

## Fixed Effect Model on Company Value in Manufacturing Company Indonesia Stock Exchange

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### ABSTRACT

Companies in the growth stage will be able to affect the value of the company that is reflected in each share price. However, although the company tried to maximize the shareholders through the sales growth then each company growth will experience growth is different in the life cycle. The difference is due to four (4) dimension factors namely: dividends, sales growth, the capital expenditure and the age of companies that have different characteristics vary in characteristics of the stages of the life cycle. In the stage of growth, Intellectual Capital has an important role in the decision making of the existing investment opportunities and for the future, because with Human Capital that the company quality will be able to do the innovation which is the primary element of the creation of the value and significantly will be able to increase the value of the company that are reflected on the rise in the price of the shares. To be able to increase the corporate value and can only be achieved by improving the performance of the company, so that the management is required to attempt to maximize the shareholders, because the ineffectiveness balances between the management with shareholders at each stage life cycle causes the value of the company at this stage of growth will be different, the differences will be direction positive or negative by investors in doing share investment that caused the company share price different. The Data obtained is a combination of data between the data cross section and time series, then to know the influence of the used panel data regression with the approach of Fixed Effect Models (FEM). The results of the study showed that the dividend, capital Expenditure and Intellectual Capital affect the value of the company. Increase the value of the company occurs from 2011 until 2013 on 7 companies, namely *Ekadharma International*, *Goodyear Indonesia*, *Gajah Tunggal*, *Indospring*, *Indocement Tunggal Perkasa*, *Mayora Indah* dan *Unggul Indah Cahaya*. The year 2014 until 2015 all companies not significant increase in the value of the company and there are 3 companies from 2011 until 2015 not significant increase in the value of the company.

**KEYWORDS:** corporate value, dividends, sales growth, intellectual capital, company age, FEM.

### INTRODUCTION

The era of globalization requires the company to be able to show the best performance. The existence of the free market makes it easier to do transaction between countries that encourage companies to continually displays the best performance of the global markets for the ability to increase the competition [1]. Investors the chance to have the option to invest in the company or the business sector are considered to have a good financial fundamentals and consistent and have the prospect of a bright future will come [2].

Investors to invest based on the fundamental analysis of the performance of the operations of the company and its relationship in the form the value of the company [3]. While the share price describes the present value of future business prospects will come. So that the share price will illustrate the corresponding company business prospects for future [4].

The growth of the company in growth phase in the life cycle will be able to affect the value of the company which is reflected on each stock prices [4]. However, although the company tried to maximum shareholders through sales growth then each company growth will experience growth is different in the life cycle. The difference is due to four (4) dimension factors namely: dividends, sales growth, the capital expenditure and the age of companies that have different characteristics vary in characteristics of the stages of the life cycle. Therefore the market will mereaksi positive for companies that experience growth as expected, and negative when the growth is not as expected [5].

Life cycle the company refers to the status of the skills with steps repeatedly by surfing the sequence. In general, each product must live birth stage, growth, maturity, and decrease [4][2]. Each stage pointed differences are significant in the case of the situation, organization strategy, structures and decision-making style [3].

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At this stage of growth will occur agency problems between shareholders with the company manager because the ineffectiveness balances purpose between the owner with consolidated [6]. The managers want high economic growth, while on the other hand the owner upgrading the dates of dividends distribution, so that shareholders cannot control management. As a result of the company can be run according to the desire of management itself. The problem of shipping agency the majority with the minority happens if there are shareholders (majority ownership concentration), so that there is a majority shareholders can control the management or even become part of the management of itself [7].

The problem of shipping agency began to arise in the growth phase because at this stage begin to happen delegation of authority from the owner of the company to the management, it was due to the development of a larger organization. [8] shows that the typical growth corporation will continue to decentralization decision making structure with a shift in the authority of the downhill. So, managers will be more receive designating in decision-making, responsibility and the separation of ownership and control will start to appear [9]. [4] on the stage of growth is marked with more asset owned, rapid growth, earning and cash flows from operating activities that began to grow, and the age of entering the medium stage.

The company is in growth phase with high investment opportunities tend to maintain profits from pay in the form of dividend [5]. [4], in growth phase marked with more asset owned, rapid growth, earning and cash flows from operating activities that began to grow, and the age of entering the medium stage.

Expectation investors against the company that is in the growth phase is relatively high because the company in growth phase when able to take advantage of the opportunities will be entered on the stages mature. Investors expect the company with the stages of growth will be able to create revenue opportunity in the form of capital gain, while when the company entered at this stage in the mature then expectation investor is in the form of dividend payments in a relatively large number of. [10], the company is in growth phase will have a better future prospects so that hopefully will affect the movement of the value of the company.

The purpose of this research is to provide the picture regarding the factor of the factors that influence the value of the companies in Indonesia, especially recorded in Indonesia Stock Exchange. Research was done to provide evidence about the influence of dividend, sales growth, the capital expenditure and the age of the company to the value of the company with the approach of fixed effect model [11].

## METHODOLOGY

The data used in this research is a secondary data in the form of data that has been publication by the Indonesia Stock Exchange. The sample in this research is ten business entities in the manufacturing sector observed during 5(five years (2011-2015).

The Model is used to know the variables that impact on the Y (Company value) is as follows.

$$Y_{it} = \alpha_{it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + u_{it} \quad (1)$$

With  $\alpha_{it} = \alpha_i + \alpha_t$ ;  $i=1,2,...,10$ ;  $t=2011,2012,2013,2014,2015$

$Y_{it}$  = the value of the company on the company to- $i$  and years of observation to- $t$ .

$X_{1it}$  = Dividend on the company to- $i$  and years of observation to- $t$ .

$X_{2it}$  = Sales Growth in the company to- $i$  and years of observation to- $t$ .

$X_{3it}$  = Capital Expenditure on the company to- $i$  and years of observation to- $t$ .

$X_{4it}$  = Company age on the company to- $i$  and years of observation to- $t$ .

$X_{5it}$  = Intellectual Capital in the company to- $i$  and years of observation to- $t$ .

The index  $i$  in *intersep* on the common (1), the estimation technique with dummy variables so that the new equation can be seen in the following equation.

$$Y_{it} = D\alpha_{it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \varepsilon_{it}$$

With  $D = [d_1 \ d_2 \ \dots \ d_n]$  Is the dummy variable for the unit to- $i$ . [12].

Testing the significance of the parameters on the panel data regression basically identical with the testing of the significance of the linier regression [13] [14]. This test is intended to determine whether the parameters located in the panel data regression model has shown the right relationship between the independent variables with dependent

variables and to know whether the model that contains the parameter has been able to describe the real data [15]. There are two testing phase parameters in the panel data regression simultaneously and testing partially.

## RESULTS AND DISCUSSION

To describe the subject of the variables which are examined, then made a description based on the data obtained:

**Table 1** Average value and the deviation Standard Research Variable

Mean Std. The deviation	The Year				
	2011	2012	2013	2014	2015
Company value (Y)	6.57E+12	9.16E+12	1.06E+13	9.44E+12	1.03E+13
	1.63E+13	2.42E+13	2.83E+13	2.36E+13	2.46E+13
Dividend (X1)	18488.02	10456.19	12853.79	12891.87	15176.01
	47334.08	23261.79	30034.57	31709.36	35508.43
Sales Growth (X2)	20.36	14.49	12.04	11.27	-2.59
	8.73	7.62	5.96	8.52	11.74
Capital Expenditure (X3)	114.83	126.23	130.94	112.19	137.21
	88.25	116.98	144.64	139.53	178.23
Company age(X4)	39.50	40.50	41.50	42.50	43.50
	24.37	24.37	24.37	24.37	24.37
Intellectual Capital (Z)	1.80	2.51	0.16	15.53	2.51
	3.39	2.31	5.71	39.16	3.35

Source : The results of the data collection, processed

Based on the Table 1., corporate value from 2011 until 2013 improvements and further down in the year 2014 and rose again in 2015. When viewed from the default value of the deviation, high variation occurs from 2011 until 2015, this is shown from the default value of the deviation is greater than the value of the mean. Dividend payments from 2012 until 2015 improvements. When viewed from the default value of the deviation, high variation occurs from 2012 until 2015, this is shown from the default value of the deviation is greater than the value of the mean. Sales Growth from 2012 until 2015 a decline, even in the year 2015 gave negative values. When viewed from the default value of the deviation, small variations occur from 2011 until 2013, and rose again in the year 2014 until 2015, this is shown from the default value of the deviation is greater than the value of the mean in 2015. The age of the company from 2011 until 2015 improvements, when viewed from the default value of the deviation, a constant variation occurs from 2011 until 2015. This is shown from the default value of the deviation is smaller than the value of the mean from 2011 until 2015. Intellectual Capital from 2011 until 2015 changes occur both increasing and the writedowns and followed by the value of the Standard deviation is high from 2011 until 2015, this is shown from the default value of the deviation is greater than the value of the mean, except in 2012.

Linier regression calculated to search for the relationship and the influence of the free variables of the variables depending. Based on the print out on the EViews program then double regression equation as follows:

$$\hat{Y} = -3,32.10^{12} - 2,07.10^{10} X_1 + 1,69.10^{11} X_2 + 6,68.10^8 X_3 + 6,76.10^{10} X_4 + 6,83.10^{11} Z$$

Where:

Y = Company value

X1 = Dividend

X2 = Sales Growth

X3 = Capital Expenditure

X4 = Company age

Z = Intellectual Capital

The above equation test is done simultaneously first with test F, and then partial influence of free variables dependent variables briefly presented in the following table can be seen in table 2.

**Table 2** The result of the estimation parameters to Company Value

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.32E+12	3.65E+12	-0.909718	0.3679
Dividend (X1)	-2.07E+10	9.42E+09	-2.198040	0.0333
Sales Growth (X2)	1.69E+11	1.54E+11	1.098619	0.2779
Capital Expenditure (X3)	6.68E+08	46046965	14.51271	0.0000
Company age (X4)	6.76E+10	6.57E+10	1.029261	0.3090
Intellectual Capital	6.83E+11	2.87E+11	2.379501	0.0217
<b>R<sup>2</sup> = 0.836, F-Statistic = 45.041, Prob(F-Statistic) = 0.000</b>				

Table 2 shows that the value of F-Statistic = 45.041 and Prob (F-Statistic) = 0.000, if using  $\alpha = 5$  per cent then Prob (F-Statistic) = 0.000 <  $\alpha=0.05$  so that the model is said to fit. This means that there is at least one independent variables that affect the significant impact on the value of the company. Dividend variable, Capital Expenditure and Intellectual Capital partially affect the of company value, because the value of the p-value respectively; 0.000 0.022 0.033 and smaller than 0.05. This means that every dividend increased by one of the units and will decrease the value of the company by 2.07E+10 assuming Sales Growth, Capital Expenditure, Company age and Intellectual Capital constant. Capital Expenditure increases by one-unit, it will increase the company's value by 6.68E+8 by assuming dividend, Sales Growth, Company age and Intellectual Capital constant. Intellectual Capital Expenditure increases by one-unit, it will increase the company's value by 6.83E+11 by assuming dividend, Sales Growth, Capital Expenditure and Company age constant.

Further improvement of the value of the company for 5 years (2011 - 2015) is presented in table 3 below.

**Table 3** Dummy coefficient of each company for 5 Years Observation

Company	Years					P-value
	2011	2012	2013	2014	2015	
<i>Ekadharma International</i>	5.01709E+13	5.20474E+13	5.20550E+13	5.52204E+13	5.52204E+13	0.018
<i>Goodyear Indonesia</i>	1.67436E+14	1.69313E+14	1.69321E+14	1.72486E+14	1.72486E+14	0.051
<i>Gudang Garam</i>	5.56632E+13	5.75397E+13	5.75473E+13	6.07127E+13	6.07127E+13	0.219
<i>Gajah Tunggal</i>	1.05230E+14	1.07107E+14	1.07115E+14	1.10280E+14	1.10280E+14	0.057
<i>Hanjaya Mandala Sampoerna</i>	8.07268E+12	6.19618E+12	6.18855E+12	3.02315E+12	3.02315E+12	0.395
<i>Indospring</i>	5.53358E+13	5.72123E+13	5.72199E+13	6.03853E+13	6.03853E+13	0.028
<i>Indocement Tunggal Perkasa</i>	3.93335E+13	4.12100E+13	4.12176E+13	4.43830E+13	4.43830E+13	0.087
<i>Mayora Indah</i>	5.69794E+13	5.88559E+13	5.88635E+13	6.20289E+13	6.20289E+13	0.034
<i>Unggul Indah Cahaya</i>	4.63927E+13	4.82692E+13	4.82768E+13	5.14422E+13	5.14422E+13	0.024
<i>Indofood CBP SuksesMakmur</i>	4.63927E+13	4.82692E+13	4.82768E+13	5.14422E+13	5.14422E+13	-
p-value	0.025	0.067	0.028	-	-	

The influence of significant time can be seen from the value of p-value, namely 2011 and 2013 on  $\alpha=5\%$ , and 2012 significantly on  $\alpha=10\%$  on the table 4.2, there are 7 companies that significantly on  $\alpha=10$  percent increase corporate value from 2011 until 2013. The company are *Ekadharma International*, *Goodyear Indonesia*, *Gajah Tunggal*, *Indospring*, *Indocement Tunggal Perkasa*, *Mayora Indah* and *Unggul Indah Cahaya*. While 3 the other companies did not show a significant improvement in the last 5 years.

## CONCLUSION

Based on the results and the reviewers it can be concluded that the dividends, Capital Expenditure and Intellectual Capital affect the value of the company. Increase the value of the company occurs from 2011 until 2013 on 7 companies, namely *Ekadharma International*, *Goodyear Indonesia*, *Gajah Tunggal*, *Indospring*, *Indocement Tunggal Perkasa*, *Mayora Indah* and *Unggul Indah Cahaya*. The year 2014 until 2015 all companies not significant increase in the value of the company.

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