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Investigating the determinants of dividend policy in emerging markets using a combination of exploratory variables

Abstracts

The authors analyze the factors causing dividend policy by utilizing agency cost theory of dividend and transaction cost of dividend by using blue chips companies stock listed in the Indonesian Stock Exchange (IDX) from 2004-2013. They also examine the transaction costs of bid-offer spread and commission as the proxies with agency cost factors of insider ownership and shareholder dispersion. The authors observe that the independent variables affected the dividend policy simultaneously. In addition, they find that the bid-offer spread as a new proxy also had significant effects on the dividend policy.

Keywords: bid-offer spread, commission, insider ownership, shareholder dispersion.

JEL Classification: G12, G30, C14.

Introduction

Dividend policy can influence the estimation of a firm in that capacity is crucial to comprehend the primary determinants of profit approach. In this exploration, we apply two noticeable dividend theories such as the office cost hypothesis of profit, and the exchange cost theory of dividend. The study utilizes tests from a developing business sector to build up these speculations in various circumstances, and to endeavor the use of these hypotheses in creating economies. This is due to the fact that money related writing about profit strategy is not tested in these settings.

Previous study (Baker & Powel, 1999) have enhanced and empirically examined various models to explain dividend behavior. Zainul Kisman (2013) tested the impact of profit, agency costs, investment opportunity, solvency, size, and liquidity on the probability of the company on paying their dividend. Their result demonstrates that benefit, office expenses and liquidity have no noteworthy effect since backers by and large are little organizations with lower gainfulness and lower speculation opportunity. The authors highlight that venture opportunity and dissolvability have a huge effect. Other studies developed and introduced models that might determine the dividend policy. Rozeff (1982) initiated the adoption of agency cost in the dividend determinant. He improved a model of optimal dividend payout that increased dividends, lowered agency costs, but raised the transaction costs. Rozeff was using two independent variables as proxies for agency cost, e.g., the percent of stocks held by insiders and the natural logarithm of the number of shareholders. Based on 1000 samples of companies from 1974 to 1980, his study shows that

the dividend payout is negatively related to the percentage of stock held by insiders. Moreover, the authors report that outside shareholders demand a higher dividend payout if they own a higher fraction of the common equity and if their ownership is more dispersed. Further research clarified that the proprietorship structure in expansive firms might influence profits and other money-related approaches (La Porta, 2000; Gugler and Yurtoglu, 2004).

Recent research conducted by Antonija Kozul (2013) analyses the determinants of dividend size in Croatian organizations. The study demonstrates the effect on gainfulness and obligation level on the span of the profits. However, the effect of the measure of the organization and the strength of profit on the dividend size were not measurably affirmed. The explanation behind the high affectability of dividend size on the productivity and obligation level was brought on by the high budgetary limitations confronted by the Croatian organizations. Michelle Hanlon (2013) notes a negative connection between the likelihood of reporting fake profit and dividend payout. The result was also confirmed by Duha Al Kuwari (2009) in a study which investigates the determinants of dividend policies for firms listed in the Gulf Cooperation Council (GCC) country stock exchange. Duha Al Kuwari also reports that the government ownership as a part of agency theory had significant influence on the dividend policy.

Other studies which give strong support were conducted by Matthias Nnadi, Nyema Wogboroma and Bariyima Kabel (2012) who examined how dividend policy can be applied to the emerging capital markets of Africa. This study uses available accounting data of listed firms in the 29 stock exchanges in Africa from the period 1998-2009 from 1742 firms. They found that agency expenses are the most predominant determinants of profit strategy among African firms. Syed Zulfiqar Ali Shah, Wasim Ullah, and Baqir Hasnain (2010)

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examine the effect of possession structure on the profit payout conduct of firm. The authors point out that proprietorship structure and dividend payout policy were connected. It was additionally clarified by Syafaruddin Alwi (2009) that a profit approach could expand the corporate administration system to minimize any office struggle in the middle of larger part and minority shareholders.

Since dividend policy is viewed as a standout amongst the most complex issues in money-related financial aspects, this study examines how profit approach is executed in developing business sector. It should be noted that there is still no around acknowledged clarification for organizations' profit conduct for developing business sector creating a gap in the current literature on the topic. The revelation of this gap is the major concern in our study, especially under the agency theory and transaction cost theory.

To the authors' knowledge, this study is the first to investigate determinants of dividend policy by using a combination of explanatory variables, e.g., insider ownership, shareholder dispersion, bid-offer spread, and commission in the companies' stocks listed in Indonesian Stock Exchange (IDX). The stock listed in IDX represents companies from new emerging markets similar to MINT (Mexico, Indonesia, Nigeria and Turkey). Indonesia is predicted to be the next giant economy because of its strategic geographical area, rich natural resources and large labor forces. Hence, it may be that additional insight into the dividend policy debate can be gained in the case of developing countries, mainly in this country.

Our findings are two-fold. First, we demonstrate that the independent variables can affect the dividend payout ratio simultaneously. Second, we show that the bid-offer spread has significant influence on dividend policy; this is our original contribution for the development of an empirical framework in the study of dividend policy.

The rest of the paper is organized as follows. First section reviews the existing academic literature on the topic. In the second section, we develop different hypotheses. While the third section discusses the research methodology, section four presents our empirical findings. We conclude the paper in the final section.

1. Theoretical background

Agency theory has been the mainstream of financial economics that studies the conflicts of interest between people with different interests for the same assets. In many companies, there are always conflicts between shareholders and managers of the companies about the ownership and capital gain. An

irreconcilable circumstance emerges when an as far as anyone knows impartial mediator advantages by and by from an assention or choice which determines a debate particularly. For this situation, the force is appointed to operators to decide. It is named an office relationship (Brigham and Daves, 2004, p. 7). The meaning of operators is a performing artist who deals with the organization. An administrator, truth be told, has individual objectives, yet supervisors as specialists are required to boost the estimation of the organization.

In the monetary administration, the organization relationship can emerge between two gatherings, e.g., shareholders to directors, shareholders to loan bosses, and/or lenders to supervisors. Regularly the issue emerging in this association is going on between the directors and proprietors because of office struggle. The issue regularly happens when supervisors have under 100 % of the organization offers (Jensen and Meckling, 1976, p. 312), in light of the fact that not every one of the advantages will be delighted in by the administrator, so they don't focus on amplifying shareholder riches (Brigham and Daves, 2004, p. 5). There are a few office elements which add to the office struggle as underneath.

- ◆ Insider ownership. Insider ownership results from the ownership of company shares by management who actively participate in decision-making within the company (directors and commissioners), while the agency problem is influenced by insider ownership.
- ◆ Shareholder dispersion. According to Jensen and Meckling (1996), if the number of shareholders is spreading, the concentration of ownership will be split in small amounts. This prompts the lower shareholders power to control the administrative actions. The bigger the quantity of shareholders, the all the more spreading out which will make it more hard to control the organization. The recurrence of shareholder spread can bridle the ability to screen the capital markets by driving organizations to pay higher profits.

1.1. The transaction cost theory of dividend. The term "transaction cost" is frequently thought to have been coined by Ronald Coase, who used it to develop a theoretical framework for predicting when certain economic tasks would be performed by firms, and when they would be performed on the market.

Dividend payment, on the one hand, can reduce the agency problem; on the contrary, it also raises the cost. This happens if the company pays the dividend in cash, and the company's internal resources cannot

meet the investment requirements of the company. So, the company has to meet the investments needs by using external sources. Efforts to obtain capital from external parties result in additional fees which are so-called transaction costs. The greater the funds needed, the greater the transaction costs faced by firms, so, they must think again if they are going to pay dividends in large numbers.

However, companies can seek for profitable investment to gain higher cash flow of internal funds to finance the investment (Holder, Langler and Hexter, 1998). To do so, there are several factors to be considered to gain effective result as below.

Types of transaction costs.

Bhardwaj and Brooks (1992) identified kinds of transaction costs. These are bid-offer spread and commission.

- ◆ Bid-offer spread. It happens when the amount of offer price is greater than bid; it raises a difference in price between the highest price and the lowest one that the buyer wants to pay and the seller wants to sell. For example, if the bid price of shares is £25 while the offer price is £27, then, the “bid-offer spread” is £2.
- ◆ Commissions. In terms of investment, the commissions charged by brokers are important things that the investors must consider for bond, stock, and option. The rate may vary depending on the product involved and the volume traded.

2. Hypotheses development

The goal of this study is to add to an observational system of the determinants of profit strategy with reference to insider possession, shareholder scattering, bid-offer spread, and commission. The aftereffects of this study are relied upon to give information about components that decide profit arrangement through perception of autonomous variables, delivering a model, and clarifying the instrument of the relationship in the middle of subordinate and free variables. Moreover, it will investigate the hypothetical profit strategy and give new experimental confirmation from a developing business sector. As checked on above, a large portion of past studies have been led in created markets. In this way, the study utilizes the writings to concentrate on the profit approach and

their determinant figures, particularly, developing nations with their element monetary development. In this manner, a few theories are proposed in this study as below.

- ◆ H01: insider ownership, shareholder dispersion, bid-offer spread and commissions simultaneously do not have influence on dividend payout ratio.
Ha1: insider ownership, shareholder dispersion, bid-offer spread and commissions simultaneously have influence on dividend payout ratio.
- ◆ H02: insider ownership, shareholder dispersion, bid-offer spread and commissions partially do not have influence on dividend payout ratio.
Ha2: insider ownership, shareholder dispersion, bid-offer spread and commissions partially have influence on dividend payout ratio.

3. Research methodology

This study used secondary data from the publication of Indonesian Stock Exchange (IDX). The data consisted of the Liquid Companies 45 (LQ45) as blue chip shares listed on the Indonesian Stock Exchange (IDX). In order to obtain robust data from the capital market, the 10-year capital market directory is used from 2004 to 2013. To define the accurate meaning of variables, each variable used in this study is explained below.

3.1. Dividend payout ratio as dependent variable.

Dividend payout ratio is given the symbol DPR and measured by the percentage of earnings paid out in dividends (earnings per share).

$$DPS = \frac{DPR}{EPS}, \quad (1)$$

where DPR: dividend payout ratio, DPS: dividend per share, EPS: earnings per share.

3.2. Independent variables. There are four independent variables to be tested in this study.

1) Insider ownership (INS).

Insider ownership is the variable to be tested in this study. It is given the symbol INS. INS is the percentage of shares held by directors and commissioners (Cruthley and Hansen, 1989).

$$INS = \frac{\text{Number of shares held by directions and commissioners}}{\text{Total number of shares}}, \quad (2)$$

where INS: insider ownership.

2) Shareholder dispersion (SHLDR).

This variable is given the symbol SHLDR. It is defined as the variability of shareholding by the group of shareholders (Efendi, 2007, p. 45). It is represented by variance. Furthermore, in probability theory and statistics, variance measures how far a set of numbers is spread out.

A variance of zero indicates that all the values are identical. Variance is always non-negative: a small variance indicates that the data points tend to be very close to the mean (expected value) and hence to each other, while a high variance indicates that the data points are very spread out around the mean and from each other.

$$\text{Variance} = \frac{\sum_{i=1}^k (X_i - X)^2}{n - 1}. \quad (3)$$

3) Bid-offer spread (BAS).

It is the difference between the prices quoted (either by a single market maker or in a limit order book) for an immediate sale (bid) and an immediate purchase (offer). The size of the bid-offer spread in a security is one measure of the liquidity of the market and of the size of the transaction cost.

$$\text{Percent Spread} = \frac{\text{Offer} - \text{Bid}}{\text{Offer}} \times 100\%. \quad (4)$$

4) Commissions (CMS).

- ◆ Primary market. Investors do not charge commission fees to buy shares from issuers who want to go public, because it has been paid by issuers via underwriters.
- ◆ Secondary market. This variable is given the symbol CMS. Average commission of brokers in Indonesia is between 0.1-0.3%, and the average for a sales position is 0.2-0.4%. In order to buy shares, an investor uses a common approach:

$$\text{Price} = \text{Value of shares} + \text{Commissions} + \text{VAT}10\% + \text{Income tax } 0.1\%. \quad (5)$$

In this study, we use the commission (sales position) in the secondary market rate of an average 0.3 %. A commission of share is also related to trading volume activity (TVA) to measure total commissions paid by buyers to the brokers. It is the number of shares traded in a security or an entire market during a given period of time. It is simply the amount of shares that trade hands from sellers to buyers as a measure of activity. If, for example, a buyer of a stock purchases 1000 shares from a seller, then, the volume for that period increases by

1000 shares based on that transaction. TVA can be measured by:

$$\text{TVA} = \frac{\text{Volume of Share Traded}}{\text{Total of Share}}. \quad (6)$$

The peak season of TVA in IDX usually happens in the second quarter of the year. This study uses 7 days of the first week of May 2004-2013 TVA data. Furthermore, in order to measure total commission per share listed on the Indonesian Stock Exchange (IDX) in a specific period of time is as follows:

$$\begin{aligned} \text{Total Commission Paid} &= \\ &= \text{Commission rate } (0.3\%) \times \text{TVA}. \end{aligned} \quad (7)$$

3.3. Sample characteristics. This research population utilizes Liquid 45 (LQ45) company stocks which are listed on the Indonesian Capital Market directory in 2004 to 2013. LQ 45 is a forum that contains liquid and high capitalization shares in the Indonesian Capital Market. They have to fulfill the criteria below:

- ◆ big 60 from transaction activity in a regular market (trading average in the last 12 months);
- ◆ the shares have to be in high ranking based on market capitalization (trading average in the last 12 months);
- ◆ the shares are listed in the Indonesian Capital Market for at least 3 months;
- ◆ the shares ought to have great money-related conditions and development prospects. Moreover, their recurrence and measure of exchanging days in a consistent business sector must be steady.

3.4. Criteria for sample companies. Since the population has been determined based on the criteria above, the sampling technique is done by using the method of electing members purposive sampling based on the sample with certain criteria. There are several criteria for selecting the sample companies which are given below.

- ◆ The LQ 45 companies which were successively listed on the Indonesian Capital Market in 2004 to 2013 (10-year data).
- ◆ The LQ 45 companies which were successively listed on the Indonesian Capital Market continuously paid dividends in 2004 to 2013.
- ◆ The LQ 45 companies that have data on the percentage of shares held by insider ownership and institutional ownership.

The sampling technique used in this study is based on purposive sampling criteria which give the sample as described in Table 1.

Table 1. Sample of the research

No	Share code	Company name
1	AALI	Astra Agro Lestari Tbk
2	ANTM	Aneka Tambang (Persero) Tbk
3	ASII	Astra International Tbk
4	BBCA	Bank Central Asia Tbk
5	BBNI	Bank Negara Indonesia 46 (Persero) Tbk
6	GGRM	Gudang Garam Tbk
7	INDF	Indofood Sukses Makmur Tbk
8	INTP	Indocement Tunggul Prakasa Tbk
9	KLBF	Kalbe Farma Tbk
10	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk
11	SMGR	Semen Gresik (Persero) Tbk
12	TLKM	Telekomunikasi Indonesia (Persero) Tbk
13	UNTR	United Tractors Tbk
14	UNVR	Unilever Indonesia Tbk

In order to investigate the impact of insider ownership, shareholder’s dispersion, and transaction cost on dividend payout ratio, this study will undertake an empirical testing of a model with the following linear regression model on the sample above. The model is given in formula (8) below.

$$Y_i = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \varepsilon, \quad (8)$$

where Y_i = dividend payout ratio, α = intercept, β_1 - β_4 = coefficient, x_1 = insider ownership, x_2 = shareholder dispersion, x_3 = bid-offer spread, x_4 = commissions, ε = error.

3.5. Examination procedure. This study examines the simultaneous effect of independent variables (insider ownership, shareholder dispersion, bid-offer spread, and commission) on dividend payouts. Thus, by using the Simultaneous F-Test (Yang Yuqing et al., 2004), the study will show if independent variables have a significant effect on dividend payouts. The procedures to apply the formula are given in three steps below.

- ◆ Applying multicollinearity and heteroscedasticity to omit variable bias.
- ◆ Investigate whether insider ownership, shareholder dispersion, bid-offer spread, and commission cost simultaneously have impacted on dividend payouts.
- ◆ Investigating whether insider ownership, shareholder dispersion, bid-offer spread, and commissions have a separate impact on dividend payouts.

In order to examine this in more detail, this study will describe the relationship between each of the independent variables and dividend payouts. The relationship can be examined by using Separate t-test (Yang Yuqing et al., 2004) that will show if each of them has a separate significant effect on dividend payouts.

4. Empirical results

The result of the data testing for this research is divided into three parts:

4.1. Classical Assumption Tests. In order to measure that the data is valid and reliable, the Classical Assumption Tests are used. Several tests to measure the validity and the reliability of the data have been used, and the results are as follow:

◆ Kolmogorov-Smirnov test

The purpose of normality test is to examine whether a residual variable on the regression model has a normal distribution. Based on the normality test using Kolmogorov-Smirnov Test, it can be seen that Asymp.sig of 0.478 is higher than 0.05. It can be concluded that the data are in a normal distribution.

◆ Normality plots

This normality plots expect to look at whether the relapse model and the leftover variables have an ordinary dissemination. It utilizes criteria by comparing so as to use a typical likelihood plot the combined appropriation from the ordinary conveyance. The ordinary one will shape an askew line, and the leftover information plotting contrasts and the inclining. The typicality plots are given in Fig.1. From the Fig.1, it is demonstrated that the information in this relapse model is in an ordinary circulation mode.

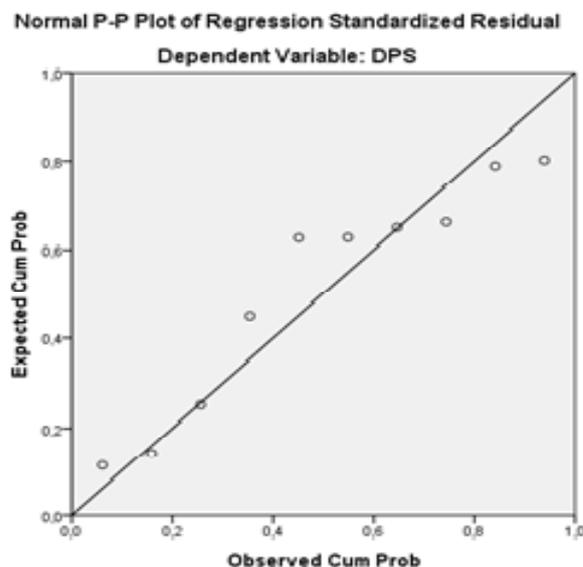


Fig. 1. Statistical Result of Normality Plots

◆ Multicollinearity

To test the multicollinearity, normality test is used. The result of normality test is given in Table 2. The purpose of this test is to examine if there is any a correlation between the independent variables on the regression model.

Table 2. Normality test result

Variable	Tolerance	VIF	Criteria
BAS	0.837	1.194	No multicollinearity
CMS	0.372	2.687	No multicollinearity
INS	0.337	2.963	No multicollinearity
SHLDR	0.927	1.079	No multicollinearity

Based on the result above, it can be seen that the tolerance value is more than 0.10, and VIF value is less than 10.00. It can be concluded that there is no multicollinearity in this study.

◆ Durbin-Watson test

To examine if there is any correlation between disturbance on the t-period with the error on the t1 (prior period) on the regression linear model, Durbin Watson test can be used.

Table 3. Durbin-Watson test

d	dl	du	4-dl	4-du	Criteria
2.101	1.376	2.414	2.624	1.586	There is no autocorrelation

All of the testing results showed that the data is reliable and valid; therefore, the regression analysis method could be done.

4.2. Regression analysis. The result of the regression analysis is as follows:

Table 4. Regression result

Variable	Coefficient regression	Beta	t	Sig
Constanta		3.043		
BAS	0.225	0.946	4.795	0.005
CMS	-9.508	-.482	-1.631	0.164
INS	-0.043	-.946	-3.046	0.029
SHLDR	0.002	0.142	0.759	0.482
Fcount = 6.429				
R2 = 0.837				

Based on the Table above, we get the linear regression as follows:

$$DPS = 3.043 + 0.225BAS - 9.508CMS - 0.043INS + 0.002SHLDR, \tag{9}$$

- ◆ a = 3.043; meaning that where BAS, CMS, INS, and SHLDR are constant (static of no change), DPS will have a constant value of 3.043.
- ◆ b₁ = 0.225; meaning if BAS increases, DPS will increase 0.225 level with the assumption that the other independent variables are constant.
- ◆ b₂ = -9.508; meaning if CMS increases, DPS will decrease -9.508 level with the assumption that the other independent variables are constant.
- ◆ b₃ = -0.043; meaning if INS increases, DPS will decrease -0.043 with the assumption that the other independent variables are constant.

- ◆ b₄ = 0.002; meaning if SHLDR increases, DPS will increase 0.002 with the assumption that the other independent variables are constant.

4.3. Hypotheses testing.

- ◆ Test of the hypothesis alternative 1 (F-test)

The testing result is given for H1 which states that “insider ownership, shareholder dispersion, bid-offer spread and commissions simultaneously have influence on dividend payout ratio”. The testing has a goal to understand how independent variables can simultaneously have effect on the dependent variable.

There are two hypotheses which are tested for the BAS, CMS, INS, and SHLDR, and their relationship toward DPR which can be interpreted as below.

$H_0 = 0$ (BAS, CMS, INS, and SHLDR have no influence on DPR).

$H_{a1} \neq 0$ (BAS, CMS, INS, and SHLDR have influence on DPR).

Since the coefficient of confidence is 95% ($\alpha = 0.05$), therefore, it, then, sets the hypothesis testing criteria that H_0 is accepted if $F_{count} < F_{table}$ with value > 0.05 and vice versa. In addition, since $F_{table} = F_{k;n-k} = F_{4;6} = 4.53$, we compare both F_{count} and F_{table} . From the Table 4 on regression result, $F_{count} = 6.429$ with the significant value of 0.033. Since $F_{count} 6.429 > F_{table}$ with the significance value $0.033 < 0.05$, we decide that H_0 is rejected and H_{a1} is accepted. This means that BAS, CMS, INS, and SHLDR have significant influence toward DPR.

- ◆ Testing of hypothesis alternative 2 (t-test) for the variable bid-and-offer spread

The t-test is used to test the variable H_2 “bid-offer spread, commissions, insider ownership, and shareholder dispersion that, partially, have influence on dividend payout ratio”. In order to understand if Bid Offer Spread (BAS) has a significant effect to the DPR, the steps of t-test are as follow.

There are two hypotheses which are tested for the relationship between BAS and DPR which can be interpreted as follows:

$H_0 = 0$ (BAS has no influence on DPR).

$H_{a21} \neq b_1 \neq 0$ (BAS has influence on DPR).

Since the coefficient of confidence is 95% ($\alpha = 0.05$), therefore, we can set the hypothesis testing criteria that H_0 is accepted if $t_{count} < t_{table}$ with value > 0.05 and vice versa. In addition, since $t_{table} = t_{\alpha/2;n-k-1} = t_{0.025;5} = 2.571$, we compare both t_{count} and t_{table} . From the analysis result with SPSS 17.00, we get

$t_{count} = 4.795$ with the significant value of 0.005. Since $t_{count=4.795} > t_{table=2.571}$ with the significance value $0.005 < 0.05$, we decide that H_0 is rejected and H_{a21} is accepted. This means that BAS has significant influence toward DPR.

- ◆ Test of the hypothesis alternative 2 (t-test) for the variable commission (CMS).

In this stride, it will test if commission has impact on the dividend payout ratio. Keeping in mind the end goal to test the relationship, we proposed two speculations for the relationship in the middle of CMS and DPR which can be deciphered as follows:

$H_0 = b_1 = 0$ (CMS has no influence on DPR).

$H_{a22} \neq b_1 \neq 0$ (CMS has influence on DPR).

Since the coefficient of confidence is 95% ($\alpha = 0.05$), therefore, we can set the hypothesis testing criteria that H_0 is accepted if $t_{count} < t_{table}$ with value > 0.05 and vice versa. In addition, since $t_{table} = t_{a/2;n-k-1} = t_{0.025;5} = 2.571$, we compare both t_{count} and t_{table} . From the analysis result with SPSS 17.00, we get $t_{count} = -1.631$ with the significant value of 0.005. Since $t_{count} = -1.631 > t_{table=2.571}$ with the significance value $0.164 < 0.05$, we decide that H_0 is accepted and H_{a22} is rejected. This means that CMS has no significant influence toward DPR.

- ◆ Test of the hypothesis alternative 2 (t-test) for the variable insider ownership (INS)

In the fourth analysis, we want to know if insider ownership has impact on the dividend payout ratio. In order to test the relationship, we proposed two hypotheses for the relationship between them which can be interpreted as follows.

$H_0 = b_1 = 0$ (INS has no influence on DPR);

$H_{a23} \neq b_1 \neq 0$ (INS has influence on DPR).

Similar to earlier tests, we take the coefficient of confidence 95% ($\alpha = 0.05$) and then set the hypothesis testing criteria that H_0 is accepted if $t_{count} < t_{table}$ with value > 0.05 and vice versa. In addition, since $t_{table} = t_{a/2;n-k-1} = t_{0.025;5} = 2.571$, with the values for both t_{count} and t_{table} we compare them to determine which hypothesis is accepted or rejected. From the analysis result with SPSS 17.00, we get $t_{count} = -3.046$ with the significant value of 0.029. Since $t_{count} = -3.046 > t_{table=2.571}$ with the significance value $0.029 < 0.05$, we decide that H_0 is rejected and H_{a23} is accepted. This means that INS has significant influence toward DPR.

- ◆ Test of the hypothesis alternative 2 (t-test) for the variable shareholder dispersion (SHLDR)

In the fifth analysis, we want to determine if the variable shareholder dispersion (SHLDR) has

influence on the dividend payout ratio. Through statistical analysis of t-test, we want to test the hypothesis that insider ownership can impact the dividend payout ratio; we propose two hypotheses as follows:

$H_0 = b_1 = 0$ (SHLDR has no influence on DPR);

$H_{a24} \neq b_1 \neq 0$ (SHLDR has influence on DPR).

Taking the coefficient of confidence 95% ($\alpha = 0.05$), we set the hypothesis testing criteria that H_0 is accepted if $t_{count} < t_{table}$ with value > 0.05 and vice versa. In addition, since $t_{table} = t_{a/2;n-k-1} = t_{0.025;5} = 2.571$, with the values for both t_{count} and t_{table} we compare them to determine which hypotheses is accepted or rejected. From the analysis result with SPSS 17.00, we get $t_{count} = 0.759$ with the significant value of 0.482. Since $t_{count} = 0.759 > t_{table=2.571}$ with the significance value $0.482 > 0.05$, we decide that H_0 is accepted and H_{a24} is rejected. This means that SHLDR has no significant influence toward DPR.

- ◆ Coefficient of determination

By using the SPSS 17.00, this research got the coefficient of determination (R^2) = 0.837. It means that the variables BAS, CMS, INS, and SHLDR have influence on DPR by 87.3%, while the remaining 13.7% is affected by the other variables which are not studied in this research.

Conclusions

This study has an objective to build up an experimental structure of the determinants of profit strategy. More specifically, we examine insider proprietorship, shareholder scattering, bid-offer spread, and commission. We observe that both the whole and halfway variables have noteworthy association with profit arrangement. Moreover, exchange expenses and organization cost, in particular, have the best impact toward profit strategy, and the relationship is additionally significant. From the measurable testing and investigation results, it can be concluded that both variables have huge association with profit approach.

Bid-offer spread is measuring asymmetric information between dealers and investors. The amount of information rate of the asymmetric ones also impact on the incoming information patterns. Prior to the announcement of the new specific information from one company, the level of asymmetric information must be considered important. Examples of events that give particular data of an organization are the declaration of a merger and profit declarations. Particularly for the merchant or the master, they are committed to the organization's shares amassing viewed as a gathering that does not have the data (uninformed

traders). Parties without the data (uninformed traders) will endure awesome misfortunes, since they confront higher danger to exchange without enough data. A few studies proposed that, in such condition, the merchants experience higher away data, they should enlarge the offer spread (the wellspring of pay of the merchants) to lessen the likelihood of misfortunes from the business sector turbulence. Through augmenting the offer spread

before the declaration of benefits or profits, likewise is affected the profit payout proportion.

Our empirical findings show that the independent variables can affect the dividend payout ratio simultaneously. We demonstrate that the bid-offer spread has significant influence on dividend policy; this is our original contribution to the development of an empirical framework in the study of dividend policy.

References

1. Baker, H.K. & Powell, G.E. (1999). How corporate managers view dividend policy? *Quarterly Journal of Business and Economics*, 38 (2), pp. 17-27.
2. Fischer, B. (1976). The pricing of commodity contracts, *Journal of Financial Economics*, 3, pp. 167-179.
3. Carlson, J.B. (2001). Why is the Dividend Yield so Low? Federal Reserve Bank of Cleveland, *Economic Commentary*, pp. 50-54.
4. Zainul, K. (2013). Factors Influencing Dividend: Pay or Not to Pay on the Indonesia Stock Exchange, *International Journal of Innovations in Business*, 2 (7).
5. Antonija, K. & Mihalina, E. (2013). The determinants of the dividend size in Croatia, *UTMS Journal of Economics*, 4 (2), pp. 143-151.
6. La Porta, R., Lopez-de-Silanes, L. & Shleifer, A. (1999). Corporate Ownership around the World, *The Journal of Finance*, 54 (2), pp. 471-517
7. Rozeff, M.S. (1982). Growth, beta and agency costs as determinants of dividend-payout ratios, *Journal of Financial Research*, 5 (3), pp. 249-259.
8. Napa J. Awat. (1999). *Mathematical Approach for Financial Management*. Jakarta: GramediaPustakaUtama.
9. Michael, N.B. (2013). Agency Conflict and Corporate Dividend Policy Decision in Nigeria, *Asian Economic and Financial Review*, 3 (8), pp. 1110-1121.
10. Brockma, P. & Unlu, E. (2009). Dividend Policy, Creditor Rights, and the Agency Costs of Debt, available at: <http://www.elsevier.com/locate/jfec>, *Journal of Financial Economics*, 92, pp. 276-299.
11. Ravinder, K., Bhardwaj, Leroy, D. & Brooks. (1992). The January Anomaly: Effects of Low Share Price, Transaction Costs, and Bid-Offer Bias, *The Journal of Finance*, 47 (2), June 1992.
12. Rozeff, M.S. (1982). Growth, beta and agency costs as determinants of dividend-payout ratios, *Journal of Financial Research*, 5 (3), pp. 249-259.
13. Seok, W.L. (2014). Bank Characteristics and Payout Policy, *Asian Social Science*, 10 (1)
14. Setianto, R.H., Manap, T.A.A. (2011). The behavior of Indonesian Stock Market: Structural breaks and nonlinearity, *GadjahMada International Journal of Business*.
15. Syafaruddin, A. (2009). Dividend and Debt Policy as Corporate, Government Mechanism: Indonesian Evidence, *JurnalPengurusan*, 29 (2009), pp. 111-127.
16. Sumninder, K.B. & Prabhhot, K. (2013). Impact of Dividend Policy of Shareholder's Wealth: An Empirical Analysis of Indian Information Technology Sector, *Asia Pasific and Accounting Review*, 1 (3).
17. Tangjitprom, N. (2011). The Calendar Anomalies of Stock Return in Thailand, *Journal of Modern Accounting and Auditing*, ISSN 1548-6583, June 2011, 7 (6), pp. 565-577
18. Williamson, O.E. (1981). The Economics of Organization: the Transaction cost approach, *American Journal of Sociology*, 87 (3), pp. 548-77
19. Yakubu, A.S., Seyram, P.K. & Salakpi, A. (2014). Market Reaction to Dividend Initiation Announcements on The Ghana Stock Exchange: The Case of Industry Analysis, *Asian Economic and Financial Review*, 4 (4), pp. 440-450.
20. Yang, Y., Monserud, R. & Huang, S. (2004). An Evaluation of Diagnostic Test and Their Roles in Validating Forest Biometric Model, *Canadian Journal of Forest Research*, 34 (3), pp. 619-629.