in period 1993-2007 and total asset profitability, current rate, asset structure, sales size and firm growth. The analysis revealed that between leverage ratio and total asset profitability, current rate and sales amount, there is a negative relation which corresponds well to the explanations of pecking order theory. While no meaningful relation was detected from the firm growth, a nega-

tive relation was found out between asset structure and leverage level. Variables in the model not included in firm's value dimension. Therefore this research not describes trade off or optimum capital structure. For completely in integrated model of this research will combine with firm's value dimension in which variables is used can be operationalized with price earnings ratio and price to book value, and closing price.

Based on the argumentation of some finding out previous research, it can be construct of developing model which considering in pecking order theory, optimum capital structure theory, and asymmetry information theory or agency theory. When the management tend to accumulate the internal financing that, relevance with the pecking order theory, and the others hand, when the management policy tend to get external financing with debt issues, its mean tend to optimum capital structure or stressing leverage of the firm. Therefore, based on logical empiric can support in building research model. In this case, whether the management preferences in earnings maintenance tend to retained earnings or dividend pay of ratio, and to examine of optimum capital structure, it can be expose by testing the effects of earnings dimension on capital structure and the capital structure on firm's value. Furthermore, can be hypothesized that the roles of capital structure and dividend policy are intervening or moderating

variables between earnings dimension to firm's value dimension. With the logical framework and derived by theories, the research model can be illustrated in Figure 1.

**HYPOTHESIS**

Based on theoretical construct and relationship among dimension can be formulated of research hypothesis as follow;

- H<sub>1</sub>: Variables earnings after taxes, operating profit margin, earnings per share, return on asset, return on equity, and net profit margin have contribution in earnings dimension
- H<sub>2</sub>: Variables debt to asset ratio and debt to equity ratio have contribution in capital structure dimension
- H<sub>3</sub>: Variables retained earnings, dividend, and dividend payout ratio have contribution in dividend policy dimension.
- H<sub>4</sub>: Variables price earnings ratios, price to book value, and closing price have contribution in firm's value dimension
- H<sub>5</sub>: Earnings dimension have significance in influencing on capital structure and dividend policy
- H<sub>6</sub>: Earnings Dimension, capital structure, and dividend policy have significance in influencing on firm's value, in here the role of capital

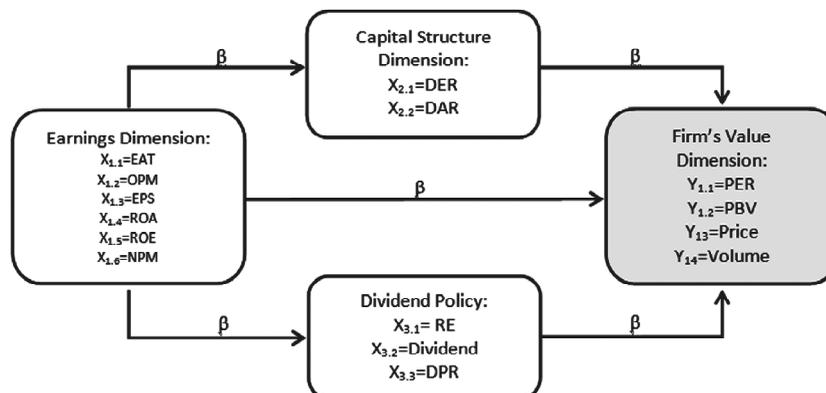


Figure 1. The Theoretical Framework

structure and dividend policy are as intervening variables

## METHOD

This research design use descriptive and causality analysis with structural equation model to investigate about interconnection among variables i.e., earning dimension which covers the earnings after taxes, earnings per share, return on assets, return on equity, operating profit margin and the net profit margin. In addition, the dividend policy dimension consists of retained earnings, dividend paid and dividend payout ratio. And then for the dimension capital structure consists of debt to assets, debt to equity ratio and total debt, and the firm's value dimension uses price earnings ratio, price to book value, closing price and trading volume activity.

The sampling frame uses some kinds of industry i.e., financial industry, trade and service, manufacturing and miscellaneous industries which have been published in Indonesia Stock Exchange in the investigation period of 2007–2011, with the criteria that it has dividend paid and positive earnings. Besides that, it will analyze about the correlation among dimensions, and it also wants to analyze the variable that can differentiate the industry characteristic.

The analysis techniques use descriptive analysis and structural equation model by using Amos Software. In order to get the empirical evident which is able to test the research hypotheses, so the formula and notation of each variables are used as follows:

$$\begin{aligned} \text{Earnings Dimension} = & \alpha + \beta \text{ EAT} + \beta \text{ OPM} + \beta \text{ EPS} \\ & + \beta \text{ ROA} + \beta \text{ ROE} + \beta \text{ NPM} \\ & + e_i \end{aligned}$$

$X_1$  : Earnings Dimension (ED)

$X_{1,1}$  : Earnings After Taxes (EAT)

$X_{1,2}$  : Operating Profit Margin (OPM)

$X_{1,3}$  : Earnings Per Share (EPS)

$X_{1,4}$  : Return On Assets (ROA)

$X_{1,5}$  : Return on Equity (ROE)

$X_{1,6}$  : Net Profit Margin (NPM)

$$\text{Capital Structure} = \alpha + \beta \text{ DAR} + \beta \text{ DER} + e_i$$

$X_2$  : Capital Structure

$X_{2,1}$  : Debt To Assets Ratio (DAR)

$X_{2,2}$  : Debt to Equity Ratio (DER)

$X_{2,3}$  : Total Debt (Debts)

$$\text{Dividend Policy} = \alpha + \beta \text{ RE} + \beta \text{ DP} + \beta \text{ DPR} + e_i$$

$X_3$  : Dividend Policy

$X_{3,1}$  : Retained Earnings (RE)

$X_{3,2}$  : Dividend Paid (DP)

$X_{3,3}$  : Dividend Payout Ratio (DER)

$$\text{Firm's Value} = \alpha + \beta \text{ PER} + \beta \text{ PBV} + \beta \text{ CP} + e_i$$

$Y_1$  : Firm's Value (FV)

$Y_{1,1}$  : Price Earnings Ratio (PER)

$Y_{1,2}$  : Price to Book Value (PBV)

$Y_{1,3}$  : Closing Price (CP)

$Y_{1,4}$  : Trading Volume (TV)

## FINDINGS

### Empirical Tests

Based on the statistic descriptive, it shows that the data fluctuation of each variable indicate the management behavior in financing of the firm. By using 45 firms as the sample, it shows that the average debt, retained earnings, and dividend paid are able to indicate the tendency of the management behavior to the external financing from debt, graphically, it is more attractive than retained earnings and earnings growth. Therefore, the data

fluctuation does not support the Pecking Order Theory Model, on the contrary, it seems to support the optimum capital structure. In fact, in order to give the empirical evident, it will conduct to test of hypothesis by using the inferential statistic with structural equation model based on software Amos Version 20 for windows. The simple

illustration of each variable can be shown through the data fluctuation at Figure 2.

On the other hand, the firm's value that indicates closing price tends to get increased and in the year of 2010 and 2011, it tends to decrease. The next data is the price earnings ratio and price to book value years to years is decreasing, mean-

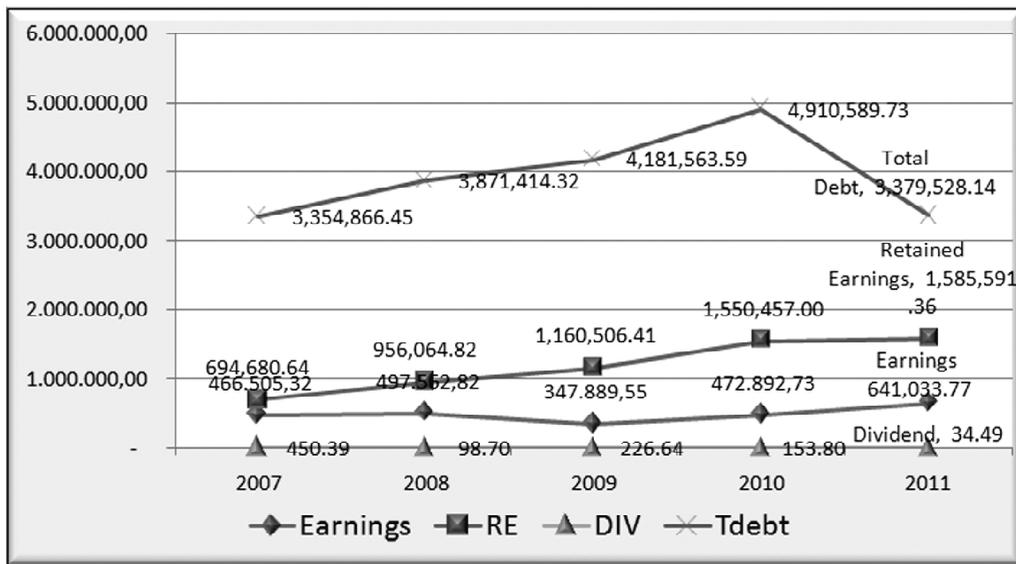


Figure 2. Trend of Average Earnings, Dividend, Retained Earnings, and Total Debt (million) in Period of 2007-2011 for 45 of Firms as Sample Classified in Financial Industry, Trade and Service, Manufacturing and Miscellaneous Industries Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

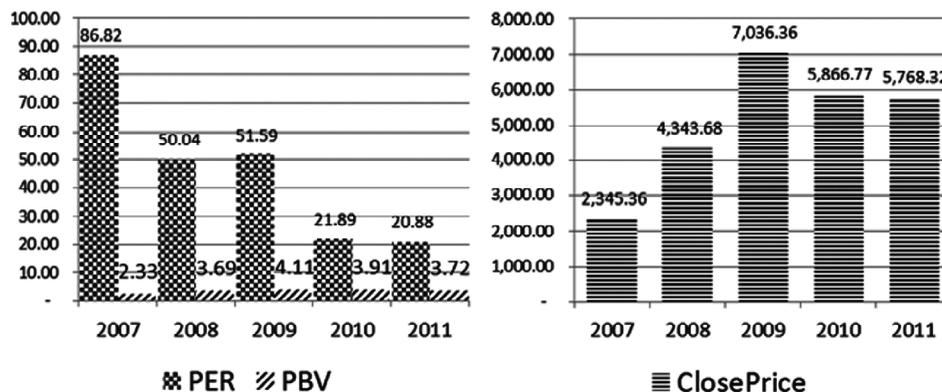
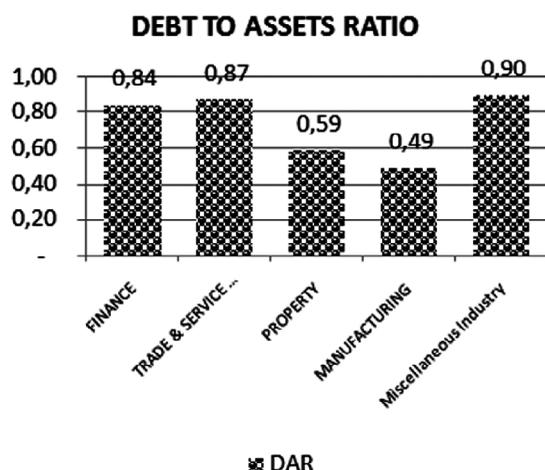


Figure 3. Trend of Average Debt to Asset Ratio, in Period of 2007-2011 for 45 of Firms as Sample Classified in Financial Industry, Trade and Service, Manufacturing and Miscellaneous Industries Proportionally Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

while, because of the price is divided by earnings and book value it means that the earning tends to increase and the book value too. In detail, it is shown by Figure 3.



**Figure 4.** Trend of Average Price earnings ratio, Price to Book Value Closing Price (million) in Period of 2007-2011 for 45 of Firms as Sample Classified in Financial Industry, Trade and Service, Manufacturing and Miscellaneous Industries

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

Descriptively, to differentiate the variable of characteristic industries use capital structure dimension which is represented by debt to asset

ratio and debt to equity ratio. The other variables such as some variables classified in earnings dimension, dividend policy and firm’s value dimension have no significant as the differentiate variables of characteristic industries. Clearly it can be seen at Figure 4

By comparing the mean of using one sample test, it will indicate the description about the difference some kind of industries through each variable analyzed. In fact, the variable which can differentiate among industries is capital structure dimension represented by debt to assets ratio and debt to equity ratio. Moreover, the role of other variables have no significance as the differentiation variables for describing the industrial characteristic. It means that in this research although the sample is from some kinds of industries it is homogenously, it can fulfill to generalize the research conclusion. Testing by comparing the mean of some variables can be seen in Table 1.

Before interpreting of the relationship among variables in research model, first it must test the fit model. In this case, the test is done through some criteria in structural equation model assumption which should fulfill the structural equation model. In general, if one of some values has suit in goodness of fit indexes cut off value there will be;  $\chi^2$ -Chi Square, CMIN, AGFI, TLI, CFI, and RMSEA. The model can be used to interpret the

**Table 1.** Compare Mean Used One Sample T-test

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
PER	2.243	4	0.088	38.88000	-9.2471	87.0071
CPRICE	1.313	4	0.259	1,811.57200	-2,017.8478	5,640.9918
VOLUME	2.235	4	0.089	896.55800	-216.9671	2,010.0831
EARNINGS	1.440	4	0.223	129,978.75400	-120,674.6761	38,0632.1841
EPS	1.487	4	0.211	195.67400	-169.6478	560.9958
RE	1.783	4	0.149	203,245.94200	-113,263.8847	519,755.7687
DPR	1.795	4	0.147	31.29400	-17.1207	79.7087
DAR	8.901	4	0.001	0.73800	0.5078	0.9682
DER	2.699	4	0.054	0.14600	-0.0042	0.2962

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

finding of the research. In detail some of criteria can be illustrated in Table 2, Table 3 and Table 4.

**Table 2.** Measurement Criteria for Goodness of Fit Indexes Model

Description	Criteria Score	Testing Value
$\chi^2$ -Chi Square	$\geq 0.05$ (Expected)	1 / Fit
CMIN/ DF	$\leq 2.00$	0.087 / Fit
AGFI	$\geq 0.90$	Un identified / Fit
TLI	$\geq 0.95$	1.017 / Fit
CFI	$\geq 0.95$	1.000/ Fit
RMSEA	$\leq 0.08$	Un identified / Fit

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

Base on the criteria of goodness of fit indexes model there are  $\chi^2$ -Chi Square resulting value  $1 \geq 0.05$ , value of CMIN/ DF  $0.087 \leq 2$ , TLI and CFI value are 1.017 and  $1 \geq 0.95$ . When one of the criteria has filled, it means that the model is fit, in detail look at Table 2 and Table 3 above. For the next analysis chronologically, it can be described as following stage.

The first, description for earnings dimension based on the testing hypothesis can indicate that the variables representing of earnings dimension are just two variables, they are, ( $X_{1,1}$ ) earnings after taxes (EAT) and ( $X_{1,3}$ ) earnings per share (EPS) but the other variables like operating profit mar-

gin (OPM), return on assets (ROA), return on equity (ROE), and net profit margin (NPM) have no significance in contributing on earnings dimension.

The second, capital structure dimension based on the result of testing hypothesis can indicate that the variables have significance in contributing on capital structure dimension. It consists of two variables, they are, ( $X_{2,1}$ ) debt to assets ratio (DAR) and ( $X_{2,3}$ ) total debt (debts)

The third, dividend policy dimension based on the result of testing hypothesis can indicate that the variables have significance in contributing of dividend policy is just one variable, that is, ( $X_{3,3}$ ) dividend payout ratio (DPR). Furthermore, the other variables in this construct like retained earnings and dividend paid have no significance in contributing on dividend policy dimension.

The fourth, firm's value dimension based on the result of testing hypothesis can indicate that the variables have significance in contributing on firm's value dimension are three variables, they are, ( $Y_{1,1}$ ) price earnings ratio (PER), ( $Y_{1,3}$ ) closing price (CP) and ( $Y_{1,4}$ ) trading volume (TV). In this case, just the variable of price to book value has no significance in contributing on firm's value dimension.

**Table 3.** Model Fit Summary CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	0.087	1	0.768	0.087
Saturated model	9	0.000	0		
Independence model	3	54.170	6	0.000	9.028

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

**Table 4.** Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	0.998	0.990	1.017	1.114	1.000
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

The next, to describe of direct effect or relationship among dimension in the model, and to answer hypothesis  $H_5$ : Earnings dimension has significance in influencing on capital structure and dividend policy. The result can indicate that the earnings dimension has significance in direct effect on capital structure dimension with the coefficient regression magnitude -0,272 but it has no significance on dividend policy.

The last hypothesis has stated that  $H_6$ : earnings dimension, capital structure, and dividend policy have significance in influencing on firm's value. In this case, the role of capital structure and dividend policy are as the intervening variables. The result of testing hypothesis for the whole models can be described by using the path analysis, they are, earnings dimension ( $X_1$ ), capital structure ( $X_2$ ) and dividend policy ( $X_3$ ) have significance in the direct effect to firm's value. However, just earnings dimension ( $X_1$ ) has no significance on capital structure ( $X_2$ ). The next interpretation in knowing the intervening hypothesis can be described by using the path analysis with standardized coefficient. The path one relationship between earnings dimension to firm's value through capital structure is significant. In this path, it can be accounted by using the total effect; the magnitude effect of  $X_1$  to  $X_2$  is -0.272;  $X_2$  to  $Y_1$  is 19.478, and  $X_1$

to  $Y_1$  equals to 6.308, by this coefficient it can indicate the role of capital structure variable as intervening variable between earning on firm's value by the magnitude coefficient regression is -0.272. By multiplying -0.272 and 19.478 it equals as -5.928. The result is less than the direct effect between  $X_1$  on  $Y_1$  which equals to 6.308. Therefore, the conclusion in this path capital structure variable has the role as intervening variable. And then the magnitude of total effect  $-0.272 \times 19.478 + 6.308$  equals to 11.606. In this case, the meaning minus in this context shows just the relationship signal.

On the other hand, the path of relationship among earnings dimension, dividend policy and firm's value dimension indicates zero mediation. The argumentation of this empirical result, that is, the relationship between earning dimension has no significance on dividend policy, although the dividend policy has significance on firm's value. Therefore, the conclusion of hypothesis  $H_6$ : Earnings Dimension, capital structure, and dividend policy have significance in influencing on firm's value. In this case, the role of capital structure and dividend policy is as the intervening variables only the capital structure has significant role as the intervening in this model although it has weak intervening variable.

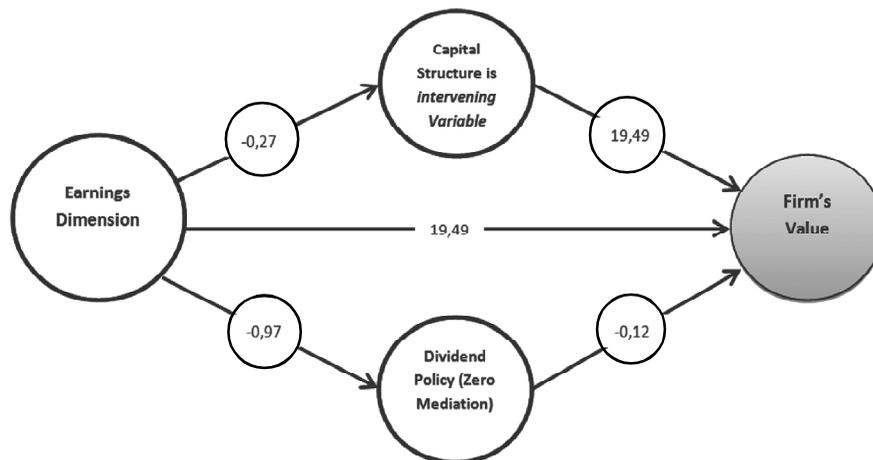


Figure 5. Path Diagram Integrated Model about the Effect of Earnings Dimension, Capital Structure, and Dividend Policy on Firm's Value where the Capital Structure has Significant Role as the Intervening Variable.

The conclusion of the result finding of testing hypothesis shows that in Indonesian company tends to use the external fund in financing operation rather than the retained earnings on equity. In other word, the empirical study has no support on pecking order theory, however, it supports on optimum capital structure or firm's leverage.

All of the descriptions in this model can be simple illustrated through the following Figure 5 and the result of statistic descriptive completely can be seen on some Tables.

Statistic descriptive by using structural equation model can indicate the correlation and the direct effect among dimension and variables in which it will be stated in the following tables. As the empirical evident, to support the analysis or interpretation empirical data which suits the conceptual frame work and the formulated research

hypothesis. The detail of the regression weights shown on Table 5.

**DISCUSSION**

When this finding research is compared to the previous research by Donaldson in 1961 modified by Myers and Majluf in 1984, the result shows inconsistency. In this case, they state that companies prioritize their sources of financing from internal financing to equity according to the cost of financing, preferring to raise equity as a financing means of last resort. The tendency of operational financing is by using internal funds. In other words, it can be said that it supports the pecking order theory. In this case, when there is a depleted, the debt is issued, but when it is not sensible to issue any more debt, the equity is issued.

**Table 5.** Standardized Regression Weights

		Estimate	S.E.	C.R.	P	Label
X <sub>2</sub>	<--- X <sub>1</sub>	-0.272	0.094	-2.882	0.004	par_14
X <sub>3</sub>	<--- X <sub>1</sub>	-0.972	1.963	-0.495	0.621	par_17
Y <sub>1</sub>	<--- X <sub>1</sub>	6.308	3.167	1.992	0.046	par_21
Y <sub>1</sub>	<--- X <sub>2</sub>	19.478	8.083	2.410	0.016	par_22
Y <sub>1</sub>	<--- X <sub>3</sub>	-0.121	0.055	-2.185	0.029	par_23
X <sub>16</sub>	<--- X <sub>1</sub>	1.000				
X <sub>15</sub>	<--- X <sub>1</sub>	45.903	12.425	3.694	***	par_1
X <sub>14</sub>	<--- X <sub>1</sub>	130.081	26.930	4.830	***	par_2
X <sub>13</sub>	<--- X <sub>1</sub>	1.989.359	699.725	2.843	0.004	par_3
X <sub>12</sub>	<--- X <sub>1</sub>	-75.904	22.595	-3.359	***	par_4
X <sub>11</sub>	<--- X <sub>1</sub>	-1.444.301.512	675,597.588	-2.138	0.033	par_5
X <sub>21</sub>	<--- X <sub>2</sub>	1.000				
X <sub>22</sub>	<--- X <sub>2</sub>	9.386	1.073	8.747	***	par_12
X <sub>23</sub>	<--- X <sub>2</sub>	8244215.414	2,618,557.067	3.148	0.002	par_13
X <sub>33</sub>	<--- X <sub>3</sub>	1.000				
X <sub>32</sub>	<--- X <sub>3</sub>	143.193	225.460	0.635	0.525	par_15
X <sub>31</sub>	<--- X <sub>3</sub>	-4154.347	5,194.581	-0.800	0.424	par_16
Y <sub>11</sub>	<--- Y <sub>1</sub>	1.000				
Y <sub>12</sub>	<--- Y <sub>1</sub>	-0.009	0.021	-0.404	0.686	par_18
Y <sub>13</sub>	<--- Y <sub>1</sub>	-1.044.472	438.036	-2.384	0.017	par_19
Y <sub>14</sub>	<--- Y <sub>1</sub>	-264.495	132.370	-1.998	0.046	par_20

Sources: Secondary data, Indonesian Stock Exchange in period of 2007-2011

Meanwhile, the result of this research shows the tendency of the company financing by using external funds. By comparing to the previous research, the pecking order theory in this case is not robust. In addition, the condition of management behavior in Indonesia tends to the debt issued rather than the equity or retained earnings in financing of the firm.

By this empirical evident and supported by the descriptive data preview, it can be showed that the firm's majority in Indonesia is more attractive debt in financing operating business. It may be caused by the Indonesian crisis condition in 1997 which has many effects on the firm's operation up to now. As the result, many firms are deficit and constraint to debt financing. In the normal condition, it is suggested that it will be suitable to apply the pecking order theory.

According to Frank & Goyal (2003) theoretically the internal financing is more useful than the external financing. On the other hand, in reality, every company has any debt to fulfill the financing on operation of the firm. Frank's preposition is proper with this empirical research. This implies that in order to test the pecking order theory, some forms of aggregation must be used. The point of view this suggestion can be developed to the other dimensions in order to get the empirical evidence to support the pecking order theory. This study is using the firm's value dimension to investigate the hypotheses of trade off theory.

## CONCLUSION AND SUGGESTION

### Conclusion

The variables which represent of earnings dimension based on the testing hypothesis show that just two variables, they are, earnings after taxes (EAT) and earnings per share (EPS), however, the other variables included in earnings dimension namely operating profit margin (OPM), return on assets (ROA), return on equity (ROE), and net profit

margin (NPM) have no significance in contributing on earnings dimension.

The variables which represent the capital structure dimension based on the result of testing hypothesis from three variables show just two variables which have significance in contributing on capital structure dimension, they are, debt to assets ratio (DAR) and total debt (debts) for debt to equity ratio has no significant on representing capital structure dimension.

The variables were representing of dividend policy dimension, based on testing hypothesis just one variable that is dividend payout ratio. And the others variables in this construct like retained earnings and dividend paid have no significance in contributing on dividend policy dimension. Dealing with pecking order theory analysis, retained earning not supporting significant on pecking order theory.

The variables were representing of firm's value dimension, based on the result of testing hypothesis can be indicated that the variables have any significance in contributing on firm's value dimension are price earnings ratio (PER), closing price (CP) and trading volume (TV). Just price to book value have no significance in contributing on firm's value dimension.

Describing of direct effect or relationship among dimension in the model, to answer hypothesis have stated that earnings dimension have any significance in influencing on capital structure and dividend policy, the result can be indicated that earnings dimension have any significance in direct effect on capital structure dimension and have no significance on dividend policy.

The ending hypothesis have stated that earnings dimension, capital structure, and dividend policy have any significance in influencing on firm's value, in here the role of capital structure and dividend policy are as intervening variables. The result of testing hypothesis for hold model can be

describe with path analysis that is earnings dimension, capital structure and dividend policy have any significance in influencing on firm's value, just earnings dimension have no significant on dividend policy. Conclusion of empirical testing based on path analysis use standardized coefficient. The path one relationship between earnings dimension to firm's value through capital structure are significant. Therefore capital structure have any role as intervening variable, and path two relationship among earnings dimension, dividend policy and firm's value dimension indicating zero mediation. In here, relationship between earning dimension have no significant on dividend policy, although dividend policy have significant on firm's value.

Conclusion of founding out the result of testing hypothesis that in Indonesian company tends to external fund in financing operation then retained earnings or equity. In others word the empirical study has no supporting on pecking order theory, however support on optimum capital structure or firm's leverage.

### Suggestion

For the next research, it can be developed in various models and focused on specific industry in order to get special condition in testing of the pecking order theory. Based on this empirical research, it is suggested that, for the next research can be developed in the management motivation in financing of the firm in order to know why the company tends more to the external financing rather than retained earnings or equity.

For management, investors, creditors or other stakeholders, it should be careful in financing of firm's operation because if it is too much of the debt in financing of the firm, in the long run it will be cause higher cost or it may cause the bankruptcy of the firm. Based on the optimum capital structure for manufacturing industry, the limitation of debt to assets should not be more than 50%.

### REFERENCES

- Arifin, Z. 2007. Pengaruh Asymmetric Information terhadap Efektivitas Mekanisme Pengurang Masalah Keagenan. *Jurnal Kajian Bisnis dan Manajemen*, 9(2): 167-177.
- Brealey, R.A., Myers, S.C., & Allen, F. 2008. *Principles of Corporate Finance*. 9th Edition. New York: McGraw-Hill/ Irwin.
- Durand. 1959. The Search for Optimal Capital Structure. *Midland Corporate Finance Journal*, 1: 91-116.
- Chen, L.J 2009. How the Pecking-Order Theory Explain Capital Structure. Graduate School of Business and Operations Management. Chang Jung Christian University, Taiwan Shun-Yu Chen, Department of Business Administration, <http://www.jimsjournal.org>. (Diakses tanggal 3 Nopember 2012).
- Myers, S.C. & Majluf, N.S. 1984. Corporate Financing and Investment Decisions when Firms Have Information that Investors Do Not Have. *Journal of Financial Economics*, 13(2): 187-221.
- Myers, S.C. 1984. The Capital Structure Puzzle. *Journal of Finance*, 37: 575-592.
- Myers, C.S. 2001. Capital Structure. *The Journal of Economic Perspective*, 2: 81-102.
- Modigliani, F. & Miller, M. 1958. The Cost of Capital, Corporation Finance, and Theory of Investment. *American Economic Review*, 48: 261-97.
- Frank, M.Z. & Goyal, V.K. 2003. Testing the Pecking Order Theory of Capital Structure. *Journal of Financial Economics*, 67(2): 217-248.
- Fama, E., & French, K. 2002. Testing Trade Off and Pecking Order Predictions about Dividends and Debt. *Review of Financial Studies*, 15: 1-33.
- Sen, M. & Oruc, A. 2008. Testing of Pecking Order Theory in ISE (Istanbul Stock Exchange Market). *International Research Journal of Finance and Economics*, 21.
- Shyam-Sunder, L. & Myers, S.C. 1999. Testing Static Trade-off against Pecking Order Models of Capital Structure. *Journal of Financial Economics*, 51: 219-244.
- Sunarto. 2009. Teori Keagenan dan Manajemen Laba. *Kajian Akuntansi*, 1(1): 13-28.