

# Determinant Factor of Firm's Value on Manufacturing Company in Indonesian Stock Exchange

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**Abstract**—This study aims to analyze and provide empirical evidence that the independent variable Dividend Policy, Manager Share-Owned, Board Size and Profitability, both partially and simultaneously influence the Value of the Firm. Based on agency theory and the theory of dividend policy, in line with the phenomenon that increasing Composite Stock Price Index (IHSG) of the firm's manufacturing sector was still below the average stock index of all listed companies, and manufacturing companies that pay dividends are still below the average of all listed companies. That is a gap, because the firm's manufacturing sector is expected to have a strong financial performance, in order to make a major contribution to Gross Domestic Product (GDP) of Indonesia. This study uses a quantitative approach, with a sample of 110 companies listed on the Indonesian Stock Exchange (BEI) during the years 2009-2014, with a sample of all manufacturing companies (purposive sampling method). Then the data analysis done by statistical tests using multiple linear regression. The results showed variable declared Dividend Policy and Profitability significantly affect the Firm's Value, while variable Manager Share-Owned and Size of Board of Commissioners declared not affect the value of the Firm. However, Firm Value simultaneously influenced by all the independent variables. This finding is interesting, that the success of increasing the value of the firm depends on the firm's ability to optimally empower resources, as well as in implementing firm policies are already set, not by a factor of the incentive manager.

**Keywords**—Firm's Value, Dividend Policies, Manager Share-Owned, Board Size, Profitability, Manufacturing Company

## I. INTRODUCTION

Main goals of each firm is maximizing firm's value for the sake of shareholders wealth as stated by Bringham & Hoston (2010, 132) that maximizing a shareholders wealth in long term period is the main goals in financial management [1]. Firm's value optimization could be achieved by implementing a financial value where one financial decision and could influence other decision and could impact to firm's value. Weston and Copeland (1995:5) stated that financial management function consists of several important decision such as dividend decision, such decision could maximized a firm's value then shareholders wealth [2]. To gain the firm's goal, shareholders appointed firm's director to manage the firm. Separation of ownership management have conflict of

interest between owners and managers, such separation will bring a conflict of interest between owners and managers.

Shareholders, managers are parties who have a different interest of the firm. Shareholders tend to maximize the stock's value and encourage manager to act accordingly through management control. Board is a leader of firm who responsible to manage and control resources usage so that it would be appropriate and in line with firm's goal. In Indonesian firm, Board mean Board of commissioners and Board of director. It means that Board of commissioners would be doing the controlling to assure that management should be revealed to stakeholders, in that case investor trust level to the firm would be increased and it also would raise a firm's value. In concept of signaling theory, it is a positive signal from management that would give a big picture about firm's future based on profitability level, and would directly raise a firm's value which would be indicated by stock's price increased.

The ups and downs of stock's price in the share market is an interesting phenomenon in relation to the fluctuation of firm's value, not to mention manufacturing company. Manufacture sector have a good future in Indonesia, because its development could contribute to GDP of Indonesia. Manufacture sector as a high valued producer have a good financial performance, strategically importance, and have impact.

There is a stock's price phenomenon in a share market which is dynamically increasing in 5 years indicated by the movement of Stock Price Index (IHSG) in Indonesian Stock Exchange (BEI), starting 2009 until 2013. The number of companies registered an average of 544 companies, including manufacturing companies, indicate that the stock index of all listed companies on the Stock Exchange from 2009 to 2013 increased an average of 33 % and a development firm manufacturing sector registered an average of 136 companies currently experiencing significant progress, such developments look Stock Price Index of Manufacturing Sector from 2009 until 2013, the average rose 24.10%, but the average increase manufacturing Composite Index is still below the average stock index of all listed companies amounted to 33.00 %. (Source: ICMD in 2015, processed/www.idx.co.id).

Stock Price Index rise development of all listed companies listed on the Stock Exchange is not balanced with the development of the ability to pay dividends both issuers and the entire manufacturing sector. Average ability to pay dividends of all listed companies amounted to 39.49 %, while 60.51 % do not pay dividends. Likewise with the firm's ability to pay dividends manufacturing sector average of 33.51 %, while 66.49 % do not pay dividends (Source: ICMD in 2015 processed/www.idx.co.id). [3]

Based on these descriptions indicate that in terms of the growth of listed companies increased and the firm's ability to pay dividends is generally increased but not all companies paying dividends even if the dividend policy is an important aspect in the objective of maximizing the value of the firm.

In addition to those described above that some of the factors that may affect the value of the firm is a proxy for dividend policy DPR, Manager Share-Owned, Board of Commissioners Size and Profitability. Following the development of the manufacturing firm's financial condition during the five (5) years starting from 2009 to 2013 can be seen in Table I.

TABLE I. DEVELOPMENT OF THE DPR, INSIDER OWN, BOARD SIZE, & ROE MANUFACTURING COMPANIES LISTED ON BEI FROM 2008-2013

No	Variable (%)	2008	2009	2010	2011	2012	2013	Mean
1	DPR	45.6	35.6	45.0	45.1	45.2	46.2	43.82
2	Insider Own	0.20	0.25	0.25	0.25	0.26	0.26	0.247
4	Institutional Own	0.21	0.22	0.24	0.25	0.27	0.75	0.325
4	Board Size	0.60	0.81	0.81	0.828	0.82	0.82	0.785
5	ROE	22.5	37.8	26.0	30.3	35.4	35.5	31.28

<sup>a</sup> Source : ICMD January 2014/www.idx.co.id

Based on table I that the dividend policy is peroxided Parliament fluctuated average increase in 2008 to 2013 by 42 827%, while the Insider Own 2008 to 2013 has increased average of 0.247%. Furthermore Institutions Own. 2008 to 2013 increased 0325%. Similarly Board Size 2008 to 2013 average increased by 0785% and ROE increased by an average of 31.282%

Based on the above description that the increase in the stock price and the dividend payment is expected by shareholders as both are the result of the return on investment is doing, because if the high return stock manufacturing sector is high, it will motivate investors to invest in the sector. But looking at the data that IHSG and issuers that pay dividends manufacturing sector is lower than the issuer's entire enterprise is gap, whereas on the other hand the firm's manufacturing sector is expected as a manufacturer of high value has a strong financial performance, because the manufacturing sector had the highest contribution to Gross Domestic Product (GDP) Indonesia, as well as generating tremendous value to the firm, the shareholders and the country. The phenomenon is not optimal IHSG and issuers that pay dividends from the firm's manufacturing sector is the focus of study in this research.

## II. LITERATURE REVIEW

### A. Literature Review

#### 1) Agency Theory

Agency theory by Jensen and Meckling (1976) states that agency relationship is a contract in which one or more persons (the principal) engage to another person (the agent) to perform certain services on behalf of the principal and giving authority to the agent for making the best decisions for the principal. Furthermore, according to Jensen and Meckling (1976), on the relationship between the principal and the agent there is a good reason to believe that the agent does not always act based on principal's interest [4]. Therefore principal needs to control or monitor to prevent the deviant actions performed by the agent or the manager, so that managers can carry out their duties in accordance with the wishes of the principal. In this condition each party has its own interests. This is the basic problem in the agency theory, the existence of a conflict of interest. Agency theory emphasis on the determination of contractual arrangements that are efficient in the relationship between the owner and agent.

#### 2) Firm's Value

Firm's value called the firm's market value is the potential price that buyers are willing to pay if the firm is sold. The firm's value is also defined as the market value because firm's value can maximize shareholders wealth, if the stock price increases (Hasnawati, 2005) [5]. Firm's Value as a market value, since the firm's value can maximize shareholders prosperity if the stock price rises. The higher the stock price increases, the higher the level of shareholders prosperity. In this study, the firm's value is measured using a price book value (PBV), which is the ratio between the closing market price of the stock of the firm at the end of the book value of the stock. This ratio measures the value given to the management financial markets and firm as the firm continues to grow (Brigham, 1999: 92) [6].

#### 3) Dividend Policy

Dividend policy is an important issue, because it involved not only the amount of money but also repetitive of payout. Dividends payment policy has a close relationship with the majority of firm's investment and other financial policies. The policy of dividend payments is a complicated matter in a firm, because it involves two parties with different interests, namely between the shareholders and the management firm itself.

Dividend policy according to Riyanto (1995) is a policy concerning a revenue sharing between the payment of dividends to shareholders or for use in the firm [7]. According to Weston and Brigham (1990) dividend policy is policies to decide whether to distribute the profit or hold it to be reinvested in the firm [8]. Meckling, (1976), suggested to pay dividends to align the interests of managers with those of investors, by increasing the dividend payout ratio to reduce agency costs, as the payment of dividends reduces the funds available for the manager. Dividend policy is a determination of the profits gained by the firm, the amount of which shall be distributed to the shareholders called dividend and profits to be reinvested in the firm or also called retained earnings. The firm's goal based on financial management point of view is to

maximize stockholders prosperity which often interpreted as maximizing the value of the firm (Pujiastuti, 2008) [9].

#### 4) *Manager Share-Owned*

As already mentioned, ownership structure can affect the firm's value, some studies suggest that this conflict can be minimized by giving managers the option of ownership in the form of stock options (Jensen and Meckling, 1976) [10]. Such manager share-owned is interesting if it is associated with agency theory (Christiawan & Tarigan, 2007) [11]. By this manager share-owned, a manager who once shareholders do not want the firm become bankrupt. Bankruptcy will harm manager's business because of the loss of incentive and shareholders will lose return even the funds invested (Sulistiono, 2010) [12]. Jensen and Meckling (1976), revealed that in order to reduce the agency cost, the shareholders may limit the activities of agents through the provision of appropriate incentives, such as increasing internal share-owned by management.

#### 5) *Board Size*

Besides manager share-owned, the role of commissioners is also expected to improve earnings quality by limiting the level of earnings management through the monitoring functions of the financial statements. The influence of the number of commissioners towards the performance of companies could get a different results. Yermack (1996) [13], and Jensen (1993) stating that more personnel who become commissioners may result in deterioration of the performance of the firm [14]. Furthermore Beiner et al. (2003) states that the Board size is the number of commissioners of the firm [15]. Correspondingly, the National Committee on Governance (NCG 2004), states that the commissioners responsible and authorized to oversee the actions of management, and provide advice to the management if deemed necessary by the Board of commissioners. Thus, the Board size as one of the independent variables that are expected to significantly affect the value of the firm. Board size peroxided into independent Board amount, with all commissioners then use the formula:

$$\text{Board Size} = (\text{Number of Independent Board of Commissioners}) / (\text{the Board of Commissioners}) \times 100\%$$

#### 6) *Profitability*

Profitability is the ability of the firm makes a profit in relation to sales, total assets and own capital (Sartono, 2000) [16]. Thus for long-term investors would be very concerned with this profitability analysis. Profitability shows the firm's ability to generate profits from assets that are used. Profitability analysis provides supporting evidence regarding the ability of the firm makes a profit and the extent of the effectiveness of companies management (Smith and Skousen 1992) [17]. Profitability is measured by using a Return on Equity (ROE) obtained with earnings after tax from the firm divided by the capital of the firm (Nuringsih, 2005) [18].

#### B. *Development Hypothesis*

The research hypothesis is formulated as follows:

- H1: Dividend Policy positively influence firm's value
- H2: Manager share-owned positively influence firm's value
- H3: The Board size positively influence firm's value
- H4: Profitability positively influence firm's value
- H5: Dividend Policy, Manager share-owned, Board Size and Profitability positively influence firm's value

### III. RESEARCH METHODS

#### A. *Population*

The population in this study are all manufacturing companies listed in Indonesia Stock Exchange (BEI), with observation periods ranging from 2009 to 2013. The number of manufacturing companies listed on the Indonesia Stock Exchange 110 companies with a total number of 660 observations.

#### B. *Sample*

The sampling method used is manufacturing companies listed on the Stock Exchange, with the following criteria:

- The manufacture firm registered and remains active on the Stock Exchange until 2014, so that it can be seen the development levels of profitability, dividends and ownership as well as independent Board;
- The firm owns and publishes financial statements as of December 31 for the fiscal year 2009 through fiscal year 2014;
- The sample in this study is the manufacturing sector amounted to 110 companies listed on the Indonesian Stock Exchange (BEI), during the observation period ranging from 2009 to 2014.

#### C. *Variable Operationalization*

The use of variables in the research that has been conducted by researchers previously referenced in research is that in determining the value of the firm using variables: Dividend Policy (KEBDI), Manager Share-Owned (KEMAN), size of the Board (UKKOM), and profitability (PROFI). Giving an operational definition is done with the aim to avoid things that are biased toward the object of research, measurement study, research instruments, and data collection. Therefore we need a clear variables to define it. Variable research and operational definitions in this study are:

##### 1) *Dependent Variable (Y)*

The dependent variable is the key variable is the factor that applies in the investigation (Uma Sekaran, 2006) [19]. The dependent variable in this study is the value of the firm, according to Nurainun and Sprott (2007) [20]; Andinata (2010) [21], the enterprise value is the price paid by the investor is willing to have a firm. The value of the firm is reflected in the stock price. The firm's value in this study was measured by price-to-book value (PBV) ratio as it relates to the growth of their own capital which compares market value



to its book value. Price to book value ratio is a ratio that is often used to determine the value of the firm and make informed investment decisions by comparing the year-end stock market price and the book value of the firm. In this study the price-to-book value (PBV) ratio is calculated

$$PBV = (\text{Price per Share}) / (\text{Book Value per strip}) \times 100$$

## 2) Independent Variable (X)

The independent variables are variables that affect or because changes or the emergence of the dependent variable (dependent). Here independent variable (X) in this study:

### a) Dividend Policy (X1)

According to Brigham and Houston (2006, p. 66) the dividend policy decision is "The decision about how much profit is now to be paid as a dividend of the detained to be reinvested in the firm" [22]. Dividend policy determines how many benefits to be obtained shareholders. The gains of shareholders will determine the welfare of shareholders, who are the main objectives of the firm. The greater the dividends distributed to shareholders, the performance of listed companies will be considered the better and in the end the firm has performed a good managerial considered beneficial and would vote against the firm will be the better, which is usually reflected by the level of stock prices, In this study, the dividend policy will be determined by using a dummy, with a nominal scale of 1 (one) for companies that pay dividends and 0 (zero) for companies that do not pay dividends.

### b) Manager Share-owned (X2)

Manager Share-Owned is the number of shareholding by the management of the entire share capital of the firm managed (Gideon, 2005) Manager Share-Owned is calculated using the percentage of shares owned by the management firm that actively participate in corporate decision (commissioners and directors) [23]. In this study, Manager Share-Owned will be determined by using a dummy, with a nominal scale of 1 (one) for a firm that shares the managerial and 0 (zero) for the firm that there are no stock management.

### c) The size of the Board of Commissioners (X3)

In addition to Manager Share-Owned, the role of commissioners is also expected to improve earnings quality by limiting the level of earnings management through the monitoring functions of the financial statements. The influence of the number of commissioners on the performance of companies get different results. Yermack (1996), Eisenberg et al (1998) and Jensen (1993). Stating that more personnel be commissioners may result in deterioration of the performance of the firm. Furthermore Beiner et al. (2003) states that the Board size is the number of commissioners of the firm. Correspondingly, the National Committee on Governance (NCG 2004) states that the commissioners responsible and authorized to oversee the actions of management, and provide advice to the management if deemed necessary by the Board of commissioners. Thus, the Board size as one of the independent variables that are expected to significantly affect the value of the firm. In this study, Board size will be determined using the indicator number of Board members of a

firm. Board size proxied into Amount Board Independent, thus can be used formula:

$$\text{Board Size} = (\text{Number of Independent Board of Commissioners}) / (\text{the Board of Commissioners}) \times 100\%$$

### d) Profitability (X4)

Profitability or profit is a factor that affects the value of the firm. Profitability is the loss of revenue and expenses during the reporting period. Analysis of the profitability is essential for creditors and equity investors. For creditors, profit is the source of payment of interest and principal. As for equity investors, income is a determining factor for change in the value of securities. The most important thing for the firm is how to maximize the profit of shareholders is not how much profit is generated by firm. According to Saidi (2004), profitability is the firm's ability to make a profit [24]. The investors to shares in the firm is to get a return. The higher the ability of the firm makes a profit, the greater the expected return of investors, making the value of the firm to be to be better. Profitability reflects the firm's ability to generate high returns for shareholders. The greater the profits, the greater the firm's ability to pay its dividend, and this has an impact on the increase in value of the firm. With a profitability ratio that owned a high then the firm will attract investors to invest in the firm. With the following formula:

<b>Profit After Tax</b> $ROE = \frac{\text{Profit After Tax}}{\text{Owner's equity}} \times 100\%$
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## D. Method Analysis

In this study will use panel data regression analysis method for the sample in this study is based on the time series and cross section. Testing the data is to perform a regression on dependent variable with independent variables. The regression model in this study as follows: (Jaka Sriyana, 2014) [25]

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \epsilon_{it}$$

Information:

$Y_{it}$  = Value Firm

$\beta_0$  = Constant

$\beta_1$  = regression coefficients

$\epsilon$  = Standard Error / residual

$X_1$  = Dividend Policy

$X_2$  = Manager Share-Owned

$X_3$  = Size BOARD

$X_4$  = Profitability

## IV. RESULTS AND DISCUSSION

### A. Research Result

#### 1) Statistical Analysis Deskriptive

Based on a sample of 110 processing sector companies listed on the Indonesian Stock Exchange (BEI), during the observation period ranging from 2009 to 2014. Descriptive statistics were used to determine the image or the obvious characteristics of the data used in measuring the Firm's Value

(NIPER), with Variable Dividend Policy (KEBDI), Manager Share-Owned (KEMAN), size of the BOARD (UKKOM), and profitability (PROFI). Based on the results of Test Results Descriptive Statistics Year 2009 to 2014 as Table II.

TABLE II. TEST RESULTS DESCRIPTIVE STATISTICS

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Y	660	-17143.00	8710.00	189.9776	1090.682
X1	660	0.00000	1.00000	0.225758	0.418397
X2	660	0.00000	1.00000	0.492424	0.500322
X3	660	20.00000	100.00000	39.30723	10.39127
X4	660	-768.4800	324.6300	8.920864	54.54639

<sup>b</sup>. Source ICMD processed: <http://www.idx.co.id>.

c.

Based on Table 4.1 it can be seen that the enterprise value (Y) calculated using PBV in this study had an average value of 189.98 times. On average PBV of 189.98 times it can be interpreted that the firm's average share price has traded assessed overvalued (above the book value of shares). The standard deviation for the variables PBV 1090.68 times. The lowest level of the firm's value is -17 143 times and the highest is 8710 times. Dividend policy (X1) in this study was measured by the House of Representatives from each firm were selected as sample. Mean of policy dividend of 0.2258; owned standard deviation of 0.4184 dividend policy; the minimum value of the dividend policy that is 0,000 and the maximum value of 1,000 Manager Share-Owned variable (X2) has an average of 0.492. For Manager Share-Owned variable standard deviation of 0.500. Percentage of Manager Share-Owned low of 0.0000 and a high of 1,000. An average of 0.492 or 4.92% indicates that the percentage of share ownership by the management in the manufacturing industry is still small, because the majority of Manager Share-Owned in the firm slightly. Variable Size Board (X3) has an average of 39.307%. Standard deviation variable Board size of 10.391%. Percentage Board Size low of 20.000% and the percentage size of Board high of 100.00%. Of the total number of commissioners indicate that the firm has an independent Board percentage is high. Profitability (X4) in this study was measured through ROE has a mean value of 8.921%. The minimum value of the variable profitability amounted -768.480% and a maximum value of 324.630%. It shows that companies that have a high ROE is very profitable for the firm, because the firm should pay a dividend, which is owned profitability standard deviation of 54.55%

## 2) Hypothesis testing

Test hypotheses simultaneously and partially committed against hypothesis H1 to H5. Step - step test to answer the hypothesis that there is by using panel data using the assistance program EvIEWS 8.0 by using least square regression model Pooled, Fixed Effects and the Random effect is as follows :

a) To find the best model will be tested Pooled Least Square and Fixed effect.

Table III. Estimates of regression test results with Pooled Least Square

TABLE III. ESTIMATION RESULTS OF REGRESSION TEST *POOLED LEAST SQUARE*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.130	0.59900	5.27425	0.000
X1	0.3612	0.092152	3.919991	0.0001
X2	-0.099844	0.079492	-1.256029	0.2096
LN <sub>X3</sub>	0.195329	0.162875	1.199260	0.2310
LN <sub>X4</sub>	0.423332	0.032431	13.05344	0.0000
R-squared	0.296531	Mean dependent var	4.839560	
Adjusted R-squared	0.291320	S.D. dependent var	1.096919	
S.E. of regression	0.923421	Akaike info criterion	2.687670	
Sum squared resid	460.4618	Schwarz criterion	2.727127	
Log likelihood	-727.3900	Hannan-Quinn criter.	2.703095	
F-statistic	56.90598	Durbin-Watson stat	1.015456	
Prob(F-statistic)	0.000000			

TABLE IV. ESTIMATION RESULTS OF REGRESSION TEST FIXED EFFECT

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.631902	0.754885	7.460613	0.0000
X1	0.230074	0.073902	3.113227	0.0020
X2	0.008376	0.072082	0.116201	0.9075
LN <sub>X3</sub>	-0.319812	0.206900	-1.545731	0.1229
LN <sub>X4</sub>	0.139589	0.033751	4.135794	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.734461	Mean dependent var	4.839560	
Adjusted R-squared	0.669443	S.D. dependent var	1.096919	
S.E. of regression	0.630663	Akaike info criterion	2.091389	
Sum squared resid	173.8108	Schwarz criterion	2.943655	
Log likelihood	-461.9035	Hannan-Quinn criter.	2.424574	
F-statistic	11.29634	Durbin-Watson stat	1.693348	
Prob(F-statistic)	0.000000			

To determine whether the best model is the model Pooled Least Square or fixed effect, will be tested using the Chow - test or the likelihood ratio test.

## b) Chow -test or the likelihood ratio test

Hypothesis namely:

H<sub>0</sub>: a model to follow Pool

H<sub>1</sub>: Fixed a model to follow.

Conditions:

- If H<sub>0</sub> is accepted, then the model Pool (common). (Testing completed until here )

If  $H_0$  is rejected, then the model Fixed effects.  
(Continue with Random testing effects and Hausman test)

TABLE V. CHOW TEST - TEST STATISTIC F ATAU CHI-KUADRAT.

Redun&t Fixed Effects Tests  
Equation: Untitled  
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.997145	(103,437)	0.0000
Cross-section Chi-square	530.973057	103	0.0000

The test Chow test results show the value of the probability F test of 0.0000 and Chi -square probability value of 0.0000. Probability chi square smaller than 0.05 ( < 5 % ) was significant that  $H_0$  and  $H_1$  accepted, following the model of fixed effect model , so further testing followed by an estimation of Random Effect Model ( REM )

*c) Estimation Random Effects Model ( REM )*

To search individually effect of the equation will be tested Random Effect Random Effect. The estimation results of Random Effect Model (REM) is as follows:

TABLE VI. ESTIMASI MODEL RANDOM EFFECT

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.722715	0.637163	7.412097	0.0000
X1	0.279357	0.071409	3.912059	0.0001
X2	-0.050183	0.067283	-0.745847	0.4561
LN3	-0.119941	0.173620	-0.690827	0.4900
LN4	0.230567	0.030045	7.674004	0.0000
Effects Specification			SD	Rho
Cross-section random			0.609478	0.4829
Idiosyncratic random			0.630663	0.5171
Weighted Statistics				
R-squared	0.118739	Mean dependent var		1.958441
Adjusted R-squared	0.112211	S.D. dependent var		0.729946
S.E. of regression	0.659171	Sum squared resid		234.6333
F-statistic	18.18951	Durbin-Watson stat		1.417865
Prob(F-statistic)	0.000000			
Unweight Statistics				
R-squared	0.236290	Mean dependent var		4.839560
Sum squared resid	499.8929	Durbin-Watson stat		0.853183

To find out more models in accor&ce with Random Effect or Fixed Effect, testing is done by using a Hausman test.

*d) Statistics Hausman Test with Random Effects*

Hausman test hypothesis testing are:

$H_0$ : a model to follow Random Effect

$H_1$ : Fixed Effect models to follow.

Conditions:

- If  $H_0$  : accepted, then Random effects models
- If  $H_0$  : rejected, then the model Fixed effects

TABLE VII. HAUSMAN STATISTICAL RESULT. ESTIMATED WITH RANDOM EFFECT.

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	39.044259	4	0.0000

Test result of random effect probability period using Hausman test is 0.0000 not significant (p-value < 5%),  $H_0$  rejected and  $H_1$  accepted. Therefore, model fits to Fixed Effect as follows:

TABLE VIII. REGRESSION TEST ESTIMATION RESULT USING FIXED EFFECT

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.631902	0.754885	7.460613	0.0000
X1	0.230074	0.073902	3.113227	0.0020
X2	0.008376	0.072082	0.116201	0.9075
LN3	-0.319812	0.206900	-1.545731	0.1229
LN4	0.139589	0.033751	4.135794	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.734461	Mean dependent var	4.839560	
Adjusted R-squared	0.669443	S.D. dependent var	1.096919	
S.E. of regression	0.630663	Akaike info criterion	2.091389	
Sum squared resid	173.8108	Schwarz criterion	2.943655	
Log likelihood	-461.9035	Hannan-Quinn critter.	2.424574	
F-statistic	11.29634	Durbin-Watson stat	1.693348	
Prob (F-statistic)	0.000000			

From table 4.9 above the fixed effect model can be made the following equation:

$$LN Y = 5.6319 + 0.23001 X1 + 0.0084 LOGX2 - 0.3198 LN3 + 0.1396 LN4$$

From the results of the Fixed Effect equation, note that:

Test the coefficient of determination (R<sup>2</sup>) with R<sup>2</sup> values of 0.7345 indicates that four independent variables X1, X2, X3 and X4 are able to explain the effect of the variable Y for 73.45%, while the remaining 26.55% is explained by other variables.

Overall hypothesis testing by F test, obtained results calculated F value of 11 296 with probability 0.0000. This shows H<sub>0</sub> rejected and H<sub>a</sub> accepted as the value of F count larger than F table = 2,386 (F table at alpha 5%, DF<sub>1</sub> = k = 4 and DF<sub>2</sub> = nk-1 = 660-4-1 = 655) and a probability value is below the 5% significance value (sig 0.000 < 0.05). This shows simultaneously / together independent variables X1, X2, X3 and X4 significant effect on the dependent variable Y with significance level of 5%. Thus hypothesis 5: X1, X2, X3 and X4 simultaneously / together a significant effect on Y are accepted.

In addition to simultaneously test, hypothesis testing will also be done partially on the existing hypotheses. Results of hypothesis testing based on tables 4.5, which describes the influence of variables in the research model can be seen in the following table:

TABLE IX. HYPOTHESIS TESTING RESULTS

Hypothesis	Regression coefficient	t-count	Probabilities	Resume(t count > t table)	Result
H1.X1→ Y	0.230	3.113	0.0020	Significant	H1 Be accepted
H2.X2→ Y	0.008	0.116	0.9075	Not significant	H2 Rejected
H3.X3→ Y	-0.320	-1.546	0.1229	Not significant	H3 Rejected
H4.X4→ Y	0.140	4.136	0.0000	Significant	H4 Be accepted

According to the table 4:10 regression test results can be shown on the model equations in the research model done after direct measurement of independent variables to the value of the firm.

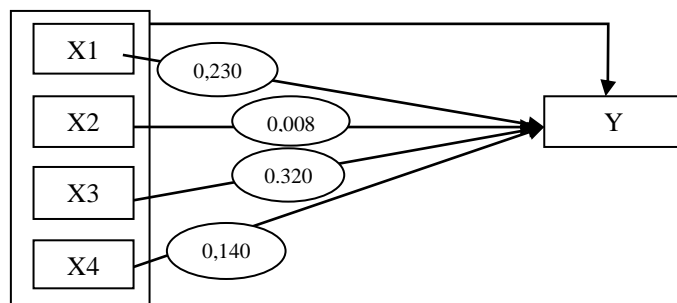


Fig. 1. Research model independent variables direct effect on the value of the firm.

Based on the output of the fixed effect model at 4:10 in the table can be the following results:

- Testing the hypothesis partially / individuals with the t test, the results obtained t value for the variable X1 for 3,113 with p value of 0.0020 and t variable X4 amounted to 4,136 with p value of 0.0000 was significant. Both independent variables used such that X1 and X4 was significant because t count > t table (obtained t table = 1,964 at alpha 5% with df = n-2 = 660-2 = 658). The fifth variable p value is also smaller than 0.05 so it was significant. So the independent variables X1 and X4 partial / individual affect the dependent variable Y. This shows that the hypotheses H1 and H4 are accepted.
- While the t value for the variable X2 amounted to 0.116 with p value of 0.9075 otherwise insignificant, because for t less than t table = 1964 (t table at alpha 5% and df = n-2 = 1132-2 = 1130) and t value for the variable X3 for -1546 with p value of 0.1229 was also declared insignificant, because for t less than t table = 1,964. So independent variables X2 and X3 partial does not affect the dependent variable Y. This shows that the hypotheses H2 and H3 be rejected.

## B. Discussion

The discussion on the model equation is done in detail to each of the independent variables included in the model in order to know how to influence and its implications for the dependent variable, the value of the firm (NIPER). Equation Model presents a discussion of the results of research on the effect of variable KEBDI, KEMAN, UKKOM, and PROFI against NIPER.

Furthermore, based on the above table Fixed Effect models (FEM) can be created regression equations used in accordance with empirical evidence meets the suitability model (goodness of fit) at a significance level of less than 5%. Therefore, all the variables included in the regression model has the ability to predict or explain its impact on the firm value degree of confidence greater than 95 percent (5-.000).

Test Results coefficient of determination (R<sup>2</sup>) with R<sup>2</sup> values of 0.7345 indicates that fourth independent variable Dividend Policy (X1), Manager Share-Owned (X2), size of the Board Commissioner

(X3) and profitability (X4) was able to explain the effect of the variable Value Firm (Y) amounting to 73.45%, while the remaining 26.55% is explained by other variables outside the model.

Then test the overall hypothesis by F test, obtained results calculated F value of 11 296 with probability 0.0000. This shows H<sub>0</sub> rejected and H<sub>a</sub> accepted as the value of F count larger than F table = 2,386 (F table at alpha 5%, DF<sub>1</sub> = k = 4 and DF<sub>2</sub> = nk-1 = 660-4-1 = 655) and a probability value is below the 5% significance value (sig 0.000 < 0.05). This shows simultaneously / together independent variables X1, X2, X3 and X4 significant effect on the dependent variable Y with significance level of 5%. Thus hypothesis 5: X1, X2, X3 and X4 simultaneously / together a significant effect on Y are accepted.



Then also test the overall hypothesis by F test, obtained results calculated F value of 19 049 with probability 0.0000. This shows  $H_0$  rejected and  $H_a$  accepted as the value of F count larger than F table = 2,018 (F table at alpha 5%,  $DF_1 = k = 7$  and  $DF_2 = nk-1 = 1132-7-1 = 1124$ ) and a probability value is below the 5% significance value (sig 0.000 < 0.05). It shows simultaneously or jointly KEBDI independent variables (X1), KEMAN (X2), UKKOM (X3), and PROFI (X4) significantly affects NIPER dependent variable (Y) with significance level of 5%. Thus hypothesis 5: KEBDI (X1), KEMAN (X2), UKKOM (X3), and PROFI (X4) simultaneously / together significant effect on NIPER (Y) are accepted. This means that the variable value of the Firm (NIPER) is influenced by variable factors Dividend Policy (KEBDI), Manager Share-Owned (KEMAN), size of the BOARD (UKKOM), and profitability (PROFI) simultaneously.

According to the table 4.5. Fixed Effect models (FEM), can be seen from the regression coefficient value, then the variable Dividend Policy with coefficient 0.230074 is the variable that most profoundly influenced the variable value of the Firm, and variable Manager Share-Owned is the variable that most small to influence the variable value of the Firm, with a value Furthermore, in addition to test the coefficient 0.008376 simultaneously, hypothesis testing will also be done partially on the existing hypotheses.

Results of hypothesis testing based on tables 4.5, which describes the influence of the independent variable on the dependent variable the value of the firm in this research model can be seen in Table 4.9 as has been stated above, the following findings:

- Hypothesis 1: t value for the variable Dividend Policy (X1) amounted to 3,113 with p value of 0.0020 was significant, the hypothesis states that the unity which affect the value Dividend Policy The Firm may be accepted. This means with 95% confidence level can be concluded that the effect on the Dividend Policy The Firm Value. Dividend Policy statistically significant positive effect amounting to 0.230 against the value of the Firm. This means that if a statistically significant rise 5% Dividend Policy, the Value of the Firm will increase by 0.230%. The significance of these test results is that the price for the shares will increase if the observed rise Dividend Policy, because the stock price is a proxy of the value of the Firm. The findings are positive and significant sign of Dividend Policy showed that manufacturing firms in Indonesia are sensitive to dividend payments, as investors hold shares in accordance Bird motif In Hand Theory (Gordon, 1963), suggesting that investors prefer dividends, because they are more certain than capital gains. The results of this study support previous research conducted by Taswan (2003) [26], Policy Dividend positive effect on firm value. However, in contrast with the results of previous studies conducted by the Sri Sofianingsih (2011) [27], a variable dividend policy is not proven effect on firm value

- Hypothesis 2: t value for the variable Manager Share-Owned (X2) is 0.116 with p value of 0.9075 was also revealed no significant effect on Y, since for t less than t table = 1,964, the third hypothesis which states that the Manager Share-Owned affect the Firm's value cannot be accepted, this means with 95% confidence level can be concluded that Manager Share-Owned has no effect on the Firm Values. Manager Share-Owned but not significant effect on firm value. The regression results indicate that the influence of Manager Share-Owned enterprise value is not significant, so a small influence in determining the value of this firm. Finding show that does not comply with the statement that the higher the ownership of insiders, the higher the value of the firm Jensen (1993) [28]. Furthermore, Jensen and Meckling (1976) [29], that in order to reduce the agency problem, the shareholders may limit the activities of agents through the provision of appropriate incentives, such as increased shareholding by management, but this incentive is not responded to the manufacture firm, because management is also owner. The results of this study support previous research conducted by Suranta E and Machfoeds, M. (2003) [30], Taswan and Soliha (2002) [31], Sri Sofianingsih (2011)[32], Dwi Sukirni (2012) [33], that Manager Share-Owned does not affect the value of the firm.
- Hypothesis 3: t value for the variable size of the Board (X3) at -1546 with a p value of 0.1229 otherwise insignificant, then the third hypothesis which states that the effect size of the Firm's Board of Commissioners on value is not accepted, This means the level of confidence 95% can be concluded that the size of the Board of Commissioners does not affect the value of the Firm. Size Board statistically significant negative effect of -0320 on the value of the Firm. That means statistically that if the size of the BOARD rose 5%, the Value of the Firm will increase by -0320%. The significance of these test results is that the price for the shares will increase if the observed size of the BOARD raised. These findings do not correspond with the importance of the Board of Commissioners, as well as the National Committee on Governance (NCG 2004) which states that the Board of directors is responsible and authorized to oversee the actions of management, and provide advice to the management if deemed necessary by the Board of Commissioners. Allen and Gale (2000) which confirms that the Board of directors is an important corporate governance mechanism, with the achievement of corporate governance will raise corporate value. The results of this study support previous research conducted by Gill, A. and Neil Mathur, N, (2011), CEO duality enhance shareholder value. Reyna, JMSM and Encalada, JAD, (2012), the Board of directors affect the value of the firm, Mai, MU, (2011), size Boards positive and significant impact on Tobin's q. However contrasts with the results of previous studies conducted oleh Nasser, EM, (2008 ), variable corporate governance which is a proxy from Board size when associated with the firm's proven to be significant



- Hypothesis 4: Profitability t value variable (X4) amounted to 4,136 with p value of 0.0000 was also declared significant, the seventh hypothesis which states that the effect on the profitability of the Firm Value acceptable. This means with 95% confidence level can be concluded that the effect on the profitability of the Firm Values. Profitability is statistically significant positive at 0.140 against the value of the Firm. That means statistically that if Profitability rose 5%, the Value of the Firm will increase by 0.140%. The significance of these test results is that the prices for stocks that observed increases when profitability rises. These findings suggest accordance with profitability analysis that provide supporting evidence of the ability of the firm makes a profit and the extent of the effectiveness of management companies (Smith and Skousen 1992). The results of this study support previous research conducted by Intan Teddy Chandra (2007) Profitability dividend policy affect the value of the firm.[34]
- Hypothesis 5: overall hypothesis testing by F test, obtained results calculated F value of 11 296 with probability 0.0000. This shows H0 rejected and Ha accepted as the value of F count larger than F table = 2,386 (F table at alpha 5%, DF1 = k = 4 and DF2 = nk-1 = 660-4-1 = 655) and a probability value is below the 5% significance value (sig 0.000 < 0.05). This shows simultaneously / together independent variables X1, X2, X3 and X4 significant effect on the dependent variable Y with significance level of 5%. Thus hypothesis 5: X1, X2, X3 and X4 simultaneously / together a significant effect on Y are accepted. This means with 95% confidence level can be concluded that the four independent variables that affect the value of the Firm.

The results of this study support previous research conducted by Research Sukirni, D. (2012; 9) showed that Manager Share-Owned, possession institutional, dividend policy, debt policy, jointly affect the value of the firm [35]. Similarly, research by Suranta, E. and Machfoeds, M., (2003: 214) that Manager Share-Owned, institutional ownership, and the size of the Board of directors simultaneously positive and significant effect on firm value [36].

Testing the hypothesis partially / individuals with the t test, the results obtained t value for the variable X1 for 3,113 with p value of 0.0020 and t variable X4 amounted to 4,136 with p value of 0.0000 was significant. Both independent variables used such that X1 and X4 was significant because t count > t table (obtained t table = 1,964 at alpha 5% with df = n-2 = 660-2 = 658). The fifth variable p value is also smaller than 0.05 so it was significant. So the independent variables X1 and X4 partial / individual affect the dependent variable Y. This shows that the hypotheses H1 and H4 are accepted. While the t value for the variable X2 amounted to 0.116 with p value of 0.9075 otherwise insignificant, because for t less than t table = 1962 (t table at alpha 5% and df = n-2 = 1132-2 = 1130) and t value for the variable X3 for -1546 with p value of 0.1229 was also declared insignificant, because for t less than t table =

1,962. So independent variables X2 and X3 partial / individual does not affect the dependent variable Y. This shows that the hypotheses H2 and H3 be rejected. Variable Dividend Policy, and Profitability otherwise significantly affect the Firm's value, while variable Manager Share-Owned and Size of the Board of Commissioners does not affect the value of the Firm. However, Firm Value simultaneously influenced by variables Dividend Policy, Manager Share-Owned, Board of Commissioners Size and Profitability.

## V. CONCLUSION

- This study aims to answer the research objectives and provide empirical evidence that the independent variable dividend policy, manager share-owned, Board size and profitability influence the value of companies listed on the Stock Exchange in 2009-2014.
- The equation model of four independent variables used, is profitability dividend policy is significantly influence firm's value while manager share-owned and size of the Board of Commissioners has no effect to the firm's value.
- Payment of dividends may motivate investors of manufacturing firm listed in the Stock Exchange to buy shares of companies that pay dividends.
- The size of independent Board has not been able to balance the power of the Board of directors as shareholders.
- Profitability as a positive signal for investment.
- Ups and downs of the value of manufacturing companies in Indonesian Stock Exchange can be affected jointly by dividend policy and profitability.
- Profitability is very important for investors because the bigger the dividend, will then save on capital costs.
- The model developed in this study is a model of direct influence of independent variables towards firm's value

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