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EDUCATION

ASIAN JOURNAL OF MANAGEMENT SCIENCES & EDUCATION ISSN-L: 2186-845X, ISSN: 2186-8441 Print

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THE IMPACT OF DEBT POLICY, PROFITABILITY, AND LIQUIDITY ON DIVIDEND POLICY OF THE MANUFACTURING FIRMS LISTED IN INDONESIA STOCK EXCHANGE

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ABSTRACT

The dividend is a device for controlling shareholders to enrich themselves by transferring wealth from the debt holders. To prove it, therefore, this study wants to examine the impact of debt policy on dividend policy by profitability and liquidity as a control variable. This research population is manufacturing firms listed on the capital market of Indonesia from 2006 until 2012. Moreover, the samples get taken by a stratified random sampling method. Furthermore, to obtain and analyze the data, this study employs the archival approach and the logistic regression. Once investigating and discussing the hypothesis statistical test results, this study concludes that debt policy owns a negative influence on dividend policy. In contrast, profitability and firm liquidity have a positive effect. This situation shows that wealth transfer from debt holders to shareholders does not exist.

Keywords: Dividend policy, debt policy, wealth transfer.

INTRODUCTION

Dividend policy is one kind of firm policy besides investment and debt policy (Kaaro, 2003). This policy relates to distributing cash to shareholders, including the amount and the way (Gitman & Zutter, 2012). By sharing dividends, the firm rewards its shareholders because of the money that they place in the shares (Black, 1976).

As the firm's controller, the shareholders expect to select investment and financial decisions to maximize their wealth. Therefore, they transfer wealth from debt holders by choosing a policy to elevate existing debt risk. Firstly, they distribute the proceeds of the new issue of senior debt as dividends. If debt holders do not anticipate these payments, the wealth transfer will exist (Kalay, 1982). Secondly, controlling shareholders ask managers to invest their money in risky projects, enabling them to take benefits at the expense of debt holders if projects are successful (Easterbrook, 1984). If the investment gets failed, the debt holders must bear all costs (Harris & Raviv, 1991).

Some previous researchers effectively verify the wealth transfer hypothesis proposed by Kalay (1982). Based on this perspective, according to Kalay (1982), the firms use debt to finance dividend payment; therefore, a positive impact of debt policy on dividend policy exists (see Sugeng, 2009; Kouki & Guizani, 2009; Hadianto & Herlina, 2010). Unfortunately, the influence of this policy on dividend policy does not always affirm a positive, but a negative, as confirmed by Al-Malkawi (2007), Al-Kuwari (2009), Ramli (2010), Harada &

Nguyen (2011), and Al-Kuwari (2012). This negative impact indicates the debt restriction theory of dividend policy, proposed by Black (1976) and Easterbrook (1984).

By denoting this previous inconsistent evidence, this research is done to prove the hypothesis that can be applied for investigating the impact of debt policy on dividend policy with two control variables, profitability, and liquidity, by utilizing the manufacturing firms listed on the Indonesia stock exchange. The use of these firms is due to two reasons.

• Firstly, from 2006 to 2012, the firms have the second-largest number after the service industry, as seen in Table one, except for 2009. In 2009, this industry owned the first-largest position.

2000 and 2012							
The name of the industry				Year			
The nume of the mediatry	2006	2007	2008	2009	2010	2011	2012
Primary (agriculture & mining firms)	21	29	36	38	34	48	54
Secondary (manufacturing firms)	133	135	134	131	132	135	135
Tertiary (service firms)	180	219	226	129	254	257	270
Total	334	383	396	398	420	440	459

Table 1. The number of the listed firms in the Indonesian Stock Exchange between 2006 and 2012

Notes: This table gets made based on the data observed from the IDX Fact Book from 2007 to 2013 and also shows the comparison of the number of firms in the primary, secondary, and tertiary industries.

 Secondly, manufacturing firms have similar production processes and homogeneous accounting records. These two features can differentiate themselves from those in other industries, such as the primary and the tertiary¹.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Debt Policy and Dividend Policy

Debt restriction of dividend theory explains that debt holders can control the controlling shareholders to enrich themselves through debt agreements (Easterbrook, 1984). This agreement always bounds the dividends that companies pay (Black, 1976). In their study, Al-Malkawi (2007), Ramli (2010), Harada & Nguyen (2011), and Al-Kuwari (2012) confirm these explanations by finding a negative effect of debt on dividend policy. Based on this information, the first hypothesis is as follows.

H₁: Debt policy negatively affects the firm probability to pay dividends

¹The tertiary industry consists of the firms from infrastructure, utility, and transportation (IUT) sector, property, real estate, and building construction (PREBC) sector, financial sector, as well as trade, service, and investment (TSI) sector.

Profitability and Dividend Policy

The signaling theory of dividend explains that the firms with a good financial prospect deliver this signal to the uninformed investors by paying the cash dividend. What firms do is costly and cannot get imitated by the firms with a small profit (Megginson, 1997). Instead, only firms with high profits can do it. These explanations acquire support from the study of Al-Malkawi (2007), Al-Kuwari (2009), Al-Najjar & Hussainey (2009), Abdelsalam, El-Masry, & Elsegini (2008). Based on this information, the second hypothesis is as follows.

H₂: Profitability has a positive impact on the firm probability to pay dividends

Liquidity and Dividend Policy

Liquidity is the firm's ability to fulfill short-term debts that are close to maturity time. If the firm's liquidity is low, an early signal of cash flow difficulties and business failure will exist (Gitman & Zutter, 2012). If the firm has a large cash flow, the firm can distribute dividends (Kumar & Wahed, 2015). These explanations get confirmed by the study of Sanjari & Zarei (2014), Kumar & Wahed (2015), Tabari & Shirazi (2015), declaring liquidity has a positive impact on dividend policy. Based on this information, the third hypothesis is as follows.

H₃: Liquidity has a positive impact on the firm probability to pay dividends

RESEARCH METHOD

Type of Research

The type of this research is causal. According to Zikmund, Babin, Carr, & Griffin (2010), the causal study investigates cause-and-effect relations.

Variable Operationalization

Variable is a realistic assessment of a concept (Zikmund et al., 2010). In this research, two types of variables are present. The first is the dependent variable, i.e., dividend policy, whereas the second is the independent, debt policy as the main, and profitability and liquidity as the control.

- a. Dividend policy (DIV) stands measured by the dummy variable; one (1) is for every firm paying for dividends, and zero (0) is for every firm that does not pay for them.
- b. Debt policy gets measured by the debt ratio at the end of the year, calculated by dividing total debt by total assets.
- c. Profitability stands measured by the earnings per share at the end of the year (EPS).
- d. Liquidity gets measured by the current ratio at the end of the year (CR).

Population, Sample, and Sampling Method

The population in the research is the manufacturing firms in Indonesia Stock Exchange from 2006 until 2012. Their consistency is essential because many firms appear, do not exist anymore, and move into other sectors during this period. Because of these three reasons, the sampling frame is essential, as suggested by Zikmund et al. (2010). After removing the inconsistent firms, we get 116 firms as the working population number (N). By indicating the Slovin formula with a 5% error margin (e), as Suliyanto (2009) describes, the total samples got are 90 firms (rounded).

The Jakarta Stock Industrial Classification (JASICA), according to IDX Fact Book 2013, categorizes the manufacturing firms into three industry subgroups, such as the basic and chemicals, the consumer goods, and the miscellaneous. By this information, we treat them as the strata and employ stratified random sampling, the suitable method, as suggested by Zikmund et al. (2010). Moreover, the information of total firms as the strata-based population and the samples is available in Table 2.

Table 2. The Number of Sample Calculation Representing The number of Working Population of Manufacturing Firms Listed in Indonesia Stock Exchange

The name of strata	The number of the working population	%	Number of firms for each stratum
Basic Industry and Chemicals	49	42.24	38
Consumer Goods Industry	30	25.86	23
Miscellaneous Industry	37	31.90	29
Total	116	100.00	90

After knowing the total firms in each stratum, their selection gets based on simple random sampling (Zikmund et al., 2010). To determine the names of the chosen firms, we utilize the random value generated by Microsoft Excel, as Hartono (2009) explains; the result can be seen in Appendix 1.

Data Collection Method

In this research, the archival method performs to gather the data. According to Hartono (2009), this method functions to get secondary data. These data are from the Indonesia Capital Market Directory 2007-2013 and the company annual reports on the Indonesia Stock Exchange website of <u>www.idx.co.id</u>.

Method of Data Analysis

This research employs the pooled data² logistic regression model to analyze. This model uses a maximum likelihood estimation technique of parameter (β) to maximize the occasion probability (Hair, Black, Babin, & Anderson, 2010:322). In this research context, the dividend payment is the intended event. Furthermore, this model is in equation one.

$$DIV_{it} = \ln \frac{p_{it}}{p_{it}-1} = \beta_0 + \beta_1 DAR_{it} + \beta_2 EPS_{it} + \beta_3 CR_{it} + \varepsilon_{it}$$
(Eq.1)

In the E-Views program, the probability distribution of Z-statistic becomes the reference to verify the statistical hypothesis by following this rule:

• If the Z-statistical probability is less than 5%, the null hypothesis needs rejection.

² Pooled data means the combination of time series data and cross-section data (Widarjono, 2009).

• If the Z-statistical probability is higher or equal to 5%, the null hypothesis needs to accept.

The Assumption Tests of Logistic Regression Model

Some assumptions become needed when the logistic regression model wants to perform. Firstly, the non-normality of errors (Hair et al., 2010:317). To prove it, consequently, this study utilizes the Jarque-Bera test. If this probability value is similar to or larger than the 5% significance level, the errors follow normality distribution and vice versa.

Secondly, the dichotomous variable variance is different; therefore, the logistic regression model allows the heteroskedasticity (Hair et al., 2010). To prove it, moreover, this study employs the Glesjer test. If one independent variable, at least, has an impact on absolute error, heteroscedasticity is present. This situation is proven when the independent variables, as a minimum, have the probability value of t-statistic below the 5% significance level.

Thirdly, the logistic regression does not require a linear relationship between the independent variables and the forecasted probability of an event based on the dependent category (PROB_DIVF) (Hair et al., 2010; Ghozali, 2011). To prove it, likewise, this study utilizes the Ramsey RESET³. Suppose the of the Chi-square statistical probability from the additional variable of FITTED^2 to the model PROB_DIVF = f(DAR, EPS, CR) is less than the 5% significance level, no linear relationship between probability and the independent variables exists, and vice versa.

Fourthly, the absence of multicollinearity. If it happens, Tabachnick & Fidel (2007) explain that it leads to small standard errors for the estimated parameters as the ideal condition. One of the ways to detect it, according to Ghozali (2011), is by comparing the variance inflation factor (VIF) with 10. Multicollinearity is unavailable when the VIF of all the independent is less than 10.

Finally, logistic regression needs to achieve the goodness-of-fit test. According to Ghozali (2011), the Hosmer and Lemeshow statistic (H-L statistic) can be used to assess it. If its probability is upper than the 5% significance level, the used data supports this situation.

RESULTS AND DISCUSSION

Descriptive Statistics of Research Variables

Table 3 provides a summary of the descriptive statistics of all the research variables as follows.

- The mean of the dummy variable of dividend policy (DIV) is 0.3889, with a standard deviation of 0.48789. The minimum and maximum value of DIV is 0 and 1. These two values indicate that two groups of the firm exist. The first group (DIV=0) consists of the firms that do not distribute profits as dividends. The second one contains the firms paying them (DIV=1).
- The debt ratio (DAR) has an average, the minimum, the maximum, the standard deviation value of 1.0149, 0.07, 163.24, and 7.10310, respectively.

³ RESET means regression equation specification error test (see Hair et al., 2010; Ghozali, 2011).

- The earnings per share (EPS) has an average, the minimum, the maximum value of IDR490.5401, -IDR26192.29, IDR24080.78, respectively, and the standard deviation value of 2647.54475.
- The current ratio (EPS) has an average, the minimum, the maximum value of 215.9472%, 0.40%, 5773.28%, respectively, and the standard deviation value of 296.74513.

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DIV	630	0.00	1.00	0.3889	0.48789
DAR (decimal)	630	0.07	163.24	1.0149	7.10310
EPS (IDR)	630	-26192.29	24080.78	490.5401	2647.54475
CR (%)	630	0.40	5773.28	215.9472	296.74513

Table 3. Descriptive Statistics of Research Variables

Source: Modified output of IBM SPSS 19

The Test Results of Logistic Regression Assumptions

Table 4 provides the test result of the normality and heteroscedasticity. From Panel A, the probability value of the Jarque-Bera statistic of 0 is less than the 5% significance level; therefore, this situation confirms the logistic regression model errors do not follow the normal distribution. From Panel B, unlike EPS and CR, DAR is one independent variable affecting the absolute error. This situation is shown by the probability of a t-statistic of 0.0012, below the 5% significance level.

Table 4. The Result of Normality and Heteroskedasticity Test

Panel A. The Result of Normality Test (Jarque-Berra Test)					
Description	Resid	dual			
Jarque-Bera		41.29348			
Probability 0.000000					
Panel B. The Result of Heteroskedasticity Test (Glesjer Test): $ABSRES = f(C, DAR, EPS, CL)$					
Independent Variable	Coefficient	Prob.			
С	0.379062	0.0000			
DAR -0.003967		0.0012			
EPS -1.54E-06		0.6388			
CR	-2.73E-05	0.3606			

Source: Modified Output of E-Views 6

Table 5 shows the test result of the linearity relationship between forecasted firm possibility to pay dividends (PROB_DIVF) and independent variables (DAR, EPS, CR). In this table, the probability value of Chi-Square (1) resulted from the additional variable, FITTED^2, to

the model: $PROB_DIVF = f$ (DAR, EPS, CR), is 0.0000. Because this probability value is less than 5%, no linearity relationship happens.

Table 5 The Result of Ramsev RESET

-			ILDEI		
F-statistic	80.49468	Prob. F(1,625	i)	0.0000	
Log likelihood ratio	76.32298	Prob. Chi-Squ	Prob. Chi-Square(1)		
Test Equation:					
Dependent Variable:	PROB_DIVF				
Method: Least Squar	es				
Date: 07/01/16 Time	e: 17:46				
Sample: 1 630					
Included observation	s: 630				
Variable	Coefficient	Std. Error	t-Statistic	Probability	
С	0.301579	0.007941	37.97860	0.0000	
DAR	-0.003215	0.000894	-3.594490	0.0004	
EPS	5.65E-05	3.12E-06	18.09379	0.0000	
CR	0.000698	4.48E-05	15.57524	0.0000	
FITTED^2	-0.517502	0.057680	-8.971883	0.0000	
Source: Mo	dified Output	of E-Views 6			

Table 6 exhibits multicollinearity detection by the VIF value of DAR, EPS, and CR of 1.003, 1.005, and 1.007, respectively. Because these three values are less than 10, the multicollinearity problem does not exist in this model.

Predictor/independent	Collinearity Statistics		
variable	Tolerance	VIF	
DAR	0.997	1.003	
EPS	0.995	1.005	
CR	0.993	1.007	

Source: Modified Output of IBM SPPS 19

Table 7 illustrates the test result of the goodness-of-fit model. In this table, the probability value (Sig.) of Hosmer and Lemeshow statistic (H-L statistic) is 0.099. This value is higher than 5%; therefore, the data fit with the logistic regression model.

Step	Chi-square	Degree of freedom	Sig.
1	13.410	8	0.099

Table 7. The Test Result of Hosmer and Lemeshow Statistic

Source: Modified Output of IBM SPSS 19

The Result of Logistic Regression Model Estimation

Table 8 displays the estimation result of the logistic regression model of the impact of debt policy, profitability, and liquidity on the firm probability to pay dividends.

Table 8. The Result of Logistic Regression Model Estimation

Dependent Variable: DIV

Method: ML - Binary Logit (Quadratic hill climbing)

Date: 07/04/16 Time: 01:52

Sample: 1 630

Included observations: 630

Convergence achieved after seven iterations

Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
С	0.563892	0.376541	1.497559	0.1342
DAR	-2.743914	0.512860	-5.350222	0.0000
EPS	0.000297	8.38E-05	3.542633	0.0004
CR	0.001617	0.000786	2.059016	0.0395
McFadden R-squared	0.187729	Mean depend	lent var	0.382540
SD dependent var	0.486393	SE of regression		0.429910
Akaike info criterion	1.093496	Sum squared resid		115.6991
Schwarz criterion	1.121723	Log-likelihood		-340.4513
Hannan-Quinn criterion	1.104460	Restricted log	g-likelihood	-419.1351
LR statistic	157.3676	Avg. log-like	lihood	-0.540399
Prob(LR statistic)	0.000000			
Obs with Dep=0	389	Total obs		630
Obs with Dep=1	241			

Source: Output of E-Views 6.

The Result of Hypothesis Test

The first hypothesis (H_1) , becoming the alternative, states that debt policy negatively influences the company's possibility to pay dividends. In Table 8, the DAR coefficient is negative, and its probability of Z-statistic is 0.0000. By considering this probability going below a 5% significance level, the null hypothesis gets rejected. Instead, the alternative become acknowledged.

The second hypothesis (H_2), becoming the alternative, states that profitability positively influences the company's possibility to pay dividends. In Table 8, the EPS coefficient is positive, and its probability of Z-statistic is 0.0004. By considering this probability going below a 5% significance level, the null hypothesis gets rejected. Instead, the alternative become acknowledged.

The third hypothesis (H_3) , becoming the alternative, states that debt policy negatively influences the company's possibility to pay dividends. In Table 8, the CR coefficient is positive, and its probability of Z-statistic is 0.0395. By considering this probability going below a 5% significance level, the null hypothesis gets declined. Instead, the alternative become acknowledged.

DISCUSSION

The acceptance of the first alternative hypothesis in this study confirms the debt restriction theory on dividend payment (Black, 1976; Easterbrook, 1984) and does not support the wealth transfer theory (Kalay, 1982). By the negative impact of debt policy on dividend policy, this research affirms the previous evidence of the study of Malkawi (2007), Ramli (2010), Harada & Nguyen (2011), and Al-Kuwari (2012). This negative effect shows that the controlling shareholders tend to commit to the debt agreements by not paying themselves the proceeds of the new issue of senior debt as dividends and not doing the activity that can harm debt holders, i.e., investing the money in the risky projects.

The acceptance of the second hypothesis affirms the signaling theory and the previous research conducted by Al-Malkawi (2007), Abdelsalam et al. (2008), Al-Kuwari (2009), Al-Najjar & Hussainey (2009) displaying that profitability has a positive impact on dividend policy. By receiving the third formulated hypothesis, this research is in line with the previous result of the study conducted by Sanjari & Zarei (2014), Tabari & Shirazi (2015), and Kumar & Wahed (2015) showing that the higher the liquidity position, the higher probability of the firm to pay dividends.

By the positive effect of profitability and liquidity on dividend policy, this research interprets that the controlling shareholders are responsible for protecting the interest of the minority shareholders by having a good intention to pay dividends for them when firms can get profits and reach a high liquidity position.

MANAGERIAL IMPLICATION

Based on two conclusions of this research, two managerial implications are available. Firstly, debt holders do not need to worry if they lend money to the manufacturing firms because the controlling shareholders of firms can be trusted to obey the debt agreements.

Secondly, the controlling shareholders can be trusted to overcome potential conflict associated with minority shareholder interest by paying dividends when the profitability and liquidity are high. Therefore, minority shareholders can buy the firm stocks at the secondary market to get them as one component of their income besides capital gain.

CONCLUSION AND FUTURE RECOMMENDATION

This research aims to prove and analyze the effect of debt policy, profitability, and liquidity on dividend policy by the logistic regression model and 90 manufacturing firms in the Indonesian capital market as the sample from 2006 until 2012. By denoting the result of the investigated hypotheses, this study concludes that on the effect on the probability of firm to pay dividends, debt policy has a negative, but profitability and liquidity have a positive.

This research has some limitations. Consequently, this research gives some recommendations to the next researchers to overcome them.

- Firstly, the McFadden R-square in this research is low, 0.187729, as displayed in Table 8. Therefore, the variables utilized in this model cannot predict the dividend policy of manufacturing firms yet. Denoting this limitation, the next researchers can use board composition, institutional ownership, investment opportunity set, the tangibility of asset, and firm size measured by market capitalization or total asset as the additional variables in their research model.
- Secondly, the time observation covers seven years to explain the variables affecting dividend policy. Therefore, to overcome this limitation, the next researchers get expected to extend the period to be 10 (ten) years to result in the statistical test capturing better evidence.
- Finally, the research uses only manufacturing firms as the research object. Using nonfinancial firms is possible to enlarge the working population scope and to help the next researchers to make a better generalization for the research evidence.

REFERENCES

- Abdelsalam, O., El-Masry, A., & Elsegini, S. (2008). Board Composition, Ownership Structure, and Dividend Policies in an Emerging Market: Further Evidence from CASE 50. *Managerial Finance*, 34(12), 953-964.
- [2] Al-Kuwari, D. (2009). Determinants of the Dividend Policy in Emerging Stock Exchanges: The Case of GCC Countries. *Global Economy & Finance Journal*, 2(2), 38-63.
- [3] Al-Kuwari, D. (2012). Are Large Shareholders Conducting Influential Monitoring in Emerging Markets? An Investigation into the Impact of Large Shareholders on Dividend Decisions: The Case of Kuwait. *Research in World Economy*, 3(2), 52-67.
- [4] Al-Najjar, B., & Hussainey, K. (2009). The Association between Dividend Payout and Outside Directorships. *Journal of Applied Accounting Research*, 10 (1), 4-19.
- [5] Al-Malkawi, H.N. (2007). Determinants of Corporate Dividend Policy in Jordan: An Application of the Tobit Model. *Journal of Economic & Administrative Sciences*, 23(2), 44-70.
- [6] Easterbrook, F.H. (1984). Two Agency-Cost Explanations of Dividends. *The American Economic Review*, 74(4), 650-569.
- Black, F. (1976). The Dividend Puzzle. *The Journal of Portfolio Management*, 2(2), 5-8.
- [8] Ghozali, I, (2011). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19*. Semarang: Badan Penerbit Universitas Diponegoro.
- [9] Gitman, L. J., & Zutter, C. J. (2012). *Principles of Managerial Finance* (13 eds.). Boston: Prentice-Hall.
- [10] Gugler, K., & Yurtoglu, B. B. (2003) Corporate Governance and Dividend Pay-Out Policy in Germany. *European Economic Review*, 47, 731-758.
- [11] Hadianto, B., & Herlina. (2010). Prediksi Arus Kas Bebas, Kebijakan Utang, dan Profitabilitas Terhadap Kemungkinan Dibayarkannya Dividen. Jurnal Manajemen Bisnis Integritas, 3(1), 53-74.
- [12] Harada, K., & Nguyen, P. (2011). Ownership Concentration and Dividend Policy in Japan. *Managerial Finance*, 37(4), 362-379.
- [13] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R.E. (2010). Multivariate Data Analysis (7 eds.). Boston: Pearson Prentice-Hall.
- [14] Harris, M., & Raviv, A. (1991). The Theory of Capital Structure. *The Journal of Finance*, 46(1), 297-355.
- [15] Hartono, J. (2009). Metodologi Penelitian Bisnis: Salah Kaprah dan Pengalaman-Pengalaman. Yogyakarta: BPFE-UGM.

- [16] Kaaro, H. (2003). Simultaneous Analysis of Corporate Investment, Dividend, and Finance: Empirical Evidence under High Uncertainty. *Journal of Accounting, Management, and Economic Research*, 3(1), 1-17.
- [17] Kalay, A. (1982). Shareholder-Bondholder Conflict and Dividend Constraint, *Journal of Financial Economics*, 10, 211-233.
- [18] Kumar, B.R., & Wahed, K.A. (2015), Determinants of Dividend Policy: Evidence from GCC Market. *Accounting and Finance Research*, 4(1), 17-29.
- [19] Kouki, M., & Guizani, M. (2009). Ownership Structure and Dividend Policy: Evidence from the Tunisian Stock Market. *European Journal of Scientific Research*, 25, 42-53.
- [20] Megginson, W.L. (1997). Corporate Finance Theory. New York: Addison-Wesley.
- [21] Ramli, N. (2010). Ownership Structure and Dividend Policy: Evidence from Malaysian Companies. *International Review of Business Research Papers*, 6(1), 170-180.
- [22] Sanjari, T., & Zarei, B. (2014). The Study Factors Influencing Corporate Dividend Policy of Financial and Non-Financial Firms on Companies Listed in Tehran Stock Exchange, *Research Journal of Finance and Accounting*, 5(21), 138-144.
- [23] Sugeng, B. (2009). Pengaruh Struktur Kepemilikan dan Struktur Modal terhadap Kebijakan Inisiasi Dividen Di Indonesia. *Jurnal Ekonomi & Bisnis*, 14(1), 37-48.
- [24] Suliyanto (2009). Metode Riset Bisnis. Yogyakarta: Penerbit Andi.
- [25] Tabachnick, B. G., & Fidell, L. S. (2007). Using Multivariate Statistics (5 eds.). Boston: Pearson Education, Inc.
- [26] Tabari, N. A. Y. Z., & Shirazi, S. (2015). Examining The Determinants of Dividend Policy in Listed Companies in Tehran Stock Exchange, *Indian Journal of Fundamental* and Applied Life Sciences, 5(S3), 2375-2382.
- [29] Widarjono, A. (2009). Ekonometrika: Pengantar dan Aplikasinya (3 eds.). Yogyakarta: Penerbit Ekonesia FE-UII.
- [30] Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business Research Methods* (8 eds.). Canada: South-Western Cengage Learning.

No.	Industry	Code	Name of the firm
1.	Basic and Chemical Industry	AKKU	Alam Karya Unggul
2.	Basic and Chemical Industry	AKPI	Argha Karya Prima Industri
3.	Basic and Chemical Industry	ALMI	Alumindo Light Metal Industry
4.	Basic and Chemical Industry	AMFG	Asahimas Flat Glass
5.	Basic and Chemical Industry	APLI	Asiaplast Industries
6.	Basic and Chemical Industry	ARNA	Arwana Citra Mulia
7.	Basic and Chemical Industry	BRNA	Berlina
8.	Basic and Chemical Industry	BRPT	Barito Pacific Timber
9.	Basic and Chemical Industry	BTON	Betonjaya Manunggal
10.	Basic and Chemical Industry	BUDI	Budi Acid Jaya
11.	Basic and Chemical Industry	CPIN	Charoen Pokphand Indonesia
12.	Basic and Chemical Industry	CTBN	Citra Turbindo
13.	Basic and Chemical Industry	DPNS	Duta Pertiwi Nusantara
14.	Basic and Chemical Industry	EKAD	Ekadharma Internasional
15.	Basic and Chemical Industry	ETWA	Eterindo Wahanatama
16.	Basic and Chemical Industry	FASW	Fajar Surya Wisesa
17.	Basic and Chemical Industry	FPNI	Titan Kimia Nusantara
18.	Basic and Chemical Industry	IGAR	Kageo Igar Jaya
19.	Basic and Chemical Industry	INKP	Indah Kiat Pulp & Paper
20.	Basic and Chemical Industry	INRU	Toba Pulp Lestari
21.	Basic and Chemical Industry	INTP	Indocement Tunggal Perkasa
22.	Basic and Chemical Industry	JKSW	Jakarta Kyoei Steel Works
23.	Basic and Chemical Industry	JPFA	Japfa Comfeed Indonesia
24.	Basic and Chemical Industry	LION	Lion Metal Works
25.	Basic and Chemical Industry	LMSH	Lionmesh Prima
26.	Basic and Chemical Industry	MAIN	Malindo Feedmill
27.	Basic and Chemical Industry	MLIA	Mulia Industrindo
28.	Basic and Chemical Industry	MYRX	Hanson International
29.	Basic and Chemical Industry	SAIP	Surabaya Agung Industri Pulp & Kertas
30.	Basic and Chemical Industry	SIMA	Siwani Makmur
31.	Basic and Chemical Industry	SIPD	Sierad Produce
32.	Basic and Chemical Industry	SMCB	Holcim Indonesia

Appendix 1. The List of The Name of The Firms List as the Research Samples

No.	Industry	Code	Name of the firm
33.	Basic and Chemical Industry	SRSN	Indo Acidatama
34.	Basic and Chemical Industry	SULI	Sumalindo Lestari Jaya
35.	Basic and Chemical Industry	TKIM	Pabrik Kertas Tjiwi Kimia
36.	Basic and Chemical Industry	ΤΟΤΟ	Surya Toto Indonesia
37.	Basic and Chemical Industry	TRST	Trias Sentosa
38.	Basic and Chemical Industry	UNIC	Unggul Indah Cahaya
39.	Consumer Goods Industry	GGRM	Gudang Garam
40.	Consumer Goods Industry	HMSP	Hanjaya Mandala Sampoerna
41.	Consumer Goods Industry	INAF	Indofarma (State Enterprise)
42.	Consumer Goods Industry	INDF	Indofood Sukses Makmur
43.	Consumer Goods Industry	KAEF	Kimia Farma (State Enterprise)
44.	Consumer Goods Industry	KDSI	Kedawung Setia Industrial
45.	Consumer Goods Industry	KLBF	Kalbe Farma
46.	Consumer Goods Industry	LMPI	Langgeng Makmur Plastic
47.	Consumer Goods Industry	MERK	Merck
48.	Consumer Goods Industry	MLBI	Multi Bintang Indonesia
49.	Consumer Goods Industry	MRAT	Mustika Ratu
50.	Consumer Goods Industry	MYOR	Mayora Indah
51.	Consumer Goods Industry	PSDN	Prasidha Aneka Niaga
52.	Consumer Goods Industry	PYFA	Pyridam Farma
53.	Consumer Goods Industry	RMBA	Bentoel International Investama
54.	Consumer Goods Industry	SCPI	Schering Plough Indonesia
55.	Consumer Goods Industry	SKLT	Sekar Laut
56.	Consumer Goods Industry	SQBI	Taisho Pharmaceutical Indonesia
57.	Consumer Goods Industry	STTP	Siantar Top
58.	Consumer Goods Industry	TCID	Mandom Indonesia
59.	Consumer Goods Industry	TSPC	Tempo Scan Pacific
60.	Consumer Goods Industry	ULTJ	Ultra Jaya Milk Industri & Trading Co.
61.	Consumer Goods Industry	UNVR	Unilever Indonesia
62.	Miscellaneous Industry	BATA	Sepatu Bata
63.	Miscellaneous Industry	BIMA	Primarindo Asia Infrastructure
64.	Miscellaneous Industry	BRAM	Indo Kordsa/Branta Mulia

No.	Industry	Code	Name of the firm
65.	Miscellaneous Industry	CNTX	Century Textile Industry
66.	Miscellaneous Industry	GJTL	Gajah Tunggal
67.	Miscellaneous Industry	HDTX	Panasia Indosyntec Tbk
68.	Miscellaneous Industry	IKBI	Sumi Indo Kabel
69.	Miscellaneous Industry	IMAS	Indomobil Sukses International
70.	Miscellaneous Industry	INDR	Indo-Rama Synthetics
71.	Miscellaneous Industry	INDS	Indospring Tbk
72.	Miscellaneous Industry	JECC	Jembo Cable Company
73.	Miscellaneous Industry	KARW	Karwell Indonesia
74.	Miscellaneous Industry	KBLI	KMI Wire and Cable/GT Kable Indonesia
75.	Miscellaneous Industry	KBLM	Kabelindo Murni
76.	Miscellaneous Industry	LPIN	Multi Prima Sejahtera
77.	Miscellaneous Industry	MASA	Multistrada Arah Sarana
78.	Miscellaneous Industry	MYTX	Apac Citra Centertex
79.	Miscellaneous Industry	NIPS	Nipress
80.	Miscellaneous Industry	PAFI	Panasia Filament Inti
81	Miscellaneous Industry	PBRX	Pan Brothers
82.	Miscellaneous Industry	POLY	Asia Pacific Fibers
83.	Miscellaneous Industry	PRAS	Prima Alloy Steel
84.	Miscellaneous Industry	RICY	Ricky Putra Globalindo
85.	Miscellaneous Industry	SCCO	Supreme Cable Manufacturing & Commerce
86.	Miscellaneous Industry	SMSM	Selamat Sempurna
87.	Miscellaneous Industry	SSTM	Sunson Textile Manufacturer
88.	Miscellaneous Industry	TFCO	Tifico Fiber Indonesia
89.	Miscellaneous Industry	UNTX	Unitex Tbk
90.	Miscellaneous Industry	VOKS	Voksel Electric