FACTORS INFLUENCING DIVIDEND POLICY IN MANUFACTURING COMPANIES

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ABSTRACT

Purpose: *This research aims to analyze and provide empirical evidence on cash position, collateralizable assets and firm's life cycle on dividend policy with firm's size and debt to equity ratio as the control variables.* **Methodology:** *The population includes manufacturing companies listed on Indonesia Stock Exchange and The Philippines Stock Exchange during the period of 2015-2017. The total samples of 144 were gathered from Indonesia and 81 samples were gathered from Philippine. To analyze the data, a quantitative data analysis method was used and to calculate the data, statistical method with Eviews application was used which consists of descriptive statistic test, classical assumption test, panel data regression, and the hypothesis testing.* **Findings:** *the results revealed that cash position has a significant effect on dividend policy on both Indonesian samples and Philippine samples. Whereas, collateralizable assets, firm's life cycle, firm's size, and debt to equity ratio do not have significant effects on dividend policy on both Indonesian and Philippine. It is recommended that future research add the number of company samples from other industries, not only manufacturing. It is also suggested to use company samples from other countries outside the scope of this research, and to increase the number of observed data by expanding the observed years. Additionally, it is also suggested to add other variables such as growth rate, market to book value, investment opportunity set that may potentially affect dividend policy.* **Value:** *comparison of determinants of dividend policy in Indonesia and Philippine.*

Keywords: dividend policy, firm's life cycle, manufacturing company.

1. INTRODUCTION

The development of economy opens up opportunities for investors to invest money and capital with the expectation of gaining mutual benefits; one of which is receiving dividends. In addition to receiving dividends as the primary benefits, investors are also entitled to incomes generated from the variance of selling price and purchase price of the shares. To determine dividend payout amount, a company must take several factors into account, such as the level of company's health, the level of capital adequacy, funding needs for company's operational activities, working capital and business development. This may lead to differences of interests between the shareholders and the company's management. The shareholders consider that cash dividend as the rate of return on their investment in the form of shares ownership in which they would expect higher and stable dividend payout, while the company's management considers cash dividend as cash outflows that reduce company's cash, in that they prefer to retain the profits as an internal source of funding.

Dividend policy is one of the monitoring mechanisms executed by shareholders to company's management. Thus, each company should have a dividend policy which is aimed at mitigating conflict of interests between the shareholders and the company's management, especially in the use of company profits. Company's dividend policy can be shown through dividend yield and dividend payout ratio. These policies would affect shareholders' decision to invest, on one side. On the other side, they would affect company's financial performance and condition. The amount of dividend payout ratio is determined based on company's financial performance. If the company's financial performance is good, then the company would be able to determine the amount of dividend payout ratio which meet the shareholders' expectations and without overlooking company's interests in staying healthy and maintaining growth.

There are several factors that may affect dividend policy, including company's liquidity level. Company's liquidity level can be measured using cash position ratio, as it shows how strong the company's cash position is proxited with the total ratio of company's cash to company profits. The company's cash or liquidity position is a determinant factor that should be taken into consideration before making decision on the amount of dividend that will be paid out to the shareholders. Since a dividend is cash outflow, the stronger the company's cash or liquidity position is, the bigger its ability to pay out dividends. This argument is further supported by (Indayani, 2013) who found that company's cash position has a significant effect on dividend policy.

Company's life cycle is proxited with the ratio of retained earnings to total equity (RETE) of a company. A company with high RETE ratio is in the stage of mature or well-established level, thus making the company having to pay out high dividends as a consequence. On the contrary, a company with low RETE ratio is in the early stage of growth, thus the company tends to retain its profits rather than distributing the dividends. This is due to the fact a company with an early high growth rate takes up huge funding sources emanated from retained profits. This argument is supported by (Roring and Ronni, 2014) who discovered that company's life cycle has a significant effect on dividend policy. The company with high collateralizable assets has low agency problem between the shareholders and the creditors. The level of collateralizable assets is proxited with the total ratio of fixed asset to total assets of a company which reflect company's ability to obtain external financing sources. The external funding sources may affect the rate of dividends paid out to shareholders in the use of company profits, company's management may increase the amount of dividend payments, without having to interfere with company's operational activities. This argument is supported by (Natalia, 2017) who maintained that collateralizable assets have a significant effect on dividend policy.

The proxy of debt to equity ratio was used as a control variable to indicate whether company's leverage rate has an effect on management's decision in determining dividend policy. Debt can affect the distributed dividends as it can be used for funding company's operational activities and thus allows the company to maximize dividend payout in the use of company profits. On the other hand, high debt makes the company reduce its profits as a consequence to debt repayment with interest, which consequently lead to low dividend payout. Another control variable is firm's size. Large-scale companies tend to pay out higher dividends. The population of this research is comprised of manufacturing companies listed on Indonesia Stock Exchange (IDX) and Philippine Stock Exchange (PSE). The reason behind choosing Indonesia Stock Exchange and Philippine Stock Exchange as the population in this study is that at the macro level, added value of manufacturing sectors on GDP of manufacturing companies in Indonesia and in the Philippines represent stable changes over the years, especially during the period of 2012-2016 which provide a good and secure prospect for investors who want to invest in the manufacturing sectors both in Indonesia and in the Philippines.

Formulation of the Problem

1.   Does cash position have an effect of dividend policy?
2.   Do collateralizable assets have an effect on dividend policy?
3.   Does firm's life cycle has an effect on dividend policy?

2. LITERATURE REVIEW

The dividend signal theory mentions that dividend payout by company's management denotes a signal for investors (Ross, 1997). For shareholders, dividend payouts contain the information of or describe the company's performances, especially regarding company's cash flow in the future, in that it serves as the basis for investors to make a decision in investing. A dividend signal is a model that can be used to explain why the company uses dividends to give a signal despite the company is experiencing losses or limited cash reserves when the dividends are distributed (Bhattacharya, 1979).

The agency theory (Jensen and Meckling, 1976) mentions that an agency relationship is a contract where one or more principals instruct the agents to carry out a service on behalf of the principal and authorize the agent to make the best decision for the principal. Company's management as the agent for the principal should perform actions in favor of shareholders' interests. However, it does not rule out the possibility that the management selfishly pursue their own interests to maximize the utilities, which will potentially lead to agency conflicts. The increased ratio of dividend payouts

might mitigate the conflict between the principal and the agent, as it is a supervisory mechanism executed by shareholders to company's management.

A life cycle theory (DeAngelo et al., 2006) mentions that dividends tend to follow the pattern of company's life cycle. A company at a mature stage tends to pay out high dividends, as in this stage, the company has quantitatively great profits, whereas a company at a growing stage tends to retain the dividends, as in this stage, a company has a high investment opportunity but with limited funds.

(Roring and Ronni, 2014) discovered that the variables of agency costs and company's life cycle have simultaneously significant effects on dividend policy and the variables of debt to equity and company's life cycle partially has an effect on company dividend policy, yet the variables of insider ownership, collateralizable assets, free cash flow, and firm's size have no significant effects on dividend policy. (Destriana, 2016) discovered that cooperatives' cash flows and asset growth have effects on dividend policy, but ROE, company size, debt to total assets, company's life cycle, assets rotation and collateralizable assets have no effects on dividend policy.

(Dwiyanti and Rahadian, 2017) discovered that government-owned firms, FCF and life cycle have significantly positive effects on dividend policy while leverage has a significantly negative effect on dividend policy. In the meantime, non-government owned firms, FCF and leverage have significantly negative effects on dividend policy, whereas life cycle has a significantly positive effect on dividend policy. (Novitasari et al., 2013) made a 3 year observation for the period of 2010-2012 and discovered that the variables of cash position, growth, and collateralizable assets have no significant effects on dividend policy, whereas the variables of return on assets and company size have positive and significant effects on dividend policy. While an observation on 5 years data during 2009-2013 discovered that the variables of cash position and collateralizable assets have positive and significant effects on dividend policy, whereas the variables of growth, return on assets, and firm's size have no significant effects on dividend policy.

(Tabari and Shirazi, 2015) revealed that there is a significantly positive relationship between tangible assets, liquidity, growth opportunities, firm's size and dividend payout ratio (dividend policy), whereaa the institutional ownership has a significantly negative relationship with dividend payout ratio (dividend policy) on companies listed on Tehran Stock Exchange (TSE). (Kangarlouei et al., 2013) concluded that that there is a significantly positive relationship between profitability (ROA), leverage, firm's size and dividend policy. Additionally, there is a significantly negative relationship between investment opportunities, company's life cycle and dividend policy. It is concluded that there is no significant effect between FCF and dividend policy. (Hassonn et al., 2016) found that

profitability and firm's size have significantly positive effects on dividend policy, while financial leverage and asset structure have significantly negative effect on dividend policy.

Cash position is an utmost important factor that should be taken into consideration before deciding to determine the amount of dividends paid out to shareholders. Companies with higher cash position will have higher ability to make dividend payouts. This theory is further strengthened by (Indayani, 2013) who found that cash position has a significantly positive effect on dividend policy. Conversely, (Pribadi, 2012) and (Sholikhah, 2017) found that cash position has a significantly negative effect on dividend policy. This is due to the fact the company's cash is primarily allocated to investment fundings. However, (Firmanda, 2015) discovered that cash has no effect on dividend policy.

H1 : Cash position has a significant effect on dividend policy of manufacturing companies listed on IDX.

H4 : Cash position has a significant effect on dividend policy of manufacturing companies listed on PSE.

Collateralizable assets reflect company's ability in gaining financing sources from creditors. A company with high collateralizable assets is likely to pay out high dividends. (Tabari, 2015) discovered that collateralizable assets have a significantly negative effect on dividend policy, while (Novitasari, 2013) found that collateralizable assets have a significantly positive effect on dividend policy. However, (Roring, 2014), and (Apriliani, 2017) revealed that collateralizable assets have no effect on dividend policy.

H2 : Collateralizable Assets have a significant effect on dividend policy of manufacturing companies listed onIDX.

H5 : Collateralizable assets have a significant effect on dividend policy of manufacturing companies listed onPSE.

Firm's life cycle reflects company development which shows the maturity level of a company and company's ability in managing company profits. The larger the value of the company's life cycle reflects the company's position in a well-established stage, which thus allows the company to retain its profits for high dividend payout. (Roring, 2014) discovered that company's life cycle has a significant effect on dividend policy. (Kangarlouei et al., 2013) revealed that company's life cycle has a negative effect on dividend policy. Nonetheless, the result is contradictory to the findings of (Destriana, 2016) and (Sutrisno, 2017) which concluded that company's life cycle does not have an effect on dividend policy.

H3 : Firm's Life Cycle has a significant effect on dividend policy of manufacturing companies listed on IDX.

H6 : Firm's Life Cycle has a significant effect on dividend policy of manufacturing companies listed on PSE.

3. RESEARCH METHODOLOGY

This research used quantitative data collected from secondary data. The secondary data were obtained from time-series data in the form of audited company's financial statements during the period of 2015-2017, which is derived from Indonesia Stock Exchange website (idx.co.id) and Philippine Stock Exchange website (pse.com.ph). The population of this study is comprised of all manufacturing companies listed on the Indonesia Stock Exchange (IDX) and Philippine Stock Exchange (PSE). Purposive sampling technique was used to determine samples of the research. Below are observed data samples of manufacturing companies listed on IDX.

Table 1 Results of IDX Sampling

No.	Criteria	Samples Per Year	Total Samples
1.	Manufacturing companies consistently listed on IDX in 2015-2017	149	447
2.	Manufacturing companies that do not issue audited financial statements and ended on 31 December during the period of 2015-2017	(20)	(60)
3.	Company that uses currencies other than Rupiah (IDR)	(26)	(78)
4.	Company that fails to pay out dividends during the period of 2015-2017	(55)	(165)
	Total samples in use	48	144

Source: Processed Data

Below are observed data samples of manufacturing companies listed on PSE.

Table 2 Results of PSE Sampling

No.	Criteria	Samples Per Year	Total Samples
1.	Manufacturing companies consistently listed on PSE during 2015-2017	70	210

No.	Criteria	Samples Per Year	Total Samples
2.	Manufacturing companies that do not issue audited financial statements and ended on 31 December during the period of 2015-2017	(14)	(42)
3.	Company that uses currencies other than Philippine Peso (PHP)	(7)	(21)
4.	Company that fails to pay out dividends during the period of 2015-2017	(22)	(66)
	Total samples in use	27	81

Source: Processed Data

Variables and Definition of Operational Variables

1. **The dependent variable** is dividend policy measured by *dividend payout ratio*.

$$\frac{Total\ Dividend}{Net\ Income\ (Loss)}$$

2. **The Independent variables** include cash position, collateralizable assets, and firm's life cycle.

a) *Cash position*

$$\frac{Cash\ Balance}{Nett\ Profit\ (Loss)\ after\ tax}$$

b) *Collateralizable assets*

$$\frac{Fixed\ Assets}{Total\ Assets}$$

c) *Firm's life cycle*

$$\frac{Retained\ Earnings}{Total\ Equity}$$

3. **The control variables include** firm's size and debt to equity ratio.

a) *Firm's size* is measured with natural log of the total assets.

$$Ln\ Total\ Assets$$

b) *Debt to equity ratio*

$$\frac{TotalDebt}{Total\ Equity}$$

To analyze the data, a quantitative data analysis method was used and to calculate the data, statistical method with Eviews application was used which consists of:

1.   Descriptive Statistic Test. Descriptive statistic analysis was used to give the picture of and describe the data on the variables in this research including dependent variables, independent variables and control variables in manufacturing companies listed on IDX and PSE for the period of 2015-2017.

2.   Classical Assumption Test. The classical Assumption Test was conducted in the forms of normality test, multicolinearity test, and heteroscedasticity test.

3.   Panel Data Regression Analysis. The panel data regression analysis for the test in this research used random effect model with the following equations:

Manufacturing companies listed on IDX

$$Y_1 = \alpha + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 c_1 + b_5 c_2 + e$$

Remarks:

Y_1 = *Dividend Payout Ratio (DPR)*

α = *Intercept*/constanta

b_1-b_5 = Regression Coefficient of independent variable

x_1 = *Cash Position (CP)*

x_2 = *Collateralizable Assets (COLLAS)*

x_3 = *Firm's Life Cycle*

c_1 = *Firm's Size*

c_2 = *Debt to Equity Ratio* (DER)

e = *error*

Manufacturing companies listed on PSE

$$Y_2 = \alpha + b_1 x_4 + b_2 x_5 + b_3 x_6 + b_4 c_3 + b_5 c_4 + e$$

Y_2 = *Dividend Payout Ratio (DPR)*

α = *Intercept*/constanta

b_1-b_5 = Regression Coefficient of independent variable

X_4 = *Cash Position (CP)*

X_5 = *Collateralizable Assets (COLLAS)*

X_6 = *Firm's Life Cycle*

C_3 = *Firm's Size*

C_4 = *Debt to Equity Ratio* (DER)

e = *error*

The hypothesis was tested using coefficient of determination (R2), F statistics test and t statistics test.

4. RESULTS AND DISCUSSION

The results of descriptive statistics test on the sample data of manufacturing companies listed on IDX and PSE are presented in table 3 below:

Table 3 Descriptive Statistics in Indonesia and Philippine for the period of 2015-2017

Descriptive Statistics - Indonesia						
	DPR (Y1)	CP (X1)	COLLAS (X2)	FLC (X3)	SIZE (C1)	DER (C2)
Mean	0.497709	1.851638	0.358203	0.602989	15.08005	0.833531
Median	0.414044	1.589005	0.318645	0.603494	14.77049	0.558233
Maximum	3.653645	28.78093	0.796561	0.992557	19.50467	4.546883
Minimum	-0.604754	-58.82298	0.035696	0.025476	11.80397	0.076125
Std. Dev.	0.525726	6.618912	0.174637	0.290637	1.646309	0.806846
Observations	144	144	144	144	144	144
Descriptive Statistics - Filipina						
	DPR (Y2)	CP (X4)	COLLAS (X5)	FLC (X6)	SIZE (C3)	DER (C4)
Mean	0.332892	2.591192	0.298112	0.490658	24.09729	1.049501
Median	0.341227	1.552939	0.301336	0.457236	23.87427	0.830851
Maximum	2.352276	42.36467	0.676937	0.871012	26.62977	3.075599
Minimum	-4.995163	0.261948	0.015568	0.156664	20.72329	0.140445
Std. Dev.	0.830101	5.044832	0.187839	0.208567	1.506901	0.752592
Observations	81	81	81	81	81	81

Source: Data processing results using Eviews 10

From the Indonesian descriptive statistic data, the following findings were revealed. Data of the dependent variable of dividend payout ratio has mean or average value of 0.497709, which means that the average dividend to be paid by 144 companies in the observed sample data is 49.77% compared to the total net profits which can be attributed to parent entity owner. Companies with a maximum value in the percentage of DPR is PT Jembo Cable Company Tbk. in 2015 during which at the period, INTP distributed dividends nearly four times bigger than the net profit and the company with a minimum value in the percentage of DPR is PT Indomobil Sukses International Tbk. in 2015 as the company still had to distribute dividends despite their losses.

The average percentage of cash on net profits is 185%, where the company cash is 85% bigger than its net profits. The company that has the highest percentage of CP with the maximum value is PT

Jembo Cable Company Tbk. in 2015. Whilst the company that has the lowest percentage of CP is PT Indomobil Sukses International Tbk. in 2015.

The average collateralizable asset is 35.82%. The company with maximum percentage value of collateralizable assets is PT Semen Baturaja (Persero) Tbk. in 2016 by 79.66%, while the company that has minimum value is PT Duta Pertiwi Nusantara Tbk. in 2017 by 3.57%.

The average company's life cycle is 60.3%. The company that has the maximum value in firm's life cycle is PT Sepatu Bata Tbk. in 2017 by 99.3%. It can thus be concluded that BATA is one of the financially mature companies. The company that has the minimum value is PT Fajar Surya Wisesa Tbk. in 2015 by 2.5%.

Data of the control variable of firm's size indicated mean value of 15.08005, median value of 14.77049, maximum value of 19.50467, minimum value of 11.80397, and standard deviation of 1.646309. The company that has a maximum value on firm's size is PT Astra International Tbk. in 2017. The company that has a minimum value on firm's size is PT Lionmesh Prima Tbk. in 2015.

Data of the control variable of debt to equity ratio indicated mean value of 0.833531, median value of 0.558233, maximum value of 4.546883, minimum value of 0.076125, and standard deviation of 0.806846. The company that has maximum value in DER proxy is PT Indal Aluminum Industry Tbk. in 2015, which indicated that the company has debt four times bigger than the company's total equity. The company that has a minimum value in DER proxy is PT Industri Jamu and Farmasi Sido Muncul Tbk in 2015, which indicated that that the company has the capability to pay off its debt using existing capital or equity.

From the descriptive statistics data on Philippines samples, several findings were revealed as follows. Data of the dependent variable of dividend payout ratio has mean or average value of 0.332892, which indicated that the average dividend paid out by 81 observed sample companies is 33.3% compared to total net profit which can attributed to parent entity owner. The company that has a maximum value in DPR percentage is Holcim Philippines, inc. in 2017, during which at the period HLCM distributed dividends two times bigger than the net profit and the company that has a minimum value in DPR percentage is Alsons Consolidated Resources, inc. in 2017 as the company still had to distribute dividends despite their losses.

Data of the independent variable of cash position indicated that the average percentage of cash on net profit in 81 sample companies during the period of 2015-2017 is 259%. The company that has the highest CP percentage with a maximum value is Alsons Consolidated Resources, inc. in 2017. While the company that has the lowest CP percentage is Century Pacific Food, inc. in 2016.

The data of independent variable of collateralizable asset indicated mean value of 0.298112, median value of 0.301336, maximum value of 0.676937, minimum value of 0.015568, and standard

deviation of 0.187839. The company that has a maximum value in collateralizable assets percentage is Energy Development Corporation in 2016 which is by 67.7%, whereas the company that has a minimum value in the collateralizable assets percentage is Manila Water Company, inc. in 2015 by 1.56%.

Data of the independent variable of firm's life cycle indicated the average company's life cycle of 81 observed sample companies during the period of 2015-2017, which is 49%. The company that has a maximum value in company's life cycle is Jollibee Foods Corporation in 2016 which is by 87%. Thus, it can be concluded that JFC is one of the financially mature companies. The company that has a minimum value is Crown Asia Chemicals Corporation in 2015 which is by 15.67%.

Data of the control variable of firm's size indicated the average natural logarithm of total company assets in 81 observed sample companies during 2015-2017, which is 24.1%. The company that has a maximum value on firm's size is First Philippine Holdings Corporation in 2017. The company that has a minimum value on firm's size is Crown Asia Chemicals Corporation in 2015.

The control variable data in the form of debt to equity ratio indicates that the average ability of 81 observed sample companies in paying off their debt with equity is 1.05% during the period of 2015-2017. The company that has a maximum value in DER proxy is Manila Electric Company in 2017, which indicated that the company has debt four times higher than its total equity. The company has a minimum value in DER proxy is Mabuhay Vinyl Corporation in 2015, which indicated that the company has the capability to pay off its debt using its capital or equity.

Analysis of Panel Data Regression Model

Chow test was used to determine which model is best between common effect model and fixed effect model.

Table 4 Results of Panel Data Regression Test using *Chow Test* on Indonesian and Philippine Samples

Effect Test	Statistic	d.f.	Prob.
Cross-section F - Indonesia	2.397228	(47,91)	0.0002
Cross-section Chi-square - Indonesia	116.012165	47	0.0000
Cross-section F - Filipina	3.762335	(26,49)	0.0000
Cross-section Chi-square - Filipina	88.888739	26	0.0000

Source: Results of data processing using Eviews 10

Based on Chow test conducted on Indonesian samples, the probability value of $F_{count} < 0.05$, which is 0.0002, thus making fixed effect model as the right model to be used. Chow test conducted on Philippine samples indicated the probability value of $F_{count} < 0.05$ is 0.0000, thus concluding fixed effect model as the proper model.

Hausman test was conducted with the aim of determining which model is best between fixed effect model and random effect model.

Table 5 Results of Panel Data Regression Test using Hausman Test on Indonesian and Philippine Samples

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random - Indonesia	3.677634	5	0.5967
Cross-section random - Filipina	4.158206	5	0.5269

Source: Results of data processing using Eviews 10

Based on Hausman test conducted on Indonesian samples, it was discovered that the probability value of > 0.05 is 0.5967, making random effect model as the proper model to be used. Hausman test conducted on Philippine samples indicated that the probability value of > 0.05 is 0.5269, making random effect model as the proper model to be used.

Lagrange Multiplier Test is the determinant test conducted to determine which model is best between the random effect model and common effect model.

Table 6 Results of Panel Data Regression Test using *LM Test* on Indonesian and Philippine Samples

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan - Indonesia	13.16849	0.099804	13.26830
	(0.0003)	(0.7521)	(0.0003)
Breusch-Pagan - Filipina	16.56156	1.449704	18.01126
	(0.0000)	(0.2286)	(0.0000)

Source: Results of data processing using Eviews 10

Based on LM test conducted on Indonesian samples, the probability value of < 0.05 is 0.0003, thus it can be concluded that the proper model to be used is random effect model. LM test conducted on Philippine samples indicated that the probability value < 0.05 is 0.0000, thus it can be concluded that the proper model is random effect model.
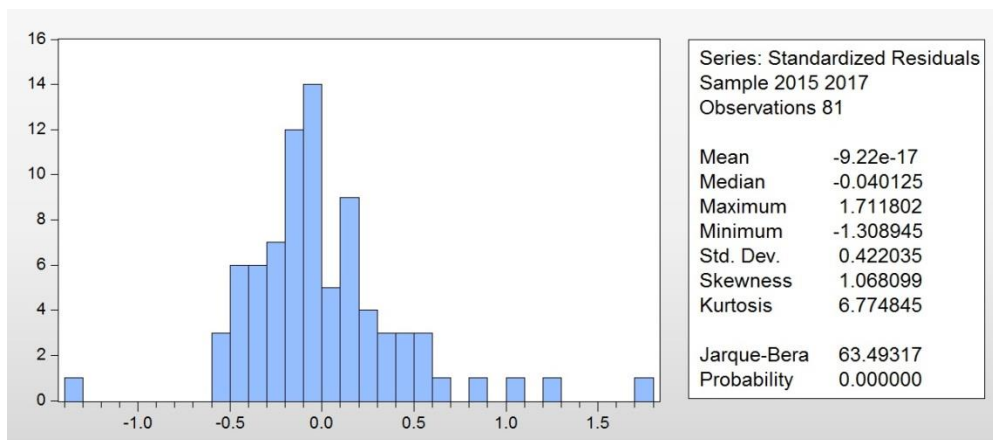
Classical Assumption Test

Normality test uses histogram normality test graph under the criteria if the probability value of Jarque-Bera is > 0.05, then the data are normally distributed.
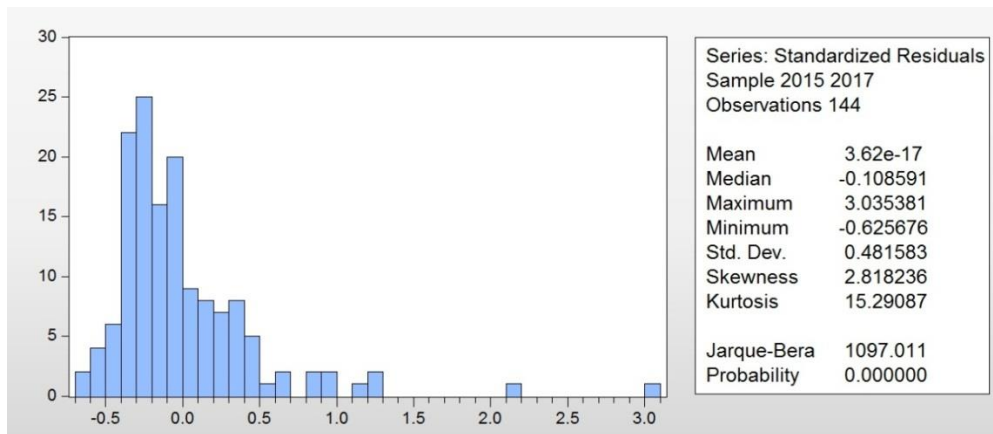
Source: Results of data processing using Eviews 10

Figure 1 Results of Normality Test on Observed Data of Indonesian Samples

Source: Results of data processing using Eviews 10

Figure 2 Results of Normality Test on Observed Data of Philippine Samples

The normality test conducted on Indonesian samples in figure 1 and on the Philippine samples in figure 2 indicated that each probability value of Jarque-Bera < 0.05 is 0.0000. Thus, it can be concluded that the data are not normally distributed.

(Gujarati and Porter, 2009) and (Ekananda, 2016) stated that panel data regression using GLS method has met classical assumption test, thus making the normality test fulfilled. (Gujarati, 2012) explained that the panel data analysis with more than 100 observed objects can be said to have met the normality data, thus it does not require normality test since the error term distribution is close to normal.

Autocorrelation test was conducted using Durbin-Watson test *(D-W).*

Table 7 Results of Autocorrelation Test using Durbin-Watson on Indonesian and Philippine Samples

Indonesia	R-squared	0.179053	Mean dependent var	0.309952
	Adjusted R-squared	0.149308	S.D. dependent var	0.434822
	S.E. of regression	0.401049	Sum squared resid	22.19595
	F-statistic	6.019697	Durbin-Watson stat	1.739904
	Prob(F-statistic)	0.000045		
Filipina	R-squared	0.810283	Mean dependent var	0.158827
	Adjusted R-squared	0.797636	S.D. dependent var	0.684092
	S.E. of regression	0.307738	Sum squared resid	7.102709
	F-statistic	64.06533	Durbin-Watson stat	1.765404
	Prob(F-statistic)	0.000000		

Source: Results of data processing using Eviews 10

Based on the autocorrelation test conducted on Indonesian samples, it was indicated that the value of DW is 1.739904. Under DW test criteria, it was discovered that the d value is 1.739904, du value is 1.78508 with 144 observed samples and five independent variables (including two control variables), and 4-du value is 2.21492. It means that the d value < du, which indicated that there is autocorrelation in the data. (Gujarati and Porter, 2009) and (Ekananda, 2016) stated that panel data regression using GLS method has met classical assumption test, thus making the autocorrelation test fulfilled.

The autocorrelation test conducted on Philippine samples indicated DW value of 1.765404. Under DW test criteria, it was discovered that the d value is 1.765404, du value is 1.74384 with 81 observed samples and 5 independent variables (including in it two control variables), and 4-du value is 2.25616. It means that 1.74384 (du) < 1.765404 (d) < 2.25616 (4-du), which indicated that there is no autocorrelation in the model.

Heteroscedasticity test was conducted using Glejser test.

Table 8 Results of Heteroscedasticity Test using Glejser test on Indonesian and Philippine Samples

Indonesia	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CP	0.008275	0.004844	1.708249	0.0898
	COLLAS	-0.197586	0.182450	-1.082959	0.2807
	FLC	-0.152138	0.118541	-1.283424	0.2015
	SIZE	-0.020866	0.020727	-1.006726	0.3158
	DER	0.058640	0.042869	1.367902	0.1736

	C	0.731400	0.314247	2.327469	0.0214
Filipina	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CP	0.010514	0.006538	1.608179	0.1120
	COLLAS	0.007174	0.250122	0.028684	0.9772
	FLC	-0.059279	0.218066	-0.271842	0.7865
	SIZE	-0.063650	0.040618	-1.567031	0.1213
	DER	0.144900	0.075730	1.913374	0.0595
	C	1.676098	0.882452	1.899365	0.0614

Source: Results of data processing using Eviews 10

Based on heteroscedasticity test conducted on Indonesian samples, each independent variable and control variable has the probability value of more than 0.05. This means that there is no heteroscedasticity in the observed data. The heteroscedasticity test conducted on Philippine samples revealed that each of the independent variables and the control variables have the probability value of more than 0.05, thus it can be concluded that there is no heteroscedasticity in the the observed data.

Multicollinearity test was conducted using correlation matrix.

Table 9 Results of Multicollinearity Test using Correlation Matrix on Indonesian Samples

Correlation Matrix - Indonesia					
	DPR	CP	COLLAS	FLC	SIZE	DER
DPR	1.000000	0.381497	-0.075561	0.021619	-0.008496	-0.011425
CP	0.381497	1.000000	-0.021207	0.072248	-0.252535	-0.210162
COLL	-0.075561	-0.021207	1.000000	-0.064918	0.055717	-0.023637
FLC	0.021619	0.072248	-0.064918	1.000000	0.158906	-0.302517
SIZE	-0.008496	-0.252535	0.055717	0.158906	1.000000	0.099543
DER	-0.011425	-0.210162	-0.023637	-0.302517	0.099543	1.000000
Correlation Matrix - Filipina					
	DPR	CP	COLLAS	FLC	SIZE	DER
DPR	1.000000	-0.859692	-0.095959	0.130935	-0.008697	-0.098856
CP	-0.859692	1.000000	0.191386	-0.188430	0.019766	0.144626
COLL	-0.095959	0.191386	1.000000	-0.073189	0.391108	0.479100
FLC	0.130935	-0.188430	-0.073189	1.000000	0.391148	0.168541
SIZE	0.135929	0.019766	0.391108	0.391148	1.000000	0.697508

| DER | -0.098856 | 0.144626 | 0.479100 | 0.168541 | 0.697508 | 1.000000 |

Source: Results of data processing using Eviews 10

Based on the results of multicolinearity test on Indonesian samples, each independent variables and control variables have the value of correlation matrix < 0.8, thus there is no multicollinearity in the data. The results of multicollinearity test conducted on Philippine samples showed that each independent variables and control variables have the value of correlation matrix < 0.8, thus there is no multicollinearity in the data.

Coefficient of Determination (R^2), F Test, T Test

Based on the test results of coefficient of determination for Indonesian samples, it was discovered that the value of Adjusted R^2 is 0.1493 which indicates that the independent variables and control variables in this research can explain the dependent variables by 14.93%. While the remaining 85.07% is explained by the variables outside the model under study.

The results of F statistic test on Indonesian samples showed that the probability value (F-statistics) is 0.000000. Thus, it can be concluded that all the independent variables of cash position, collateralizable assets, and firm's life cycle along with the control variables including firm's size and debt to equity ratio simultaneously have the effect on dependent variables of dividend policy which is measured by using dividend payout ratio.

Based on the results of coefficient of determination test on the Philippine samples, it was discovered that the value of Adjusted R^2 is 0.7976 which indicates that the independent variables and control variables in this research can explain the dependent variables by 79.76%. While the remaining 20.24% is explained by the variables outside the model under study.

The results of F statistic test on the Philippine samples showed the probability value (F-statistics) is 0.000000. Thus, it can be concluded that all the independent variables simultaneously have effects on the dependent variable of dividend policy.

Based on the results of t statistic test, it was discovered that the results of t test output are as follows:

Table of 10 Results of Panel Data Regression Test using REM on Indonesian and the Philippine Samples

Indonesia	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CP	0.035740	0.006586	5.426794	0.0000
	COLLAS	-0.105007	0.280379	-0.374518	0.7086
	FLC	-0.019382	0.189416	-0.102327	0.9186
	SIZE	0.030070	0.034046	0.883227	0.3786

	DER	0.046596	0.069123	0.674101	0.5014
	C	-0.011470	0.515190	-0.022263	0.9823
Filipina	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CP	-0.148444	0.008412	-17.64679	0.0000
	COLLAS	0.132121	0.433393	0.304854	0.7613
	FLC	-0.265512	0.376966	-0.704339	0.4834
	SIZE	-0.012124	0.070657	-0.171596	0.8642
	DER	0.068150	0.122680	0.555516	0.5802
	C	1.029071	1.536398	0.669795	0.5050

Source: Results of data processing using Eviews 10

Based on table 10, it was discovered that,

a.   Cash position on Indonesian samples has the probability value of 0.0000 which is smaller than the significance level of 0.05. This indicates that the independent variable of *cash position* has a significantly positive effect on *dividend payout ratio*. Thus, it can be concluded that **H1 is accepted**.

b.   Collateralizable assets on Indonesian samples have probability value of 0.7086 which is bigger than the significance level of 0.05. This means that the independent variable of collateralizable assets does not have a significant effect on dividend policy. Thus, **H2 is rejected**.

c.   The life cycle of Indonesian companies has the probability value of 0.9186 which is bigger than the significance level of 0.05. The independent variable of firm's life cycle does not have a significant effect on dividend policy. Thus, it can be concluded that **H3 is rejected**.

d.   The control variable of firm's size on Indonesian samples has the probability value of 0.3786 which is greater than the significance level of 0.05. This means that the control variable of firm's size does not have a significant effect on dividend policy. This result is consistent with Roring's findings (2014).

e.   The control variable of *debt to equity ratio on* Indonesian samples has the probability value of 0.5014 which is bigger than the significance level of 0.05. This shows that debt to equity ratio does not have a significant effect on dividend policy. The result is consistent with Indayani's findings (2013).

f.   Cash position on Philippine samples has probability value of 0.0000 which is smaller than the significance level of 0.05 (5%). This shows that cash position has a significant effect on dividend payout ratio with negative coefficient direction. Thus, it can be concluded that **H4 is accepted**.

g.   Collateralizable assets on Philippine samples have the probability value of 0.7613 which is bigger than the significance level of 0.05 (5%). This shows that the collateralizable assets do not have a significant effect on dividend policy. Thus, **H5 is rejected**.

h.   The Philippines company's life cycle has probability value of 0.4834 which is bigger than 0.05 (5%). This indicates that the firm's life cycle does not have a significant effect on dividend policy. Thus, **H6 is rejected**.

i.   The control variable of firm's size on the Philippines samples has the probability value of 0.8642 which is bigger than the significance level of 0.05. This indicates that the firm's size does not have a significant effect on dividend policy. This result is consistent with Destriana's findings (2016).

j.   The control variable of debt to equity ratio on the Philippine samples has a probability value of 0.5014 which is bigger than 0.05. This shows that debt to equity ratio does not have a significant effect on dividend policy. This result is consistent with Indayani's findings (2013).

Cash position on Indonesian samples has a significantly positive effect on dividend policy. This means that cash position is one of the considerant factors in dividend policy as dividend is cash outflows, where the stronger cash position of the company, the greater the ability of the company to pay out dividends. This is supported by (Indayani, 2013) and (Novitasari, 2013).

Cash position on the Philippine samples has a significant effect on dividend policy with a negative regression coefficient value. A company whose cash increases from the previous period tends to distribute lower dividends, as it wants to retain company cash. A company whose cash decreases can still increase dividend payout. This is due to the fact that company profits do not necessarily reflect the amount of cash flows of the company. This result is consistent with the findings of (Sholikhah, 2017) and (Pribadi, 2012). On the contrary, the results are exactly the opposite with that of (Kangarlouei's *et al.*, 2013) and (Firmanda's, 2015) who discovered that cash position has no effect on dividend policy.

Collateralizable assets on Indonesian and Philippine samples do not have a significant effect on dividend policy. The value of collateralizable asset does not lay the basis for the company to determine the dividends distributed, despite high collateralizable asset represents company's ability to get financing sources from creditors, thus allowing the company to be able to increase dividends distribution without interrupting company's operational activities. However, creditors still have to consider other indicators before lending out their money such as company's profile and debt history. The result is consistent with that of (Apriliani, 2016), (Helmina, 2017), and (Roring, 2014). Conversely, contrary to (Tabari, 2015), (Novitasari, 2013), (Hassonn, 2016), and (Natalia, 2017) revealed that collateralizable assets have a significant effect on dividend policy.

Firm's life cycle does not have a significant effect on dividend policy. The result showed that company's position at a mature stage does not serve as the basis for the company to increase dividends distribution, as it is still considering to use the available profits pay off its debt or make investments. The result is consistent with the findings of (Destriana, 2016) and (Sutrisno, 2017). Conversely, it is the opposite with (Roring, 2014), (Kangarlouei *et al.*, 2013), and (Dwiyanti, 2017) which showed that company's life cycle has a significant effect.

5. CONCLUSIONS

This research was conducted to analyze the effect of the independent variables of cash position, collateralizable assets, and firm's life cycle on dependent variables of dividend policy which is measured using dividend payout ratio with firm's size and debt to equity ratio as the control variables. For sample data on manufacturing companies in Indonesia, several conclusions were drawn as follows.

1. Cash position has a significant effect on dividend policy of manufacturing companies listed on IDX during the period of 2015-2017.

2. Collateralizable assets do not have a significant effect on dividend policy of manufacturing companies listed on IDX during the period of 2015-2017.

3. Firm's life cycle does not have a significant effect on dividend policy of manufacturing companies listed on IDX during the period of 2015-2017.

The testing results on two control variables on Indonesian samples showed that firm's size and debt to equity ratio (DER) do not have significant effects on dividend policy.

For sample data on manufacturing companies in the Philipines, several conclusions were drawn as follows.

1. Cash position has a significant effect on dividend policy of manufacturing companies listed on PSE during the period of 2015-2017.

2. Collateralizable assets do not have a significant effect on dividend policy of manufacturing companies listed on PSE during the period of 2015-2017.

3. Firm's life cycle does not have a significant effect on dividend policy of manufacturing companies listed onPSE during the period of 2015-2017.

The testing results on two control variables on Philipine samples showed that firm's size and debt to equity ratio (DER) do not have significant effects on dividend policy.

This research has several limitations, including:

1. This research was conducted only on manufacturing companies listed on IDX and PSE.

2.	This research had only three independent variables, namely cash position, collateralizable assets, and firm's life cycle, and two control variables of firm's size and debt to equity ratio. This allows other factors that may have an effect on dividend policy to be overlooked.

3.	This research used only three year period data from 2015 to 2017.

The conclusions above lead to the following recommendations for further research. It is recommended that future research add the number of company samples from other industries, not only manufacturing. It is also suggested to use company samples from other countries outside the scope of this research, and to increase the number of observed data by expanding the observed years. Additionally, it is also suggested to add other variables such as growth rate, market to book value, investment opportunity set that may potentially affect dividend policy.

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