



AN EXAMINING THE FIRM LIFE-CYCLE THEORY OF DIVIDENDS IN INDONESIA

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Abstract

This study aims to examine the company's propensity of manufacture companies to pay dividend effected by retained earning to total equity (RE/TE) in their life cycle stages by controlling profitability, sales growth and firm size. Furthermore, this study also explains the company's propensity to pay a dividend before and after the global crisis particularly Subprime Mortgage. The firm 's life cycle consists of four stages: start-up, growth, mature and decline stage. This research is explanatory research by using regression qualitative response analysis. The purposive sampling used to determine the research sample. Thus 75 manufacture companies which are listed on the Indonesia Stock Exchange (IDX) in 2005 to 2016 have been selected as the research sample. This result shows that the Manufacture companies listed on IDX in 2005 to 2016 tend to pay a dividend on the mature stage before and after Subprime Mortgage. In the mature stage, the manufacture companies have a bigger probability of paying a dividend rather than in start-up, growth and decline stage in 2005 to 2016. The company's propensity to pay a dividend in the mature stage is bigger than the start-up, growth and decline stage before and after the Subprime Mortgage crisis. The conclusion of this study explains that the manufacture companies employ the life-cycle theory of dividend in their dividend policy.

Abstrak

Penelitian ini bertujuan untuk menguji kecenderungan perusahaan dari perusahaan manufaktur untuk membayar dividen yang dipengaruhi oleh laba ditahan terhadap total ekuitas (RE/ TE) dalam tahap siklus hidup mereka dengan mengendalikan profitabilitas, pertumbuhan penjualan dan ukuran perusahaan. Selain itu, penelitian ini juga menjelaskan kecenderungan perusahaan untuk membayar dividen sebelum dan setelah krisis global terutama Subprime Mortgage. Siklus hidup perusahaan terdiri dari empat tahap: tahap awal, pertumbuhan, dewasa dan penurunan. Penelitian ini adalah penelitian penjelasan dengan menggunakan analisis respon kualitatif regresi. Sampel purposive digunakan untuk menentukan sampel penelitian. Dengan demikian 75 perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) pada tahun 2005 hingga 2016 telah dipilih sebagai sampel penelitian. Hasil ini menunjukkan bahwa perusahaan manufaktur yang terdaftar di BEI pada tahun 2005 hingga 2016 cenderung membayar dividen pada tahap matang sebelum dan sesudah Subprime Mortgage. Pada tahap matang, perusahaan manufaktur memiliki kemungkinan lebih besar untuk membayar dividen daripada pada tahap start-up, pertumbuhan dan penurunan pada tahun 2005 hingga 2016. Kecenderungan perusahaan untuk membayar dividen pada tahap matang lebih besar daripada awal. naik, pertumbuhan dan tahap penurunan sebelum dan sesudah krisis Subprime Mortgage. Kesimpulan dari penelitian ini menjelaskan bahwa perusahaan manufaktur menggunakan teori siklus hidup dividen dalam kebijakan dividen mereka.

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INTRODUCTION

The decisions related to the number of firms earning that will be paid to shareholders is the definition of dividend policy (Anita & Yulianto, 2016). The dividend policy becomes one of the critical issues that should be considered by the company due to its decision affects the firm's value and shareholders prosperity (Erfiana & Ardiansari, 2016). Also, it is strongly determined the success of a firm (Sari, 2013). The company is required to pay a dividend as the realization of investor expectations (Cahyaningdyah & Ressany, 2012). Some problems of dividend policy affect the negative perception of investors to the firm (Sari & Wijayanto, 2015). Yulianto (2015) states the firm can pay the dividends through alternate between retained earning or debt (from investors).

There are many theories explain the determinants of dividend policy such as a life-cycle theory. Mueller (1972) argues that life-cycle theory is based on the idea that when the company turns into mature, its ability to generate fund will exceed its capacity to figure out the lucrative investment opportunities which are eventually the company pays free cash flow to shareholders in the dividends form. Senchak and Lee (1980) divides the company's lifecycle into three major stages, namely companies experiencing rapid growth, low growth and negative growth, while companies with the rapid growth rates have a tendency not to pay dividends, at the low growth rates companies continue to use zero dividend policy and the negative growth stage the company will conduct liquidating dividend and debt payment policy.

Gup and Agrawal (1996) state the life cycle company begin from the start-up stage, growth stage, mature stage and finishing by decline stage. The start-up stage begins when the company begins to enter the market and it is marked by high marketing and product development costs, low sales and remain losses. In the next stage, the company with a stable income and ability to meet market demand will focus on payout ratio although in a small number (Ratmono & Indriyani, 2015). Entering the growth stage, the price will decrease to the lowest point which reducing profit and its condition trigger the company turns into the decline stage due to the price remains at the lowest point, even the company losses and the dividend payout is stopped (Gup & Agrawal, 1996).

The company has varying RE/ TE levels and in each company's lifecycle due to the dividend payment. This condition is not by the firm

life-cycle theory of dividends which states dividend tends to be paid by the mature or established companies due to high corporate profitability and low investment opportunities (De Angelo et al., 2006). While the companies with low RE/ TE rates have a tendency not to pay dividends (Coulton & Ruddock, 2011), this condition is not by the data in table 1 which indicates the firm remain to pay the dividends in negative RE/ TE's value condition.

Table 1. The Company Pays Their Dividend Based on Life-cycle

	Dividend distributor	RE/TE
Start-up (N=97)	21%	-73%
Growth (N=152)	51%	.2%
Mature (N=431)	57%	30%
Decline (N=220)	25%	-3%

De Angelo et al. (2006) tested the life cycle theory by assessing whether a company's propensity to pay dividend positively correlates with a capital mixture by controlling the firm's characteristics. The results showed that RE/ TE, RETA, profitability, size, a dividend of the previous year and TETA had a significant positive effect on the dividend policy while cash holding had the significant negative effect to dividend policy.

This research is supported by Wardhana et al. (2014) which states the companies listed on the Indonesia Stock Exchange (IDX) are influenced by RE/TE in dividend sharing. This study was reinforced by Djumahir (2009), Murhadi (2008), Coulton and Ruddock (2011), Ratmono and Indriyani (2015) and Naufina and Rafik (2017), stating that the company's life cycle has a significant positive effect on dividend policy. This is in contrast to the research conducted by Paramita (2015) consistent with research from Imayanti (2013) states that the life cycle theory has no significant effect on the company's dividend policy. However, another study mentioned that the company's life cycle has a significant negative effect on dividend policy (Kangarlouei et al. 2014).

This research employs Manufacture Companies listed on the Indonesia Stock Exchange (IDX) in 2005 to 2016 as the research object. The development of the manufacturing industry is quite rapid, it reflects from the development of manufacture companies listed in IDX from year to year. By the development of manufacture companies, it probably causes the company

has ability to pay dividends and it has a profitable prospect in the present and future. However, amid the observation period, there had been a global crisis (Subprime Mortgage). Such another countries in the world, Indonesia is also affected by the global financial crisis began in developed countries. Its impact became more pronounced in the first quarter of 2009, such as export-oriented industries (manufacture sectors particularly in textile, automotive and electronics industries) were the worst affected industries compared to other sectors, either through reducing demand or commodity cost due to the weakening of exchange rate and the increasing of raw material prices causes rising of production costs. The Economic conditions due to the crisis occurred in Indonesia in 2009 led to decrease the financial performance of manufacture companies even to bankruptcy. Therefore, there is substantial doubt over the company's ability to pay dividends.

This research employs control variables such as profitability, sales growth and firm size. This research aims to understand the propensity of manufacture companies listed on IDX in 2005-2016 to pay dividends at the start-up, growth, mature and decline stage. I also want to know the propensity of manufacture companies listed on IDX to pay dividends at the start-up, growth, mature and decline stages before the crisis (2005-2008) and after the Subprime Mortgage crisis (2009-2016).

Hypotheses Development

In the start-up stage, the firms face market share and high market power, low sales and more expenditures than its income. Also, the company has a high growth opportunity, so it required

substantial funding to invest to realize the opportunities to grow.

The huge cash expenditure trigger retained earnings become low, so the companies have a tendency not to pay dividends (Gup & Agrawal, 1996). Anthony and Ramesh (1992) stated that at the start-up stage, companies tend to report negative income net and the best decision at this stage is not to pay a dividend. The negative earnings cause a negative retained earnings ratio in the company. Based on the description above about the start-up stage, it is expected that RE/TE positively influences the company's propensity to pay a dividend.

At the growth stage, the company can generate market share that influences sales growth (Lestari & Yulianto, 2017). It will increase both profit's growth and liquidity (Pashley & Philipatos, 1990). The company has also begun to pay dividends though in small amounts since the company tends to hold earnings for financial growth purposes (Al-ajmi & Hussain, 2011). At this stage, the investment opportunities remain high thus the companies tend to hold its profits rather than to pay a dividend (De Angelo et al., 2006). Based on the description above, at the growth stage, it is expected that RE/TE positively influences the company's propensity to pay a dividend.

At the mature stage, the company has high sales performance that will enhance the number of dividend payment (Gup & Agrawal, 1996). Fama and French (2001) state that companies at the mature stage are characterized by a high level of profitability and low growth opportunities. It will affect the number of retained earnings ratio (RE/TE). Companies with higher RE/TE rates tend to be more mature with a large cumulative

Table 2. The Definition of Research Variable

No.	Variable	Formula	Reference
1	Dependen Variable Dividend Policy	Dummy (1 : if dividend paid; 0 : if dividend is not paid)	De Angelo, et al. (2006)
2	Independen Variable RE/TE	$\frac{Retained\ Earning}{Total\ Equity}$	De Angelo, et al. (2006)
3	Control variable Profitability Sales Growth Firm Size	$\frac{Earning\ After\ Tax}{Total\ Assets}$	De Angelo, et al. (2006)
		$\frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$	
		In of Total Assets	

rate of return and support them to pay dividends (De Angelo et al., 2006). Based on the description, at a mature stage, it is expected that RE/TE positively influences the company's propensity to pay a dividend.

The company in the decline stage has limited growth due to the enormous competition. Also, cash flow from operating has decreased even turn into the negative value (Juniarti, 2005). The decreasing of significant sales and low profitability lead to dividend payment being dismissed (Pashley & Philippatos, 1990). Based on the description above, at the decline stage, it is expected that RE/TE positively influences the company's propensity to pay a dividend.

The firms with high growth opportunities and low profitability are the main reasons they do not pay a dividend (Baker et al., 2012), thus in this research employ profitability, sales growth and firm size as the control variables (Coulton & Ruddock, 2011).

The Profitability is the company's ability to generate some profits derived by assets owned (Riantini & Nurzamzam, 2015). This capability can be measured using return on assets (ROA), which is the critical ratio among the current rentability ratio (Wijayanto, 2010). Sales growth is an appropriate proxy for measuring growth rates (De Angelo et al., 2006).

The firm size shows the number of experience and the ability of a company's growth that can be measured by total assets (Haryanto, 2014). It means that the increase of firm size trigger to enhance profitability (Khafid & Nurlaili, 2017). Firm size can be measured using natural logarithms of the total assets and it is expected to have a positive effect on dividend policy (Abiprayu & Wiratama, 2016).

Based on the framework and theoretical basis, the hypothesis formulation of this research is:

- H1: RE/TE positively influences the company's propensity to pay a dividend at the start-up, growth, mature and decline stages and the company's propensity to pay a dividend is in the mature stage.
- H2: The company's propensity to pay a dividend before RE/TE positively influences the financial crisis at the start-up, growth, mature and decline stages and the company's propensity to pay a dividend is in the mature stage.
- H3: RE/TE positively influences the company's propensity to pay a dividend after the financial crisis at the start-up, growth, mature and decline stages and the company's propensity to pay a dividend is in the mature stage.

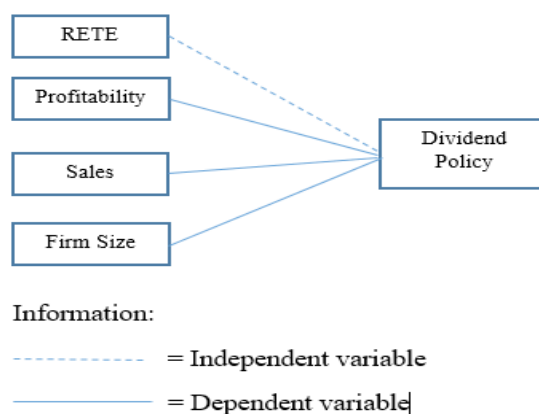


Figure 1. Research Framework

METHOD

The population of this study is all of the manufacture companies listed on the Indonesia Stock Exchange (IDX) from 2005 to 2016. The sample used in this research are 75 companies from whole manufacture companies listed on IDX from 2005 to 2016 with the number of observation are 900 data. The sample in this study generated by purposive sampling method, namely the method of collecting sample based on individual consideration explained by some experts (Sanusi, 2016).

The criteria used are (a) the manufacture companies listed on IDX from 2005 to 2016 continuously; (b) the manufacture companies issuing the annual financial statements entirely and (c) the manufacture companies issuing financial statements in rupiah currency (Rp).

This research employs retained earning to total equity (RE/TE) as the independent variable. The dependent variable in this research is dummy variable namely 1 for a company which pays dividend and 0 for a company which not pay a dividend. Also, this research employs profitability (ROA), sales growth (SGR) and firm size (Ln TA) as control variables.

The processing technique and data analysis of a company's life-cycle calculation

The research sample will be first classified into the life-cycle stages by sales growth rate with the following formula:

$$\text{Sales Growth} = (\text{Sales} - \text{Sales}_{t-1}) \frac{1}{\text{Sales}_{t-1}} \times 100\%$$

Information:

Sales_t = sales on t year

Sales_{t-1} = sales on t-1 year

After understanding the sales growth rate of each company in each year observation, thus it is classified into the start-up stage. If the companies have sales growth of more than 40%, it is classified into a growth stage if sales growth is between 20% and 40%, it is classified into the mature stage if the sales growth is between 1% and 20 and in the decline stage if the company's sales growth is less than 1%. In this research, I employ the regression analysis of qualitative response namely the regression with the dependent variable as binary or dichotomy.

This study employs number 1 if the company pays dividend and 0 if the company does not pay a dividend. In this research model where Y is qualitative, thus the primary goal to be achieved is to obtain the event probability such as the firm paying a dividend. There are three approaches of the probability model of the binary response variable, i.e., the linear probability model, logit model and probit model.

Multicollinearity Test

Multicollinearity appears due to the use of several independent variables and there is a linear relationship between the independent variables. According to Ghazali and Ratmono (2013) multicollinearity can be detected from: (1) high R² values but few (even none) significant independent variables, (2) the correlation between two independent variables more than 0.80, (3) the tolerance value and variance inflation factor value (VIF).

Regression Test Model

The research equation is as follows:

Model I

$$\begin{aligned}
 DIV_{it} &= \ln \left[\frac{Pi}{1 - Pi} \right] \\
 &= \alpha_{it} + \beta_1 RE/TE_{it} + \beta_2 ROA_{it} + \beta_3 SGR + \beta_4 SIZE + \epsilon_{it}
 \end{aligned}$$

To examine the propensity of the company to pay dividends at the start-up, growth, mature and decline stages with a certain RE/TE level of 2005 to 2016.

Model II

$$\begin{aligned}
 DIV_{it} &= \ln \left[\frac{Pi}{1 - Pi} \right] \\
 &= \alpha_{it} + Y_1 RE/TE_{it} + Y_2 ROA_{it} + Y_3 SGR + Y_4 SIZE + \epsilon_{it}
 \end{aligned}$$

To examine the company's propensity to pay dividends at the start-up, growth, mature and decline stages with a certain RE/TE level before the global crisis from 2005 to 2008.

Model III

$$\begin{aligned}
 DIV_{it} &= \ln \left[\frac{Pi}{1 - Pi} \right] \\
 &= \alpha_{it} + \lambda_1 RE/TE_{it} + \lambda_2 ROA_{it} + \lambda_3 SGR + \lambda_4 SIZE + \epsilon_{it}
 \end{aligned}$$

Information:

- DIV = Variabel dummy, Propensity to pay 1, Not propensity to pay 0
- α_{it} = Constanta
- β = Independen variable coefficient in 2005-2016
- Y = Independen variable coefficient in 2005-2008
- λ = Independen variable coefficient 2009-2016
- RE/TE = Retained earning to total equity
- ROA = Firms profitability
- SGR = Sales growth
- SIZE = Firm size (Ln of total assets)
- ϵ_{it} = Error
- i = Firm
- t = Time

To examine the company's propensity to pay dividends at the start-up, growth, mature and decline stages with a certain RE/TE level after the global crisis from 2009 to 2016.

Hypothesis Testing

The hypothesis testing is useful to examine whether the regression coefficient obtained is significant, it means the regression coefficient value is not statistically equal to zero (Nachrowi & Usman, 2006). The significance test approach is employed as a complement to the interval model of a hypothesis test. In this research, hypothesis testing to regression coefficient uses z statistic value.

RESULT AND DISCUSSION

Before conduct hypothesis testing, I select the estimation models such as linear probability model, logit model and probit model approaches. From the statistical result test thus I employ logit model approach for all stages in 2005 to 2016. While in the pre-crisis start-up stage is tested by

Table 3. Hypothesis Testing of Each Firms Life-cycle

Variable	Overall (2005-2016)		Pre Crisis (2005-2008)		Post Crisis (2009-2016)	
	Coefficient	Odds	Coefficient	Odds	Coefficient	Odds
Start-up						
RETE	1.288435	3.62710	2.777696	16.0819	.498977	1.6470
ROA	5.028616	152.72100	.497400	1.6444	5.552071	257.7710
SGR	-1.613743	.19910	-.822050	.4393	-2.612571	.07330
SIZE	.209043	1.23250	.210070	1.2338	0.086851	1.09073
Growth						
RETE	.973272	2.6465	.561176	1.7527	1.406633	4.082100
ROA	10.057447	23329.5700	4.781709	119.3080	6.289762	539.025000
SGR	-5.629509	.0036	-2.417268	.0891	-8.112178	.000003
SIZE	.474737	1.6076	.339000	1.4035	.249761	1.283700
Mature						
RETE	1.535247	4.6425	1.580752	4.8586	1.5568052	4.74360
ROA	10.934270	56065.1670	10.459150	34861.9060	11.7286790	124079.65200
SGR	.688278	1.9903	1.043656	2.8396	-.4359980	1.54650
SIZE	.547363	1.7287	.451264	1.5703	.6343384	1.88580
Decline						
RETE	.198514	1.2196	.756882	2.1316	-.010990	.98900
ROA	8.485432	4843.6700	5.672586	290.7850	10.246540	28184.85300
SGR	4.822561	124.2830	.173592	1.1896	6.559112	705.64500
SIZE	.473522	1.6065	.204638	1.2271	.539221	1.71467

the logit model, growth by probit model, mature by the logit model and decline by the logit model. While after crisis start-up stage uses the probit model, the growth stage uses the probit model, the mature use logit model and the decline uses logit model.

Furthermore, the multicollinearity test conducted and all variables which selected in multicollinearity test, thus it can be tested to the standard assumption. While the hypothesis test of each stage in 2005 to 2016, before crisis 2005 to 2008 and after the crisis of Subprime Mortgage in 2009-2016 are as Table 3.

Based on Table 3, it shows that at the start-up stage during observation period 2005 to 2016 constant $\alpha = -6.585302$. It means the company's propensity with RE/TE, ROA, SGR and SIZE that is considered constant have a tendency not to pay dividends. While odds show the average opportunity of dividend policy influenced by the dependent variable, thereby, if other variables are considered constant, thus the company's propensity to pay cash dividends is more significant of 3.62710 for the increase of 1% RE/TE. The company's propensity to pay cash dividends is bigger of 152,72150 for the increasing of each 1%

ROA. If other variables are considered constant, then the company's propensity to pay cash dividend decreases by 0.1991 times for each unit of SGR change. While the company's propensity to pay cash dividends is bigger of 1.2325 times for the increasing of each 1% SIZE.

At the growth stage, the constant $\alpha = -12.635829$. It means the company's propensity with RE/TE, ROA, SGR and SIZE that is considered constant have a tendency not to pay dividends. If other variables are considered constant, thus the company's propensity to pay cash dividends is bigger of 2.6465 for the increasing of each 1 % in RE/TE. The company's propensity to pay cash dividends is 23329.5715 times for the increase of 1% ROA. It means, if other variables are considered constant, then the company's propensity to pay cash dividends decreases by 0.0036 times for each unit of SGR change. If other variables are considered constant, then the company's propensity to pay cash dividends is bigger of 1.6076 times for the increasing of each 1% SIZE.

At the mature stage, the constant $\alpha = -16.3009$. It means the company's propensity with RE/ TE, ROA, SGR and SIZE that is considered

constant have a tendency not to pay dividends. It means, if other variables are considered constant, then the company's propensity to pay cash dividends is bigger of 4.6425 times for the increasing of each 1 % RE/ TE. The company propensity to pay cash dividend is bigger of 56065.167 times for the increase of 1 % ROA. The company's propensity to pay cash dividends is bigger of 1.9903 times for the increasing of each in SGR. It means, if other variables are considered constant, thus the company's propensity to pay cash dividends is bigger of 1.7287 times for the increasing of each 1% SIZE.

At the decline stage, the constant $\alpha = -14.047778$. This means that companies' propensity with RE/ TE, ROA, SGR and SIZE that considered constant have a tendency not to pay dividends. It means, if other variables considered constant, thus the company's propensity to pay cash dividends is bigger of 1.2196 times for the increasing of each 1 % in RE/ TE. The company's propensity to pay a cash dividend is bigger of 4843.690 times for the increasing of each 1% in ROA. It means, if other variables are considered constant, the company's propensity to pay cash dividends is bigger of 124.283 times for the increasing of each 1% in SGR. While the company's propensity to pay cash dividends is 1.6056 times for the increasing of each 1% SIZE.

Pre-crisis testing in 2005 to 2008 of the start-up stages shows that the constant $\alpha = -7.63408$. This means a company's propensity with RE/ TE, ROA, SGR and SIZE that considered constant have a tendency not to pay dividends. This means that, if other variables are considered constant, so the probability to pay cash dividends is bigger of 1.3202 times for the increasing of each 1 % in RE/ TE. The company's propensity to pay cash dividends is bigger of 1.6444 times for the increasing of each 1% ROA. The company's propensity to pay a cash dividend decreased by 0.4393 times for each unit of SGR change. This means, if other variables are considered constant, so the company's propensity to pay cash dividends is bigger of 1.2338 times for the increasing of each 1% SIZE.

At the growth stage, it is known that the constant $\alpha = -9.105918$. This means that the company's propensity with RE/ TE, ROA, SGR and SIZE that are considered constant have a tendency not to pay dividends. It means if other variables are considered constant, the company's propensity to pay cash dividends is bigger of 1.7527 times for the increasing of each 1% in RE/ TE. The company's propensity to pay cash dividends is 119,308 times for the increasing of each

1% in ROA. The company's propensity to pay a cash dividend decreased by 0.0891 times for each unit of SGR change. It means if other variables are considered constant, so the company's propensity to pay cash dividends is bigger of 1.4035 times for the increasing of each 1% SIZE.

At the mature stage, it is known that the constant $\alpha = -13.3571$. This means that the company's propensity with RE/ TE, ROA, SGR and SIZE that are considered constant have a tendency not to pay dividends. This means if other variables are considered constant, then the company's propensity to pay cash dividends is greater of 4.8586 times for the increasing of each 1% RE/ TE. The company's propensity to pay cash dividend is greater of 34861.906 times for the increasing of each 1% ROA. The company's propensity to pay cash dividends is greater of 2.8396 times for the increasing of each 1% SGR. It means if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 1.5703 times for the increasing of each 1% SIZE.

At the decline stage, it is known that the constant $\alpha = -7.20171$. This means that the company's propensity with RE/ TE, ROA, SGR and SIZE that are considered constant have a tendency not to pay dividends. It means if other variables are considered constant, then the company's propensity to pay cash dividends is greater of 2.1316 times for the increasing of each 1% RE/ TE. The company's propensity to pay cash dividend is greater of 290.785 times for the increasing of each 1% ROA. The company's propensity to pay cash dividends is greater of 1.1896 times for the increasing of each 1% SGR. It means if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 1.2271 times for the increasing of each 1% SIZE.

Besides, after the Subprime Mortgage crisis in 2009 to 2016 at the start-up stage shows that the constant $\alpha = -1.9419410$. It means that the company's propensity with RE/ TE, ROA, SGR and SIZE that are considered constant have a tendency not to pay dividends. This means if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 1.6470 times for the increasing of each 1% RE/ TE. The company's propensity to pay cash dividends is greater of 257.771 times for the increasing of each 1% ROA. The company's propensity to pay cash dividend decreased by 0.0733 times for each unit of SGR change. This means that, if other variables are considered constant, then the probability to pay cash dividends is gre-

ater of 1.09073 times for the increasing of each 1% SIZE.

At growth stage, it is known that constant $\alpha = -5.993277$. It means that the company's propensity with RE/ TE, ROA, SGR and SIZE considered constant have a tendency not pay dividends. This means, if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 4.0821 times for the increasing of each 1% RE/ TE. It means if other variables are considered constant, so the company's propensity to pay cash dividends is 539.025 times for the increasing of each 1% ROA. It means if other variables are considered constant, so the company's propensity to pay cash dividend decreases by 0.000003 times for each unit of SGR change. It means if other variables are considered constant, so the company's propensity to pay cash dividends is greater 1.2837 times for the increasing of each 1% SIZE.

At the mature stage, it is known that constants $\alpha = -18.818166$. This means the company's propensity with RE/ TE, ROA, SGR and SIZE that is considered constant have a tendency not to pay dividends. It means if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 4.7436 times for the increasing of each 1% RE/ TE. This means if other variables are considered constant, so the company's propensity to pay cash dividends is greater of 124079.652 times for the increasing of each 1% ROA. This means if other variables are considered constant, so companies' propensity to pay cash dividends decreases 1.5465 times for each one-unit change of SGR. This means if other variables are considered constant, so companies' propensity to pay cash dividends is greater 1.8858 times for the increasing of each 1% SIZE.

At the decline stage constant $\alpha = -15.8054$. This means the company's propensity with RE/ TE, ROA, SGR and SIZE that is considered constant have a tendency not to pay dividends. This means if other variables are considered constant, so the company's propensity to pay cash dividend decreases by 0.9890 times for each one-unit change of RE/ TE. This means if other variables are considered constant, so the company's propensity to pay cash dividends is greater 28184.853 bigger for the increasing of each 1% ROA. This means if other variables are considered constant, so the company's propensity to pay cash dividends is bigger 705.645 times for the increasing of each 1% SGR. This means that if other variables are considered constant, so the company's propensity to pay cash dividends is 1.71467 times for the increasing of each 1% SIZE.

The Company's Propensity to Pay a Dividend from 2005 to 2016 at Start-up, Growth, Mature and Decline Stages

The resulting test shows that the company's propensity of manufacture companies listed on IDX in 2005 to 2016 to pay dividends at start-up stages is positively and significantly affected by retained earning to total equity (RE/ TE). This study shows the firms that pay dividends in the start-up stage are significantly influenced by the amount of retained earnings to total equity (ROE), return on assets (ROA), sales growth rate (SGR) and firm size. The companies with larger RE/TE levels have higher dividend payout probabilities. At the start-up stage, there are 21 companies pay dividends from total 97 companies.

The companies at the start-up stage have high investment opportunities. It is proved by the average value of sales growth is quite high of 0.64. Cahyaningdyah and Ressany (2012) state the investment opportunity (growth opportunity) negatively affects the dividend decision. The higher investment opportunity requires the high additional fund to finance the investment. Most of the own funds are funded by the loan proceeds, so the earnings obtained by the companies have a tendency to be negative due to the company expenses a lot of cash expenditures for product development, market development and capacity expansion (Gup & Agrawal, 1996).

The large investment expenditure trigger retained earnings to be low thus the dividends paid are relatively small (Ratmono & Indriyani, 2015). Anthony and Ramesh (1992) state at the start-up stage the companies will tend to report negative earnings (negative net income). It is proved by the average of RE/TE at the negative start-up stage of -0.7266, which means more than 100 times the fund of total equity is expensed for investment.

The Negative profits trigger ratio of retained earnings to total equity of a firm at the start-up stage also tend to be negative. However, the probability of dividend payment will enhance in line with the increasing of retained earnings to total equity owned by the company in the start-up stage. It is proved by research data on RICY in 2013 which does not pay a dividend but in 2014 RICY pay the dividend. In that year there was investment opportunities growth (indicated by the increase of sales growth) followed by RE/TE improvement from the previous year. It proves that the companies prefer to employ the available funds to pay dividends.

Furthermore, at the growth stage of the results test shows that company's propensity of

manufacture companies listed on IDX in 2005 to 2016 to pay dividends is positive significantly affected by retained earning to total equity (RE/TE). These findings suggest that firms which pay dividends at the growth stage are significantly influenced by the amount of retained earnings to total equity, return on assets, sales growth and firm size. These findings show the firms that pay dividends at the growth stage are significantly affected by the amount of retained earnings to total equity due to the characteristics of the company at the growth stage, i.e., the company began to enhance sales performance due to it has been able to gain market share. It supports to Enhance profits, liquidity and equity to debt ratio and the company begins to pay dividends. Net income generated by the companies at this stage will be greater than the previous stage (start-up). It is proved by the average of return on assets (ROA) at the growth stage of 0.08 (table 4.3.) is greater than the return on assets (ROA) at the start-up stage of 0.05 (table 4.2). The company probably able to pay a dividend, although it relatively in the small number (Juniarti, 2005).

The companies at the growth stage remain to have a high investment opportunity, so they have a tendency to retain their profits and pay dividends in small number rather than pay a lot of dividends (De Angelo et al. 2006). It is proved from the research data of AUTO 2008, SMSM 2008, TRST 2008, INTP 2012 and ULTJ 2012. In those years there was profitability and the increasing of RE/TE followed by the dividend decision. It proves that at growth stage the company chooses to employ the available funds to pay dividends.

At the mature stage, the resulting test indicates that the probability of manufacture companies listed on IDX in 2005 to 2016 to pay dividends is positively and significantly affected by retained earning to total equity (RE/TE). This study shows the firms that pay dividends at the mature stage are significantly affected by retained earnings to total equity, return on assets, sales growth and firm size. The companies that pay dividends at the mature stage are significantly affected by the amount of retained earnings to total equity due to the companies at this stage have stable of cash flow with slower growth than the overall economy. The more mature of the company will affect to the higher dividends paid by the company. It is proved by the average value of retained earnings to total equity at the mature stage of 0.30 which means the proportion of retained earnings of the company by 30%, while 70% of funds used for investment.

The company's propensity to pay a dividend at the mature stage is greater than in other life cycles (see in Table 4.45). Hence, H_{a1} receives the company's propensity to pay a dividend is positively influenced by RE/TE at the start-up, growth, mature and decline stages and the company's propensity pays a larger dividend is in the mature stage. This is also proved by the research data of UNVR 2010, KAEP 2011, SIPD 2012, TOTO 2013, KLBF 2014, AKPI 2016 and KBLI 2016. In those years there was increasing of RE/TE and decreased the investment opportunity followed by dividend payment. It shows that firms with lower growth rate prefer to use the available funds to pay dividends. This result is in accordance with the life-cycle theory of dividend which suggests that firms that are in the mature cycle stage probably paying a lot of dividends (De Angelo et al., 2006; Coulton & Ruddock, 2011; Ratmono & Indriyani, 2015).

The resulting test at the decline stage shows that the probability of manufacture companies listed on IDX in 2005 to 2016 to pay dividends to manufacture companies listed on IDX is not significantly affected by retained earning to total equity (RE/TE). This finding suggests that firms which pay dividends at the decline stage are not significantly affected by an amount of retained earnings to the total equity. Furthermore, it is significantly influenced by return on assets, sales growth and firm size. It is proved by the value of the probability of return on assets of 0.0002, the value of probability sales growth is 0.0079 and the value of probability firm size is 0.0001 (table 4.46). Each of these probabilities' values are less than $\alpha = 0.05$ at 95% of confidence level.

The characteristics of a company in the decline stage, which has a limited growth opportunity due to increasingly facing more competition, emerging new competitors and products replacement which more efficiency of new technology trigger a low potential market share. It will cause lower sales and earnings as well as decreasing the cash flows from operating activities even estimated to be negative (Juniarti, 2005). The dividend payout in this stage also decrease due to the company is not able to provide dividends with a significant number. It is proved by the research data on the financial statements of CPIN 2005, ADES 2008, TIRT 2008, INAI 2009, JKSW 2011 and ALMI 2015. In those years there was a decline in sales performance that triggers to decrease the profitability even some companies suffered losses, the companies have the tendency not to pay dividends even though RE/TE levels tend to be high. It shows that the companies at

the decline stage have a tendency not to pay dividends due to lower sales and low profitability even though RE/TE levels tend to be high.

Determining the amount of dividend becomes very important due to it affects the number of funds available to enhance the company's value. The Manufacture companies in Indonesia in 2005-2016 employ dividend policy based on the life-cycle theory of dividend. Which is the manufacture companies at the mature stage have a probability of paying a lot of dividends.

The company that pays a dividend has a high RE/ TE level characteristic. It proved that the company has RE/ TE of 0.58 or higher than the company that does not pay a dividend merely -0.03. This research is strongly supported by the assumption of life-cycle theory which state the probability of dividend payment is influenced by retained earnings to total equity, which companies with high retained earnings proportion probably pays a lot of dividends (De Angelo et al., 2006; Coulton & Ruddock, 2011; Thanatawee, 2011; Wardhana et al., 2014; Ratmono & Indriyani, 2015; Putri & Putra, 2017).

The Company's Propensity to Pay Dividend Prior to the Global Crisis of Subprime Mortgage from 2005 to 2008 at the Start-up, Growth, Mature and Decline Stages

The resulting test shows that the propensity of manufacture companies listed on IDX prior to the crisis in 2005 to 2008 to pay a dividend at the start-up stage is positively and significantly influenced by retained earning to total equity (RE/ TE). This study shows the firms which pay dividends in the start-up stage are significantly influenced by the amount of retained earnings to total equity (ROE), return on assets (ROA), sales growth rate (SGR) and firm size. The companies with more substantial RE/TE levels have higher dividend payout probabilities. The companies in the pre-crisis like start-up stage have high investment opportunities. Indriyani and Ratmono (2014) argue that the company as the best candidate to pay a dividend is a massive company with a high level of profitability and low growth opportunities. At the start-up stage, the companies have a tendency not to pay dividends. It is proved by the amount of dividend payout merely 16 %

Meanwhile, at the growth stage of the results test shows that the propensity of the manufacture companies listed on IDX in 2005 to 2008 to pay dividends is significantly affected by retained earning to total equity (RE/ TE). These findings suggest that firms which pay dividends at the growth stage are significantly affected by the

amount of retained earnings to total equity (RE/ TE). At the mature stage, the results test indicate that the propensity of manufacture companies listed on IDX prior to the crisis in 2005 to 2008 to pay a dividend is positively and significantly affected by retained earning to total equity (RE/ TE). This study shows that firms which pay dividends at the mature stage are significantly affected by retained earnings to total equity, return on assets, sales growth and firm size. The companies which pay dividends at the mature stage are significantly affected by the amount of retained earnings to total equity since they have good cash flow and slower growth to the overall economy. The maturity of the company will affect the higher rate of dividends payout.

The company's propensity to pay a dividend at the mature stage is greater to other life cycles. Hence, H_{a2} receives the company's propensity to pay a dividend is positively influenced by RE/ TE in the start-up, growth, mature and decline stages and the company's propensity to pay a lot of dividends is in the mature stage. It is also proved by the research data of AMFG 2005, GGRM 2005, IGAR 2005, MLBI 2005, UNVR 2005, AMFG 2008 and HMSP 2008. In those years the companies have high RE/ TE level, so the companies tend to pay dividends. This result is in accordance with the life-cycle theory of dividend which suggests that firms which are in the mature stage probably paying a lot of dividends (De Angelo et al., 2006; Coulton & Ruddock, 2011; Ratmono & Indriyani, 2015).

The results test at the decline stage indicates that the propensity of manufacture companies listed on IDX prior to the 2005 to 2008 crisis to pay dividends to manufacture companies listed on IDX is not significantly affected by retained earning to total equity (RE/ TE). These findings suggest that firms which pay dividends at the decline stage are not significantly affected by the amount of retained earnings to total equity due to the characteristics of a company. In the decline stage which has a limited growth opportunity because increasingly facing huge competition, emerging newcomer competitors and products replacement with more efficiency of new technology, it reduces potential market share. This limited market share will cause lower sales and earnings performance as well as decreasing cash flows from operating activities even estimated to be negative (Juniarti, 2005). The dividend payout in this stage also decrease due to the company is not able to provide a lot of dividends.

It is proved by the research data on the financial statements which most of the sample

companies have a negative experience of sales growth rate. The decreasing of sales performance trigger to decrease profitability even some companies suffered losses, so companies have a tendency not to pay a dividend even though RE/ TE level tends to be high. The companies at the decline stage have a tendency not to pay dividends due to lower sales and low profitability even though RE/ TE levels tend to be high. It is proved by CPIN 2005, STTP 2005, MLIA 2006 and SCPI 2006 which have a tendency not to pay dividend due to SGR is negative even though with the big RE/ TE.

The Company's Propensity to Pay Dividends after Sub-prime Mortgage Crisis in 2009 to 2016 at the Start-up, Growth, Mature and Decline Stages

The global crisis like subprime mortgage which occurred in 2008 in the United States spread its impact to Indonesia in 2009. Since the weakening of rupiah against US dollar, declining demand for export products and the increasing of commodities price of import raw materials trigger many companies almost bankrupt. It is because the increase in production costs is not matched by sales growth. More than 50% of manufacture companies in the research sample fall into the declining category.

While the resulting test shows that the propensity of manufacture companies listed on IDX during 2009 to 2016 to pay dividends at the start-up stage is not significantly affected by retained earning to total equity (RE/ TE). This study shows that firms which pay dividends in the start-up stage are significantly influenced by the return on assets (ROA). Low RE/ TE levels cause by the low accumulation of retained earnings trigger firms prefer to retain their earnings for post-crisis recovery. At the start-up stage, the companies have a tendency not to pay dividends. It proved by the dividend payout merely 27%. After the crisis, the company remains focused on the company's growth. KBLM 2010, AISA 2011 and CEKA 2011 do not pay dividends due to their high growth rates. When the company has free cash flow, thus the company prefer to reinvest their funds for the company's growth.

In addition, at the growth stage of the resulting test shows that the propensity of manufacture companies listed on IDX during 2009 to 2016 to pay dividends are not significantly affected by retained earning to total equity (RE/ TE). These findings suggest that firms which pay dividends at the growth stage are not significantly influenced by the amount of retained earnings

to total equity (RE/ TE). The companies at the post-crisis growth stage have a tendency to hold their profits for post-crisis business improvement. The declining of sales occurred during the crisis trigger the companies to employ current operating profit to cover losses in the previous period.

At the mature stage, the resulting test shows that the propensity of manufacture companies listed on IDX after the crisis in 2009 to 2016 to pay dividends is positively and significantly affected by retained earning to total equity (RE/ TE). This study shows that firms which pay dividends at the mature stage are significantly affected by retained earnings to total equity, return on assets, sales growth and firm size. The companies which pay dividends at the mature stage are significantly affected by the amount of retained earnings to total equity because they have stable cash flow with slower growth to the overall economy. Thus the crisis does not really affect to the condition of their companies.

The company's propensity to pay dividends at the mature stage is higher to other life cycles in the post-crisis period. Hence, H_3 receives the company's propensity to pay a dividend is positively influenced by RE/ TE in the start-up, growth, mature and decline stages. The probability of a firm to pay the bigger dividend is in the mature stage. It is proved by the research data of ASII 2009, DLTA 2009, MLBI 2010, AMFG 2011, SMGR 2011, LMSGH 2012, GGRM 2014 and DLTA 2016. At that times they have a high level of RE/ TE, so the company tends to pay a dividend. This result is in accordance with the life-cycle theory of dividend which suggests that firms which are in the mature cycle stage probably paying large amounts of dividends (De Angelo et al., 2006; Coulton & Ruddock, 2011; Ratmono & Indriyani, 2015).

Although the manufacture companies become the most affected sectors of the Subprime Mortgage crisis in 2009, since 2011 the sector has gradually shown a positive growth which is driven by the automotive and consumer goods sub-sectors. In addition, the government also had taken several actions to assist the crisis-affected industries among others through figure out the alternative markets outside and within the country, reducing the BI interest rates and tightening imports of finished products. Meanwhile, in the decline stage indicates that the propensity of manufacture companies listed on IDX after the crisis in 2009 to 2016 to pay dividends of manufacture companies listed IDX is not significantly affected by retained earning to total equity (RE/ TE). These findings show that firms which pay dividend

at the decline stage are not significantly affected by amount of retained earnings to total equity, while ROA, SGR and SIZE variables are significantly influencing the dividend payout since the characteristics of companies in the decline stage after crisis had low sales performance particularly in 2009 caused by the depreciation of rupiah against US dollar and low of demand for export products. The limitation of market share trigger to lower earnings and decreasing cash flow from operating activities, even estimated to be negative (Juniarti, 2005). The company is not to be longer to pay dividends due to bankruptcy. It is proved by the research data on the financial statements that the company which pays dividends in the decline stage after a crisis are merely 27% such as AKPI 2009, AUTO 2009 and MLBI 2015 trigger dividend payouts after crisis period.

CONCLUSION AND RECOMMENDATION

Based on the results test and the discussion of this study, it can be concluded that the propensity of manufacture companies listed on IDX in 2005 to 2016 to pay a dividend is positively influenced by RE/ TE in the start-up, growth, mature and decline. It also has the propensity to pay more dividends at the mature stage. Prior to the crisis in 2005 to 2008, the company's propensity to pay dividends was also positively influenced by RE/ TE at the start-up, growth, mature and decline stages and had the probability to pay a lot of dividends at the mature stage. The propensity of manufacture firms listed on IDX after the crisis period from 2009 to 2016 to pay dividends is also positively influenced by RE/ TE in the start-up, growth, mature and decline stages. It has the propensity to pay a lot of dividends at the mature stage. Thereby, it can be concluded that this study supports the firm life-cycle theory of dividend.

Some of the advice from the author after conducting this study are for the future researcher to seek and add the firm-specific factor which gives more influence to dividend and using another group of life cycle, for the management of a company should consider a characteristic in each firm life cycle as a basis to determine the dividend policy and for the investor should adjust their action for the investment decision based on the firm life cycle theory of dividend to generate optimal result in the future.

REFERENCES

- Abiprayu, K. B., & Wiratama, B. (2016). Does Ceo's Hubris Affecting Dividends Payout?. *Jurnal Dinamika Manajemen*, 7(1), 66-75.
- Al-Ajmi, J., & Hussain, A. H. (2011). Corporate Dividends Decisions: Evidence from Saudi Arabia. *The Journal of Risk Finance*, 12(1), 41-56.
- Anita, A., & Yulianto, A. (2016). Pengaruh Kepemilikan Manajerial dan Kebijakan Dividen terhadap Nilai Perusahaan. *Management Analysis Journal*, 5(1), 17-23.
- Anthony, J. H., & Ramesh, K. (1992). Association between Accounting Performance Measures and Stock Prices: a Test of the Life Cycle Hypothesis. *Journal of Accounting and Economics*, 15(2-3), 203-227.
- Cahyaningdyah, D., & Ressany, Y. D. (2012). Pengaruh Kebijakan Manajemen Keuangan terhadap Nilai Perusahaan. *Jurnal Dinamika Manajemen*, 3(1), 20-28.
- Coulton, J. J., & Ruddock, C. (2011). Corporate Payout Policy in Australia and a Test of the Life Cycle Theory. *Accounting & Finance*, 51(2), 381-407.
- DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend Policy and the Earned/ Contributed Capital Mix: a Test of the Life-Cycle Theory. *Journal of Financial Economics*, 81(2), 227-254.
- Djumahir, D. (2010). Pengaruh Biaya Agensi, Tahap Daur Hidup Perusahaan dan Regulasi terhadap Kebijakan Dividen pada Perusahaan Manufaktur di Bursa Efek Indonesia. *Jurnal Manajemen dan Kewirausahaan*, 11(2), 144-153.
- Erfiana, D., & Ardiansari, A. (2016). Pengaruh Masalah Keagenan, Kebijakan Dividen dan Variabel Moderasi Growth Opportunity terhadap Nilai Perusahaan. *Management Analysis Journal*, 5(3), 244-256.
- Fama, E. F., & French, K. R. (2001). Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?. *Journal of Financial Economics*, 60(1), 3-43.
- Ghozali, I., & Ratmono, D. (2013). *Analisis Multivariat dan Ekonometrika: Teori, Konsep dan Aplikasi dengan EVIEWS 8*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gup, B. E., & Agrawal, P. (1996). The Product Life Cycle: a Paradigm for Understanding Financial Management, 41-49.
- Haryanto, S. (2014). Identifikasi Ekspektasi Investor melalui Kebijakan Struktur Modal, Profitabilitas, Ukuran Perusahaan dan GCPI. *Jurnal Dinamika Manajemen*, 5(2), 183-199.
- Imayanti, M. H. (2013). Keterkaitan Teori Siklus Hidup Keuangan dalam Kebijakan Dividen: Studi pada Sektor Ekonomi yang Listing di BEI. *Etikonomi*, 12(1), 33-44.
- Indriyani, D., & Ratmono, D. (2014). Kebijakan Dividen dan Pembelian Kembali Saham: Pengujian Life Cycle Theory. *Diponegoro Journal of Accounting*, 3(2), 1-11.
- Juniarti, J. (2005). Mana yang Lebih Memiliki Value-Relevant: Net Income atau Cash Flows (Studi terhadap Siklus Hidup Organisasi). *Jurnal Akuntansi dan Keuangan*, 7(1), 22-42.
- Kangarlouei, S. J., Hasanzadeh, A., & Motavassel,

- M. (2014). Life-cycle Theory, Free Cash FLOW and Dividend Policy in Firms Listed in Tehran Stock Exchange. *Journal of Commerce and Accounting Research*, 3(1).
- Khafid, M., & Nurlaili, D. (2017). The Mediating Role of Accountability in the Influence of Cooperative Characteristics on its Financial Performance. *International Journal of Economic Research*, 14(5), 191-200.
- Lestari, T. A., & Yulianto, A. (2017). Pengujian Dividend Life Cycle Theory di Indonesia. *Management Analysis Journal*, 6(4), 410-422.
- Mueller, D. C. (1972). A Life Cycle Theory of the Firm. *The Journal of Industrial Economics*, 20(3), 199-219.
- Murhadi, W. R. (2008). Studi Kebijakan Deviden: Anteseden dan Dampaknya terhadap Harga Saham. *Jurnal Manajemen dan Kewirausahaan*, 10(1), 1-17.
- Naufina, A. M., & Rafik, A. (2017). Teka-Teki Kebijakan Dividen pada Perusahaan Manufaktur di Indonesia. *Forum Manajemen Indonesia (FMI)* 9).
- Nachrowi, D. N., & Usman, H. (2006). *Pendekatan Populer dan Praktis Ekonometrika untuk Analisis Ekonomi dan Keuangan*. Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.
- Paramita, R. S. (2015). Free Cash Flow, Leverage, Besaran dan Siklus Hidup Perusahaan: Bukti Kebijakan Deviden di Indonesia. *Jurnal Riset Ekonomi dan Manajemen*, 15(1), 169-181.
- Pashley, M. M., & Philippatos, G. C. (1990). Voluntary Divestitures and Corporate Life-cycle: Some Empirical Evidence. *Applied Economics*, 22(9), 1181-1196.
- Putri, P. A. D., & Putra, I. N. W. A. (2017). Pengaruh Free Cash Flow Perusahaan di Tahap Growth dan Mature pada Kebijakan Dividen. *E-Jurnal Akuntansi*, 20(1), 87-115.
- Ratmono, D., & Indriyani, D. (2015). Determinan Kebijakan Dividen Perusahaan: Pengujian terhadap Teori Siklus Hidup. *Jurnal Dinamika Akuntansi*, 7(1), 52-62.
- Riantani, S., & Nurzamzam, H. (2015). Analysis of Company Size, Financial Leverage and Profitability and its Effect to CSR Disclosure. *Jurnal Dinamika Manajemen*, 6(2), 203-213.
- Roring, R., & Ronni, S. (2014). Pengaruh Biaya Agensi dan Siklus Hidup Perusahaan terhadap Kebijakan Dividen pada Industri Manufaktur. *Finesta*, 2(2), 63-67.
- Sanusi, A. (2017). *Metodologi Penelitian Bisnis*. Jakarta: Salemba Empat.
- Sari, E. L., & Wijayanto, A. (2015). Pengaruh Keputusan Investasi, Pendanaan dan Dividen terhadap Nilai Perusahaan dengan Risiko sebagai Variabel Mediasi. *Management Analysis Journal*, 4(4), 281-291.
- Sari, O. T. (2013). Pengaruh Keputusan Investasi, Keputusan Pendanaan dan Kebijakan Dividen terhadap Nilai Perusahaan. *Management Analysis Journal*, 2(2), 1-7.
- Senchack Jr, A. J., & Lee, W. Y. (1980). Comparative Dynamics in a Life Cycle Theory of the Firm. *Journal of Business Research*, 8(2), 159-185.
- Thanatawee, Y. (2011). Life-cycle Theory and Free Cash Flow Hypothesis: Evidence from Dividend Policy in Thailand. *International Journal of Finance Research*, 2(2), 52-60.
- Wardhana, L., Tandililin, E., Lantara, I. W., & Junarsin, E. (2014). Dividend Policy in Indonesia: a Life-Cycle Explanation. *Asian Finance Association (AsianFA) 2014 Conference Paper*.
- Wijayanto, A. (2010). Analisis Pengaruh ROA, EPS, Financial Leverage, Proceed terhadap Initial Return. *Jurnal Dinamika Manajemen*, 1(1), 69-78.
- Yulianto, A., Suseno, D. A., & Widiyanto, W. (2016). Testing Pecking Order Theory and Trade Off Theory Models in Public Companies in Indonesia. *International Journal of Economic Perspectives*, 10(4), 21-28.
- Indonesia Stock Exchange. 2018. *Laporan Keuangan Tahunan yang diaudit pada tahun 2005-2016*. Available at: <http://www.idx.co.id/>. 5 Januari 2018.