Dividend policy of the Jakarta Stock Exchange listed manufacturing company and the underlying factors

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Abstract

The purpose of this study is to analyze whether profitability, liquidity, leverage and firm size affect dividend policy. Dividend provides riskless revenue for shareholders and though according to the theory, dividend, is irrelevant to firm value. Dividend policy is measured by dummy variable, and the underlying factors including profitability which using return on asset to be measured, liquidity that using current ratio, leverage which using total debt to total asset ratio while log natural of total asset is used as measurement of the firm size. Data collection is using purposive sampling with total sample of 61 companies from manufacturing sector companies listed on Indonesia Stock. This study is using binary logistic regression with 299 sample size. The outcome of this study present that dividend policy is significantly associated with profitability and firm size yet have no significantly correlated with liquidity and leverage of the company.
Keywords: dividend policy; profitability; liquidity; leverage; firm size

Abstrak

Studi ini bermaksud untuk menguji apakah profitabilitas, likuiditas, *leverage* dan ukuran perusahaan memiliki pengaruh terhadap kebijakan dividen. Dividen memberikan pendapatan tanpa risiko bagi pemegang saham dan meskipun demikian, namun, menurut teori, dividen tidak relevan dengan nilai perusahaan. Kebijakan dividen di ukur oleh *dummy variable,* faktor-faktor penting yang diamati meliputi; profitabilitas yang di ukur menggunakan *return on asset,* likuiditas di ukur menggunakan *current ratio, leverage* dengan *total debt to total asset ratio* untuk pengukurannya, serta ukuran dari perusahaan yang di aplikasikan melalui log natural dari total aset. Pengumpulan data dilakukan menggunakan metode *purposive sampling* hingga mendapatkan total sampel sebanyak 61 sampel dari perusahaan dibawah sektor manufaktur yang terdaftar di Bursa Efek Indonesia (BEI). Penelitian ini menggunakan *Binary Logistic Regression* dengan ukuran sampel sebanyak 299 sampel. Kesimpulan dari studi ini memberikan hasil bahwa profitabilitas dan ukuran dari perusahaan dapat memberikan pengaruh untuk kebijakan dividen sedangkan likuiditas dan leverage tidak memiliki pengaruh terhadap kebijakan dividen.

INTRODUCTION

Research background

Within the era of globalization, the unavoidable economics competitiveness in remarkably fields of activities in business is follow, whether increasing the amount of shareholder revenue and as the alternative using competitive price while boosting the satisfaction of customer with the product's quality (Kumar & Chandrasekar, 2014). The growth enhancement of economy in Indonesia has the same competitiveness towards it with mass investors who affected in investing their cash with acquire shares in order to earn benefit in dividend and capital return (Muda, 2017). For investors that assumed to earning better with dividend will usually give their attention to the company's dividend policy which regulate the percentage of profit owned by company that will be distributed to investor and profit that will be used by company to reinvestment (Ahmad & Wardani, 2014). With the importance of attracting market and shareholders along with the growth of the company itself, the dividend policy is one of fundamental factor that should receive more attention by the management considering dividend policy has considerable effect for both external and internal side. Looking more to dividend policy, the probability of gaining another investment for company, the financial structure, the stock price, the flow of funding and also the liquidity position could be affected by dividend policy (Nurmala, 2009).

Related to that, dividend provides riskless revenue for shareholders and though according to the theory, dividend, is irrelevant to firm value (Modigliani & Miller, 1961). However, dividend is not mandatory for the firm. It depends on how the firm condition looks like to decide on the dividend payment based on the general meeting of the shareholders. That is one of the firm dividend policy manifestations.

In the literature of corporate finance, dividend policy has always been a worrying and antagonistic issue to discussed, started with a classic work of discussion on dividend by Lintner (1956). There is countless research that has been continuing the discussion about dividend policy with additional of various theory like agency cost theory, signaling theory, bird in the hand theory and also the dividend irrelevance, which have been appeared to solve various question associating to the dividend policy (Kannadhasan *et al.*, 2017). As the result of countless research that follows to discuss dividend policy, several factors from both internal and external side has probability to influence the dividend policy has been found. La Porta *et al* (1998) shows in their research that liquidity, investment opportunities and also profitability are several factors of internal that could affect the dividend policy. DeAngelo *et al.* (2006) has findings that the relation among the dividend policy with profitability, growth, the ratio of earned equity to total equity or total assets, controlling for firm size, dividend history, leverage, and cash balance has significantly high relation. Roy (2015) also has found in his research that company who used percentage of cash and cash equivalent to total asset as their measurement of firm liquidity have significant influence to the dividend policy, whilst its positively influence with growth opportunity. On the opposite sides, Ahmad and Wardani (2014) inspecting the essential factors to dividend policy as for the Indonesia stock exchange stated that dividend policy has correlated significantly positive with profitability and firm size, negatively correlated with leverage and liquidity, yet do not correlatively significant with growth opportunities; but dividend policy has significant correlation with all the variables simultaneously. The research conduct in Polish Listed Companies by Kaźmierska-Jóźwiak (2015) presented that dividend payout ratio has negative correlation with profitability in line with leverage, while in their research, Pinem and Dwi (2016) declared that dividend policy simultaneously affected by sales growth, return of equity, also return on assets but partially, has negatively influence with variables growth, ROA, ROE.

Basely on these observational researches, the focus of this analysis aims to test the aspects that affiliated to the dividend policy. Despite the fact of countless research related to dividend policy has always been a long concern and broadly researched in literature of finance, the outcome of the researches are mostly inconsistent.

LITERATURE REVIEW

According to Gupta (2017), dividends are returns to shareholders for their investment in firms while the dividend policy is then the guidelines. Dividend policy remains one of the key areas of research in finance. It is very important for a company and therefore, as it has impact on the firm value on one hand (Purmessur & Boodhoo, 2009).

As the pioneer of the behavioral pattern of management in deciding dividend policy, Lintner (1956) revealed that management is usually conservative in nature and dividend policy is mostly based on the current yearly earnings, as also the DPR of the previous year, and does not deviate largely from this. Furthermore, the agency theory suggests that there has always been an agent principal conflict for the policy and the management decision of dividend policy will decided to meet maximize their own benefit.

For Sugiyarso and Winarni (2005), profitability to achieve a return that is often known by comparison with capital gains that have been used by the company itself. Profitability usually used as one of indicator whether the company is successful to generate the profit. This will affect the decision of the investors whether the investment will be made. However, profitability is not only could affected the investor's decision but also management decision in making dividend policy. Lintner (1956) explored in his study about factors affecting the decision policy and them like profitability, and the prospects for growth for.

Concerning liquidity; liquidity could be refers to the asset conversion into cash on short term horizon. In their analytical study, Durrah *et al.* (2016) conveys it as the firm is able to pay its short-term liabilities.

Based on Zhong (2016), a company with strong liquidity of assets tends to bring high profits, which also come with guaranteed ability of the company to pay dividend and positively affected the management decision in making dividend policy. In that research also stated that stronger liquid of assets of a company will cause higher dividend payout rate. To measure the company's liquidity of assets, investors used liquidity ratio in order to be sure to embed their investment in a company.

In terms of leverage, it is the utilized of assets and source of funds by company that has fixed cost in order to maximize the profit of stakeholders (Sartono, 2008). Leverage could be the firm debt uses to finance assets. In order to fulfill their operational and investment needs, a company may use debt or borrowed capital as funding source and generates returns on risk capital. The debt could be helping a company to growth in profit if that company could generate return that is high than the interest rate on its debt. However, if company could not control the debt level, it could lead to credit downgrades. On the other hands, if company has too few debts, it also could be a sign that operating margin is too tight causing reluctance or inability to borrow.

Nurchaqiqi and Suryani (2018) suggest because of the flow of funds that previously could be used as payment of dividend will be used to pay interest from the debt. In other hand, Modigliani and Miller (1961) stated that the strong signal for the company that could be seen by the escalation of debt level and it will rise the value of the company which will be influence the firm to willingly settled a higher rate of dividends, because the debt will push

the management to enjoy fewer benefit for themselves and motivate to work harder for the company.

The ratio on leverage helps to determine the relative level of debt load that a business has incurred. There are two main leverage ratios that usually used, which are DER that measure the riskiness of a company's financial structure by comparing equity to debt, and debt ratio using assets to debt.

Machfoedz (1999) found that the large firm, medium firm and small firm are the three different class to classify the size of a company. The firm size itself is used to measure the divided and the size of the company relationship in various ways, along with total assets, etc. (Suwito and Herawaty, 2005). Size of firm could affect the management ability in operating the company against different situation. Large firm is trust to be easier to join the capital market and has a chance to pay dividend to the shareholder, while the small firms usually get a difficulty to join the capital market. Thus, the small firm's management has limited ability in handling the capital and dividend and tends to hold the profit in order to financing the company's operating cost. Therefore, the dividend from the small firm tends to be smaller than the larger firm, make the investor more willing to invest their wealth in larger firm with expectation of return.

Hypothesis development

Profitability and dividend policy

For Lintner (1956), a company's earnings impact on dividend payment that is in line with the pecking order theory. The more profitable the company the more it can pay dividend. Aivazian *et al*. (2003) implies that DPR is in line with the ROE. For Fama and French (2001), size and profitability could have positive influence on dividend policy.

On the opposite side, the study of Kaźmierska-Jóźwiak (2015) in the Polish listed company presented that the company's profitability contrarily impacts on pyament. It concludes the less likely of company to pay dividend since they using retained earning as their capital sources. Furthermore, study conducted by Pinem and Dwi (2016) presented that ROA has negative impact whereas ROE no impact on the policy. Thus, our hypothesis follows Fama and French (2001) as below.

H_1: Profitability has positive impact on dividend policy.

Liquidity and dividend policy

Ho (2003), the size and liquidity has positive relation to dividend in Australia and Japan samples. For Alli *et al.* (1993), cash flows which provides the capacity of the company in paying dividends prone to moral hazard as similarly to Brook *et al.* (1998). However, in the research held by Myers and Bacon (2001), found negative relationship. Similar with previous research, Ahmad and Wardani (2014) are also presented in their research that dividend policy is negatively affects the liquidity. Based on Ho (2003), the proposed hypothesis is:

H_2: Liquidity has positive impact on dividend policy.

Leverage and dividend policy

Along with the study by Syamsudin (2011); it presented that the capability of the company to utilize their fixed assets to develop the firm value and could be named as leverage. Modigliani and Miller combined with pecking order theory that proposed by Myers and Majluf (Trang, 2012). Modigliani and Miller (1961), state that the better signal for the firm could be seen by the escalation of debt level and it will rise the value of the company. The escalated debt could also persuade the management in working more efficiently in

avoidance of lower benefit for themselves. On other side, Ahmad and Wardani (2014) present between leverage and dividend policy the impact is negative. Based on Ahmad and Wardani (2014), the proposed hypothesis is:

H_3: Leverage has negative impact on dividend policy.

Firm size and dividend policy

Based on the study conducted by Machfoedz (1999), the large firm, medium firm and also small firm are the three different class to classify the size of the company. The total asset of a company usually used as the measurement of the size of the company because the capability of the company in operating in their business could be seen in the total asset. Lesser shareholders usually found in medium or smaller company compared with the larger firm, since the smaller and medium firm would maximize their earning to focusing on financing the operation and expanding business rather than paying dividend, while the larger firm would prefer sharing their profit of business to paying the dividend in order to hold and gain better trust from the shareholder. Stated in the research of Ranti (2013), it found the positive impact on size and payment of dividend.

H_4: Firm size has positive impact on dividend policy

Conceptual framework

The conceptual framework is a momentary explanation of an aspect that becoming research problem of the research. This framework is structured according to literature review and relevant or related research results that becomes researcher's reasoning in developing a hypothesis later. In formulating the hypothesis, deductive using scientific knowledge will be used as the argumentation framework as its basic premise. This study analyses the profitability (ROA), liquidity (CR), leverage (LEV) and firm size (SIZE) to explain the dividend policy (DIV).
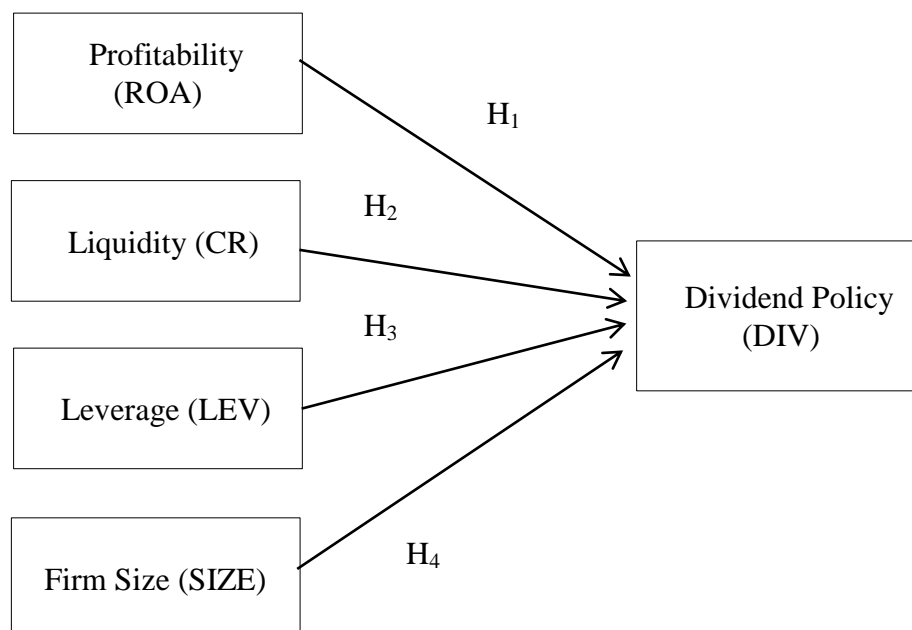

Figure 1. Research Framework

RESEARCH METHOD

Sampling design

This study uses the manufacturing sector listed companies in Indonesian Stock Exchange (IDX) for period 2013 – 2017 as the population to purposively choose representative samples. Secondary data that used in this study were obtained through documentation methods. This documentation method is carried out by collecting the necessary financial statements based on previous explanations. Data is retrieved based on *www.idx.co.id* in the form of audited financial statements.

Statistical analysis
Logistic regression model analysis

This research will be using logistic regression model because this model is the most appropriate model to assess the dichotomous dependent variable. Logistic regression with two categories scale usually called Binary Logistic Regression (BLR). Cumulative distribution function will be used by logistic model which is principal to represent that a model is able to presented the response of the dependent variable with two scales categories, 0 and 1for the dividend aspect.

In this research, logistic regression equation model is using maximum likelihood and represent as follows:

$$DIV_i = \beta_0 + \beta_1 ROA_i + \beta_2 CR_i + \beta_3 LEV_i + \beta_4 SIZE_i + \varepsilon_i$$

Where :

DIV	=	two scales categories, 1 pay dividend, and 0 elsewhere
β_0	=	constant of the regression or the intercept;
$\beta_1, \beta_2, \ldots \beta_4$	=	regression coefficients of each0independent variable;
ROA	=	return on asset;
CR	=	current ratio;
LEV	=	financial leverage;
SIZE	=	firm size by logarithm of total asset; and
ε	=	error term

Model specification test

Logistic regression analysis used to analyze the model with scenario in above. The model that could give the best estimation result which means statistical significance level, the suitability of the estimated parameter coefficients with the theory or the suitability of their implications in the field was chosen as the best fit model in this research. Thus, the Wald test which has the same purpose like t-test is used to measure whether each one of independent variables partially influences dependent variable with 5% significant level.

RESULT ANALYSIS AND DISCUSSION

Descriptive analysis

Table 1. Descriptive statistics

Variables	N	Min.	Max.	Mean	Std. Dev.
DPR	299	0.000000	1.000000	0.511706	0.500701
ROA	299	-1.617225	1.444496	0.069398	0.202290

CR	299	0.132725	13.87127	2.374824	2.153851
LEV	299	0.025249	9.410670	0.605803	0.843544
SIZE	299	11.40006	18.33547	14.43220	1.543887

According to the table above, minimum value of DPR is 0 while the maximum of 1 because the DPR is using 0 and 1 as indicator to measure whether the company is paying dividend or not. The mean value of DPR which is 0.511706 shows that in 299 samples taken, 51% of the company is paying the dividend while the standard deviation of that is 0.500701 which means the deviation of DPR is 50% from the mean of the DPR.

The mean of ROA is 0.069398 which means only 6% of total sample has gained profit or did not has profit with standard deviation 20% from mean of ROA. The minimum value of ROA is -1.617225 that owned by Alakasa Industrindo Tbk (ALKA) in period of 2013, while the maximum value held by SIDO in periods of 2014 with 1. 1.444496.

Jembo Cable Company Tbk (JECC) of 0.132725 in 2016; presents the 13.27% as the liquidity percentage of the company. In other side, the Intanwijaya Internasional Tbk (INCI) owned the maximum value in period of 2013 with 13.87127, showing the high liquidity level of the company in that year.

For Gunawan Dianjaya Steel Tbk (GDST) the Lev is 0.025249 while Tirta Mahakam Resources Tbk (TIRT) in 2014 owned the maximum value of it with 9.410670. The lower value of leverage implies that the greater capability of the company paying its long-term debts. Last, minimum value of firm size is owned by Primarindo Asia Infrastructure Tbk.(BIMA) in 2017 with 11.40006 and Indofood Sukses Makmur Tbk (INDF) have the maximum value in 2015 with 18.33547. The greater value of firm size implies the size of the company by using their total asset that year.

Hypothesis testing result

Table 2. Regression result

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-12.86313	2.201337	-5.843325	0.0000
ROA	23.01877	3.242775	7.098480	0.0000
CR	0.018780	0.084784	0.221504	0.8247
LEV	-0.077831	0.202834	-0.383720	0.7012
SIZE	0.811334	0.148184	5.475198	0.0000

Ratio Odd

With the estimation result above, it can be formulated testing the regression equation as follows:

$$DIV_i = -12.86313 + 23.01877 ROA_{i,t} + 0.018780\ CR_{i,t} - 0.077831 LEV_{i,t} + 0.811334 LOGTA_{i,t} + \varepsilon_{i,t}$$

The Influence of Profitability towards Dividend Policy

This result based on the above table indicates that profitability has significant influence on dividend policy regarding company decision in paying dividend. With a higher profitability, company will be focusing in maintaining the shareholder while inviting another potential shareholder to invest their cash in the company with paying the dividend. On the same side, expectation of the investor while investing their money in the company is obtaining the dividend, therefore the company with higher profitability will attracted more

new shareholder. The research by Ahmad and Wardani (2014) which stated profitability has significance influence towards dividend policy is supported this result.

The Influence of Liquidity towards Dividend Policy

The result shows that the liquidity as independent variable has no influence towards dependent variable, namely dividend policy. Liquidity usually used to measure whether the company is prepared enough to pay off the short-term obligation, also used by the investor to make sure whether the liquidity of this company is stable in order to fulfill their short-term debt. High liquidity means the company has capability of using their liquid asset to pay-off short term debt yet it still does not imply that the company will paying their dividend. The company could utilize their asset to pay the long-term debt, maximizing their operational or continuing to the next year books to cover the loss in previous years. This result is supported with the study conducted by Myers and Bacon (2001) which presented that dividend policy has no significance relation with liquidity ratio.

The Influence of Leverage towards Dividend Policy

These results indicate that leverage has no significant influence on the decision in paying dividend. Leverage ratio usually used by the investor to measure whether the company has the ability to repay their long term-debt. Even though the decision in making investment by the investor in the company could be affected by this ratio; this ratio is not capable enough to have an impact for dividend policy. The capability of the company in paying their long term debt off did not conclude the company to pay their dividend since the company could utilize their current asset or profit in order to pay their short term debt and decided to did not distributed the dividend. The study held by Naceur *et al.* (2005) is supported this result with stated leverage ratio of a company has no significance relation with dividend policy.

The Influence of Firm Size towards Dividend Policy

The result shows that the firm size has influences towards dividend policy. The size of the company which usually measured by total asset of the company is suitable to be one of indicators to measured dividend policy. Large company usually enter the market capital easier with using their methods of paying the dividend routinely to invites more investor to invest their money in their company. A company who routinely paying their dividend will attract more investor since the investor will anticipated in gaining more stable dividend rather than a company who could not pay the dividend routinely. Therefore, the larger company's management usually decide to focusing on paying the dividend as annual agenda compared with a smaller company, and it indicates that there is significant influence between firm size and dividend policy. The study by Ahmad and Wardani (2014) which stated firm size has significant influence towards dividend policy supported this result.

CONCLUSION

Profitability is found to have positive and significant impact on dividend policy. It is in line with the previous literatures that firms with higher profitability tend to pay more dividends to the shareholders in order to maximize their wealth. Nevertheless, policy on dividend payment do not rely on how liquid is the company because liquidity is for short term horizon. The size of the firm does not impacts on dividend payment since it depends on the financial and business conditions. Precisely, mature business company tend to pay dividend more than the younger ones. Leverage does not imply on the payment of dividend since it is for investment not for compensation use, by which firm even beneficiate the tax.

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APPENDICES

Appendix 1. List of companies

Table 3. Company samples list

NO	COMPANY CODE	COMPANY NAME
1.	ADES	Akasha Wira International Tbk
2	AISA	Tiga Pilar Sejahtera Food Tbk
3	AKPI	Argha Karya Prima Industri Tbk
4	ALKA	Alakasa Industrindo Tbk
5	ALMI	Alumindo Light Metal Industry Tbk
6	ALTO	Tri Banyan Tirta Tbk
7	APLI	Asiaplast Industries Tbk
8	ARNA	Arwana Citramulia Tbk
9	BAJA	Saranacentral Bajatama Tbk.
10	BATA	Sepatu Bata Tbk
11	BIMA	Primarindo Asia Infrastructure Tbk.
12	BRNA	Berlina Tbk.
13	BTON	Betonjaya Manunggal Tbk
14	BUDI	Budi Starch & Sweetener Tbk
15	CPIN	Charoen Pokphand Indonesia Tbk.
16	1CPRO	Central Proteinaprima Tbk.
17	DLTA	Delta Djakarta Tbk.
18	DVLA	Darya-Varia Laboratoria Tbk
19	EKAD	Ekadharma International Tbk
20	GDST	Gunawan Dianjaya Steel Tbk
21	GGRM	Gudang Garam Tbk
22	HMSP	HM Sampoerna Tbk
23	ICBP	Indofood CBP Sukses Makmur Tbk.
24	IGAR	Champion Pacific Indonesia Tbk.
25	IIKP	Inti Agri Resources Tbk
2	IMAS	Indomobil Sukses Internasional Tbk.
27	INAI	Indal Aluminium Industry Tbk.
28	INCI	Intanwijaya Internasional Tbk
29	INDF	Indofood Sukses Makmur Tbk
30	INDR	Indo-Rama Synthetics Tbk.
31	JECC	Jembo Cable Company Tbk
32	JPFA	JAPFA Comfeed Indonesia Tbk
33	KBRI	Kertas Basuki Rachmat Indonesia Tbk
34	KIAS	Keramika Indonesia Assosiasi Tbk
35	KICI	Kedaung Indah Can Tbk
36	MAIN	Malindo Feedmill Tbk
37	MBTO	Martina Berto Tbk
38	MERK	Merck Tbk
39	MLBI	Multi Bintang Indonesia Tbk
40	MLIA	Mulia Industrindo Tbk
41	MYOR	Mayora Indah Tbk
42	PICO	Pelangi Indah Canindo Tbk.

43	PRAS	Prima Alloy Steel Universal Tbk
44	PSDN	Prasidha Aneka Niaga Tbk
45	RICY	Ricky Putra Globalindo Tbk
46	RMBA	Bentoel Internasional Investama Tbk
47	ROTI	Nippon Indosari Corpindo
48	SCCO	Supreme Cable Manufacturing & Commerce Tbk
49	SIDO	Industri Jamu dan Farmasi Sido Muncul Tbk
50	SIPD	Sierad Produce Tbk
51	SMSM	Selamat Sempurna Tbk
52	SRSN	Indo Acidtama Tbk
53	SSTM	Sunson Textile Manufacturer Tbk
54	STAR	Star Petrochem Tbk
55	TCID	Mandom Indonesia Tbk
56	TIRT	Tirta Mahakam Resources Tbk
57	TOTO	Surya Toto Indonesia Tbk
58	TRIS	Trisula International Tbk
59	TRST	Trias Sentosa Tbk
60	TSPC	Tempo Scan Pacific Tbk
61	UNVR	Unilever Indonesia

Appendix 2. Logistic regression analysis
1. Goodness of fit test

Table 4. Expectation Prediction table

	Estimated0Equation		
	0Dep=0	0Dep=1	0Total
0P(Dep=1)<=C	125	33	158
0P(Dep=1)>C	21	120	141
0Total	146	153	299
0Correct	125	120	245
% Correct	085.62	78.43	081.94
% Incorrect	014.38	21.57	018.06
Total Gain*	85.62	-21.57	30.77
Percent Gain**	85.62	NA	63.01

Table 5. Hosmer Lemeshow Test

Item 1	Value 2	Item 2	Value 2
H-L0Statistic	6.6968	Prob.0Chi-Sq(8)	0.5697
Andrews0Statistic	32.8735	Prob.0Chi-Sq(10)	0.0003

The result that this model is appropriate is supported by Hosmer Lemeshow test result in table 5. The result of Hosmer Lemeshow test shows that the Chi-square is 6.6968 with significance probability 0.5697. The probability value is higher than 0.5 which means that this model is able to predict and appropriate to be used in this research.

2. Multicollinearity test

Table 6. The multicollinearity test

	C	ROA	CR	LEV	SIZE
C	4.845882	-1.728670	-0.05858	-0.068752	-0.322920
ROA	-1.728670	10.515589	-0.054090	0.04165875	0.09146019
CR	-0.058585	-0.054090	0.0071887	0.003319	0.0030621
LEV	-0.068752	0.041658	0.0033197	0.0411415	0.00244519
SIZE	-0.32292	0.0914601	0.00306212	0.0024451	0.021958

3. Binary logistic regression analysis

Table 7. Binary logistic regression analysis

Items 1	Value 1	Items 1	Value 1
McFadden R-squared	0.452902	Mean dependent var	0.511706
S.D. dependent var0	0.500701	S.E. of regression	0.353763
Akaike info criterion	0.791584	Sum squared resid	36.79367
Schwarz criterion0	0.853464	Log likelihood	-113.3418
Hannan-Quinn criter.	0.816351	Deviance	226.6836
Restr. Deviance0	414.3381	Restr. log likelihood	-207.1691
LR statistic0	187.6545	Avg. log likelihood	-0.379070
Prob(LR statistic)	0.000000		
Obs with Dep=0	146	Total obs	299

McFadden Test (R^2)

McFadden test is used to measured the ability of independent variable in explaining the dependent variable. As could be seen in table 7, the result of McFadden R-squared is 0.452902. That means about 45.29% of dependent variable could be explained by independent variable while the 44.71% explained by other variable outside the model.

Likelihood Ratio Test (LR)

Likelihood ratio test is used to assessed whether all independent variable simultaneously influence the dependent variable. As could be seen in table 7, probability of LR shows value 0.000000 which is lower than 0.5. H_1 is accepted and it means all the independent variables simultaneously influence the dependent variables.

Wald Test (Z-Test)

Like t-test in OLS regression method, maximum likelihood using Wald Test to assessed the influence of each independent variable partially towards dependent variable. According to table 4.6, return on asset (ROA) and firm size (FIRM_SIZE) has significance influence towards dividend policy (DPR) with value 0.0000. That value is lower than 0.5 which means that there is significance influence between ROA to DPR and FIRM_SIZE to DPR. In other hand, the current ratio (CR) and leverage ratio (LEV) shows value 0.8247 and 0.7012 repetitively. That value is higher than 0.5, shows that current ratio and leverage ratio did not have significance influence toward dividend policy partially.