

# Liquidity and Profitability to Dividend Policy with IOS as Moderation at Manufacturing Companies Listed on IDX

Erma Muqita Aldini<sup>1</sup>, Budi Santoso<sup>2</sup>, I Nyoman Nugraha Ardana Putra<sup>3</sup>

<sup>1,2,3</sup>Mataram University, The Faculty of Economics and Business, Master of Management, Pendidikan Road, Mataram 83125, Indonesia

**Abstract:** *Dividend policy is a decision on whether profits are earned the company will be distributed to investor as dividends or will be retained in the form of retained earnings for future investment. IOS will have an impact on dividend policy because management will be faced agency conflicts with investor. This study aims to analyze the effect of liquidity and profitability on dividend policy with IOS as moderation at manufacturing companies listed on Indonesia Stock Exchange (IDX). The results of this study indicate that liquidity and profitability influenced positive and significant effect on dividend policy. IOS is proven to weaken the positive effect of liquidity and profitability on dividend policy. And, Investment opportunity set is proved as pure moderator variable on liquidity and profitability relationship against dividend policy.*

**Keywords:** Liquidity, Profitability, Dividend Policy, IOS

## 1. Introduction

Technological progress marked by the 4th industrial revolution (industry 4.0) has an impact on the development of the world economy which is experiencing rapid growth. This is indicated by the emergence of ease in buying and selling transactions carried out on the capital market. The capital market is a very effective media to be able to channel and invest funds that are productive and profitable especially for investors. Through capital market activities, companies can obtain funds to finance operational activities and company expansion.

Every company needs funds for operational activities, funds available in the company can be obtained from various funding sources, namely in the form of owner's capital, loans, retained earnings to the sale or issuance of shares to investors. According to Horne and Wachowicz (2012) company financial managers are faced with three choices of management decisions, namely investment decisions, funding decisions and dividend decisions. One of the company's goals in finance is to maximize company value and prosper shareholders, this is in line with the statement of Husnan (2010) that an investment is said to be profitable if the investment can make investors richer. This means that investor prosperity becomes greater after investing.

In its work activities, the company is expected to be able to provide profits to increase the company's assets as well as investors who will benefit in the form of dividends or capital gains. Dividend policy is a decision to determine how much dividend must be shared with shareholders. Beginning with how the management treats the profits obtained by the company, in general as part of the earnings after tax is distributed to shareholders in the form of dividends and partly reinvested into the company in the form of retained earnings. Retained earnings are an important source of funds to finance the growth of the company, while dividends are cash outflows paid to shareholders. Mulyono (2009) states that companies always want growth for the company, as well

as dividend payments to investors, but both goals are always conflicting.

Dividend policy is one of three policies that can be used by companies to be able to maximize the prosperity of their shareholders, but in practice these objectives are constrained because managers have other objectives that conflict with company goals and are the cause of agency conflicts (Putra, 2006). Agency conflict is the interests of shareholders with their dividends and the interests of the company with their retained earnings. For shareholders, dividends are the rate of return on their investment in the form of share ownership of a company. Furthermore, for management, dividends are cash outflows that will reduce the company's cash. Dividend policy is an interesting problem because it will meet investors' expectations, on the other hand the policy is feared to be able to hamper growth and threaten the survival of the company.

Liquidity is one of the main factors that influence the dividend policy owned by the company. Liquidity is the ability of a company to fulfill its short-term financial obligations. The company's liquidity will greatly influence the size of dividend payments, so the stronger the liquidity position of a company, the greater the ability to pay dividends. Companies that have better liquidity will be able to pay more dividends (Suharli, 2007).

Dividend policy can also be influenced by profitability. Profitability is the ability of a company to earn profits in relation to sales, total assets, and own capital (Sartono, 2010). This ratio can be of concern to prospective investors and shareholders because it relates to dividends that will be accepted. In line with Suharli (2007) which states that management will pay dividends to signal the success of the company to book profits or profits.

Companies that earn a profit will pay a larger portion of dividends, thus showing influential profitability in dividend distribution.

There are differences in research result between the influenced of independent variables on the dependent variable of the study. This can occur because of an influence other than the independent variable in the relationship. Hartono (2010) states that moderation variables are identified from previous studies that have a conclusion of a causal relationship which results in conflict, either in the form of significance or direction. If the previous research shows conflict, it is assumed that there are other variables that moderate the previous causal relationship. A condition of investment opportunity in the company is assumed to influence the relationship of independent variables to the dependent variable, so in this study IOS is used as a moderating variable between the relationship of liquidity to dividend policy, as well as the relationship of profitability to dividend policy.

Companies that have high IOS reflect companies that have high growth, and high growth will require high financing to fund investment opportunities. Cash or retained earnings in the company are not fully distributed for dividend payments, but management will prioritize investment opportunities to fund the company's growth. The free cash flow hypothesis presented by Jensen (1986) states that companies with higher growth opportunities have low free cash flow because most of the available funds are used for investment in projects that have a positive NPV value. This is supported by the statement Mulyono (2009) which states that companies that have a high IOS certainly have a high growth opportunity, and a high level of growth has an impact on reducing dividends.

Companies that have high liquidity with high IOS can weaken the effect of liquidity on dividend policy, as well as profitability, if the profitability of high companies with high IOS will weaken the effect of profitability on dividend policy. Making Indonesia 4.0 is a roadmap for industry 4.0 in Indonesia. Making Indonesia 4.0 is integrated to implement a number of strategies for industry 4.0 in Indonesia and will bring great opportunities for the manufacturing industry to become an accelerator in achieving Indonesia's vision of becoming the world's top ten economy by 2030 (Ministry of Industry under the Government of the Republic of Indonesia). The object in this study uses a manufacturing company listed on the IDX because the manufacturing sector is the focus of the object of Making Indonesia 4.0 and manufacturing companies consist of various industrial sub-sectors which are the most dominant contributors to Indonesia's growth, and the industry average dividends the biggest for investors. This study took the period of 2011-2015 because during this period the exchange rate of the Rupiah against the US Dollar depreciated annually (closing price).

The weakening of the Rupiah exchange rate which resulted in rising inflation in Indonesia caused higher prices of local raw materials, as well as the increasing amount of Rupiah that had to be spent on the purchase of imported raw materials because the value of the Rupiah depreciated against the US Dollar. The biggest impact can be felt by the manufacturing industry, which is related to operational activities that require raw materials to produce. This causes production output to decrease or product prices to increase

which ultimately affects the company and shareholders. The following are presented empirical data regarding the development of the exchange rate of the Rupiah against the US Dollar and inflation in Indonesia in the 2011-2015 research period.

In the manufacturing industry there are many issuers listed on IDX, the type of manufacturing industry has a large industrial sub-sector and a large population of companies. Of the 555 listed companies listed on the Indonesia Stock Exchange, 149 issuers are companies that are included in the manufacturing industry. This research is expected to be able to represent conditions and can show the reaction of the capital market as a whole on IDX.

**Table 1: Industry Average**

Year	Current Assets (Rp.000)	Net Profit (Rp.000)	Dividend (Rp)	Stock Price (Rp)
2011	8,277,211,246	2,464,694,754	269	30,176
2012	9,029,182,651	2,573,223,648	202	46,745
2013	10,621,312,447	2,806,851,324	214	68,989
2014	11,659,743,160	2,698,899,578	247	11,323
2015	12,463,669,870	2,196,472,339	363	9,720

Based on company industry average data shown in Table 1, it can be seen that the trend of data movement during the 2011-2015 period has fluctuating values. Current assets show values that always increase every year during the observation period. However, different things happen to net income, dividends, and stock prices that have a tendency to fluctuate in value over the same time period of observation.

## 2. Literature Review

### 2.1 Dividend Policy

Stice et. al (2005) states that dividends are the proportion of profits to shareholders of a company proportionally in accordance with the number of shares held by each owner. Dividend distribution will be able to reduce retained earnings and cash available to the company, but the distribution of profits is one of the main goals of a business. Dividends are given after obtaining approval from the shareholders at the General Meeting of Shareholders (GMS). In general, dividends are an attraction for shareholders with a long-term orientation. Dividends distributed to shareholders can be expressed as a percentage of the value of shares or a sum of money per share owned.

The decision to determine whether profits will be used as dividends or as retained earnings to finance investments in the future is called dividend policy. There are several theories that are used as the basis for determining dividends, including dividend irrelevance theory, bird in the hand theory, tax preference theory, information content or signaling hypothesis, clientele effect theory, and dividend residual theory.

### 2.2 Free Cash Flow Hypothesis

Free cash flow is the company's operating cash minus required equity investments. According to Jensen (1986), free flow is cash flow which is the remainder of the funding

of all projects that generate positive net present value (NPV) discounted at the level of cost of relevant capital. This free cash flow often triggers differences in interests between shareholders and managers.

The free cash flow hypothesis presented by Jensen (1986) states that companies with higher growth opportunities have low free cash flow because most of the available funds are used for investment in projects that have a positive NPV value. Free cash flow can affect the dividend policy that will be determined by the company because according to Ross et al (2000), free cash flow is the cash of the company that can be distributed to shareholders who are not used for working capital or investment in fixed assets in the form of dividend payment. Free cash flow shows a picture for investors that dividends distributed by companies are not just strategies to get around the market with the aim of increasing stock prices.

### 2.3 Agency Theory

Based on this study, agency theory is able to explain the problem of dividend policy that arises because of inconsistencies in dividend distribution. This happens because there are differences of interests between the owner of the company and the manager. Jensen and Meckling (1976) propose agency theory which explains that the interests of management and the interests of shareholders often conflict and cause conflict. This happens because managers often prioritize personal interests. Shareholders do not like the interests of managers, because they can add costs to companies that will reduce profits received.

Shareholders want these costs to be financed by external funds, such as debt that is at high risk for conducting operations in hopes of gaining high profits. On the other hand, managers prefer low risk versus high risk. Managers tend to want these costs to be financed from internal funding sources within the company because internal funding sources have a lower risk than external funding sources. The lower risk allows no things that can make the company go bankrupt, so the management can protect its position.

### 2.4 Investment Opportunity Set

Investment opportunity set (IOS) is described with the company as a combination of real assets and investment choice in the future. IOS is shown as the value of the company that depends on expenditures set by management in the future, which at present is investment choices that are expected to produce greater returns (Gaver and Gaver, 1993).

The company's investment opportunity can influence dividends received by shareholders. This is in line with the study conducted by Sadalia & Syafitri (2008) which concluded that there was a relationship between investment opportunity and dividend policy. Investment Opportunities indicate a company's investment or growth option depending on the discretionary expenditure decided by the manager. When the condition of the company is good, management will tend to choose new investments rather than paying dividends (Suharli, 2007).

### 2.5 Framework

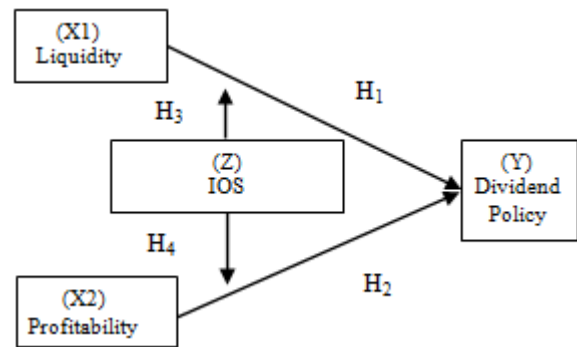


Figure 1: Research Conceptual Framework

### 2.6 Hypothesis

H<sub>1</sub>: The higher liquidity, then the dividend policy set by the company will increase.

H<sub>2</sub>: The higher profitability, the dividend policy set by the company will increase.

H<sub>3</sub>: The higher investment opportunity set held by the company, will weaken the effect of liquidity on dividend policy.

H<sub>4</sub>: The higher investment opportunity set owned by the company, will weaken the effect of profitability on dividend policy.

## 3. Methodology

### 3.1 Types of Research

This type of research is associative causal. The research model used was a sample survey. The population in this study are all manufacturing companies listed on the IDX. Determination of the sample in this study is a manufacturing company listed on IDX through a purposive sampling technique, with criteria for the company that will be the sample in this study are as follows:

- 1) Manufacturing companies listed on the IDX as of December 31, 2018
- 2) Manufacturing companies that are listed on the IDX continuously for the period 2011-2015
- 3) Companies that publish continuously audited financial statements for 2011-2015
- 4) Companies that have complete data about the variables in the study

### 3.2 Operational Definition of Variables

#### 3.2.1 Liquidity

Liquidity is the ability of a company to fulfill all its short-term financial obligations and fund its business operations. In this study the measurement of liquidity is proxy by Current Ratio (CR).

#### 3.2.2 Profitability

Profitability is the ability of a company to earn profits for a certain period of time and provide an overview of the level of management effectiveness in carrying out its operations related to sales, total assets, and own capital. In this study profitability is proxy by return on equity (ROE).

**3.2.3 Dividend Policy**

Dividend policy is a policy carried out by the company by distributing company profits in cash. In this study dividend policy is proxy by the dividend payout ratio (DPR).

**3.2.4 IOS**

IOS is a combination of real assets and investment options in the future. Investment opportunity set (IOS) describes the extent of opportunities or investment opportunities for companies. In this study proxy by market to book value of equity (MBVE).

**3.3 Data Analysis Procedure**

Data analysis is a process for processing data whose stages are described in accordance with the analytical procedure that will be used so that the data is easily understood and to test the hypothesis. Data analysis in this study are used descriptive statistical analysis and inferential statistical analysis.

**4. Data Analysis and Result**

**4.1 Descriptive Statistical Analysis**

This analysis was carried out to find out an overview of the variables used in the study. Descriptive statistics of the variables used in this study will be presented in several tables according to the variables in the study.

**Table 2: Descriptive Statistic**

	Mean	Median	Minimum	Maximum	Std. Dev.
CR	2,3841	1,6450	0,51000	11,740	2,0333
ROE	0,27820	0,17000	0,010000	1,4400	0,31691
DPR	0,38750	0,38000	0,030000	0,98000	0,18752
MBVE	5,9340	2,3750	0,41000	58,480	11,959

Table 2 shows that the average current ratio (CR) of 20 samples of manufacturing companies listed on IDX during the 2011-2015 research period was 2.38 percent with a standard deviation of 2.03 percent. This shows the average amount of total current assets to current debt is 2.38 percent. Table 3 shows that the average return on equity (ROE) owned by 20 samples of manufacturing companies listed on IDX during the 2011-2015 study period was 0.28 percent with a standard deviation of 0.32 percent. This shows the average total net income after tax on capital is 0.28 percent. Table 3 shows that the average dividend payout ratio (DPR) held by 20 samples of manufacturing companies listed on the Indonesia Stock Exchange during the 2011-2015 research period was 0.39 percent with a standard deviation of 0.19 percent. This shows the average total cash dividend per share of earnings per share is 0.39 percent.

Table 3 shows that the average market to book value of equity (MBVE) owned by 20 samples of manufacturing companies listed on the Indonesia Stock Exchange during the 2011-2015 study period was 5.93 percent with a standard deviation of 11.96 percent. This shows the magnitude of the average number of outstanding shares multiplied by the closing price of shares to total equity at 5.93 percent.

**4.2 Inferential Statistical Analysis**

This analysis was conducted to find conclusions based on fewer sample data to be more general conclusions for a population. In inferential statistical analysis there are assumptions that need to be fulfilled following the analysis tool used, namely the use of regression analysis, the assumptions of the data must meet the assumptions of regression analysis. Inferential statistics will test hypotheses which aim to see whether the statistical measures used can be drawn into broader conclusions in the population. There are six statistical equations in this study that have passed the test of basic assumptions and classical assumptions.

**Table 3: Equation I**

	Coefficient	Std. Error	t-ratio	p-value
const	3,426979	0,0286554	14,90	<0,0001
CR	1,165593	0,0916442	3,807	0,0074
Adjusted R-squared				0,223673
P-value(F)				0,007384

By looking at the Table 3, the linear regression equation can be arranged as follows:

$$Y = 3,43 + 1,17 X_1$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.2237 or 22.37 percent.

The value of p-value (F) which explains the feasibility of the regression model of 0.007384 or less than 0.05 so that the regression model is declared feasible.

**Table 4: Equation II**

	Coefficient	Std. Error	t-ratio	p-value
const	4,328036	0,234366	14,00	<0,0001
ROE	2,213746	0,557344	3,835	0,0002
Adjusted R-squared				0,311623
P-value(F)				0,000222

By looking at the Table 4, the linear regression equation can be arranged as follows:

$$Y = 4,32 + 2,21 X_1$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.3116 or 31.16 percent.

The value of p-value (F) which explains the feasibility of the regression model of 0,000222 or less than 0.05 so that the regression model is declared feasible.

**Table 5: Equation III**

	Coefficient	Std. Error	t-ratio	p-value
const	4,368106	0,302633	12,164	<0,0001
CR	2,612187	0,104994	4,083	<0,0001
MBVE	-0,710265	0,088189	-0,805	0,4226
Adjusted R-squared				0,227133
P-value(F)				0,000093

By looking at the Table 5, the linear regression equation can be arranged as follows:

$$Y = 4,37 + 2,61 X_1 - 0,71 X_2$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.2271 or 22.71 percent.

The value of p-value (F) that explains the feasibility of the regression model is 0.000093 or less than 0.05 so that the regression model is declared feasible.

**Table 6: Equation IV**

	Coefficient	Std. Error	t-ratio	p-value
const	3,363998	0,0280488	12,98	<0,0001
ROE	2,0922671	0,00412881	2,235	0,0277
MBVE	-0,112328	0,155805	-0,7210	0,4727
Adjusted R-squared				0,256019
P-value(F)				0,000099

By looking at the Table 6, the linear regression equation can be arranged as follows:

$$Y = 3,36 + 2,09 X_1 - 0,11 X_2$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.2560 or 25.60 percent.

The value of p-value (F) which explains the feasibility of the regression model of 0.000099 or less than 0.05 so that the regression model is declared feasible.

**Table 7: Equation V**

	Coefficient	Std. Error	t-ratio	p-value
const	4,371752	0,0301340	12,34	<0,0001
CR	3,021719	0,0128319	3,693	0,0438
MBVE	-0,894204	0,00367063	-0,244	0,8081
CR*MBVE	-0,795229	0,00510403	-8,558	0,0122
Adjusted R-squared				0,369357
P-value(F)				0,000112

By looking at the Table 7, the linear regression moderation equation can be arranged as follows:

$$Y = 4,37 + 3,02 X_1 - 0,89 X_2 - 0,79 X_3$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.3693 or 36.93 percent.

The value of p-value (F) that explains the feasibility of the regression model is 0,000112 or less than 0.05 so that the regression model is declared feasible.

**Table 8: Equation VI**

	Coefficient	Std. Error	t-ratio	p-value
const	4,322605	0,0359738	8,968	<0,0001
ROE	1,0271831	0,0107476	2,529	0,0131
MBVE	-0,761279	0,155319	-0,4901	0,6252
ROE*MBVE	-1,145664	0,00806545	-4,806	0,0040
Adjusted R-squared				0,175249
P-value(F)				0,000081

By looking at the Table 8, the linear regression moderation equation can be arranged as follows:

$$Y = 4,32 + 1,03 X_1 - 0,76 X_2 - 1,14 X_3$$

The adjusted R-squared value which explains that the ability of the independent variable in explaining the dependent variable is 0.1752 or 17.52 percent.

The value of p-value (F) which explains the feasibility of the regression model is 0.000081 or less than 0.05 so that the regression model is declared feasible.

### 4.3 Result

#### 4.3.1 Effect of Liquidity on Dividend Policy

The hypothesis in this study is that the higher the liquidity that is owned, then the dividend policy set by the company will increase. The results of data analysis state that liquidity has a positive and significant influence on dividend policy. That is, it can be concluded that the first hypothesis is proven (accept  $H_1$  and reject  $H_{01}$ ).

Liquidity has a positive and significant coefficient, this means that liquidity is directly proportional to dividend policy. If liquidity increases, the amount of dividends distributed will increase. Positive signs in liquidity indicate an increase in the amount of cash from companies that can increase dividend payments. In accordance with Riyanto (2011) and Hanafi (2004) who say that liquidity is one of the main factors that determine the dividend policy to be taken by the company.

Liquidity is the company's ability to fund the company's operations and pay off its short-term obligations. Therefore companies that have good liquidity will pay better dividends too, so that the liquidity conditions of the company will affect the dividend policy that will be determined by the company's management. Sartono (2010) states that a high level of liquidity can describe a good company performance because with a good level of liquidity the company will more easily fulfill the obligation to pay dividends.

These results prove that the liquidity condition is still a consideration for the company's management in determining the dividend policy that will be taken, and liquidity problems are still an important topic that must be resolved by the company given its impact.

#### 4.3.2 Effect of Profitability on Dividend Policy

The hypothesis in this study is that the higher the profitability, the dividend policy set by the company will increase. The results of data analysis state that profitability has a positive and significant influence on dividend policy. That is, it can be concluded that the second hypothesis is proven (accepting  $H_2$  and rejecting  $H_{02}$ ).

Profitability has a positive and significant coefficient, this means that profitability is directly proportional to dividend policy. If profitability increases, the amount of dividends distributed will increase. In the theory of information content or signaling hypothesis states that the increase in dividends is a signal to investors that management predicts a good income in the future.

Profitability is the company's ability to generate profits from invested capital. Dividends distributed to investors come from the profitability obtained by the company from the

results of its work activities, so that companies with good profitability are able to improve the company's dividend policy. Gitman et. al. (2012) states that a company's ability to earn profits is a leading indicator of a company's ability to pay dividends, so profitability is an important factor used by company management in determining dividend policy. Companies with profitability

The results of this study prove that the condition of company profitability will have an impact on dividend policy taken by the company, because the increase in profitability will also increase the cash inflows which are a source of funds for the cash dividend policy.

#### 4.3.3 Effect of Liquidity on Dividend Policy with IOS as a Moderation

The hypothesis in this study is that the higher the investment opportunity set held by the company, the weaker the effect of liquidity on dividend policy. The results of data analysis state that an increase in the investment opportunity set held by the company weakens the effect of liquidity on dividend policy. That is, it can be concluded that the third hypothesis is proven (accepting  $H_3$  and rejecting  $H_{03}$ ).

The results of the study also show that the moderation model is used precisely to make relations between variables, in this case the investment opportunity set is able to moderate the effect of liquidity on dividend policy. Tests carried out if not using the moderation model or linear regression model, shows that the investment opportunity set has a negative and not significant effect on dividend policy. That is, the investment opportunity set is suitable to be used as a moderating variable in the study because it can weaken the positive relationship of liquidity to dividend policy.

Keown et. al (2004) said the position of liquidity greatly influences the ability to pay dividends because dividends are paid in cash and not with retained earnings, so the company must have cash available to pay dividends. The more liquidity of a company, allowing the payment of dividends will be greater, but it is different if the company is faced with a situation of investment opportunities. Under these circumstances, the company will need funds to finance its investment.

The free cash flow hypothesis proposed by Jensen (1986) states that companies with higher growth opportunities have low free cash flow because most of the available funds are used to invest in projects that have a positive NPV value, and this will have an impact on decrease in percentage of dividend policy. The free cash flow hypothesis assumes that dividends will be distributed after the company invests in a project with a positive NPV value, meaning that the company implements a dividend policy with dividend residual theory.

The results of data analysis in this study concluded that companies will tend to use existing cash funds to finance high IOS, and this will have an impact on reducing available cash funds to pay dividends.

#### 4.3.4 Effect of Profitability on Dividend Policy with IOS as a Moderation

The hypothesis in this study is that the higher the investment opportunity set held by the company, the weaker the effect of profitability on dividend policy. Data analysis in this study states that an increase in the investment opportunity set held by a company weakens the effect of profitability on dividend policy. That is, it can be concluded that the fourth hypothesis is proven (accepting  $H_4$  and rejecting  $H_{04}$ ).

The results showed that the moderating model was used precisely to make the relationship between variables, in this case the investment opportunity set was able to moderate the effect of profitability on dividend policy. Tests carried out if not using the moderation model or linear regression model, indicate that the investment opportunity set has a negative and insignificant effect on dividend policy. That is, the investment opportunity set is suitable to be used as a moderating variable in the study because it can weaken the positive relationship of profitability to dividend policy.

Companies with good profitability tend to have good dividend policies too. The higher the profitability the company has, the greater the opportunity to pay dividends. However, this becomes different if the company is faced with a condition where there are opportunities to invest.

High investment opportunities are usually faced by companies that have large profitability and tend to provide low dividends, because the management believes that the funds are reinvested in the form of retained earnings to maintain the survival of the company. Thus companies that have high profits have not yet been ascertained to be able to pay a high portion of dividends also because of the investment opportunities needed for the company's growth. This is in line with the statement of Myers and Majluf (1984) that profitable companies have an incentive to pay relatively low dividends in order to have more internal funds for their investment projects.

The results of data analysis in this study states that IOS can weaken the relationship between profitability to dividend payments for investors. The results of this study illustrate that in conditions that are not ceteris paribus, good profitability does not guarantee that the dividend policy taken by the company will also be good. Investment opportunity set is considered as a condition that will weaken the relationship of profitability and dividend policy, because investment in projects with positive NPV will increase value and ensure the survival of the company in the future.

## 5. Conclusions and Suggestions

### 5.1 Conclusions

Based on the research data and the results of testing the statistical analysis that has been done, it can be concluded that:

- 1) Liquidity is one of the main factors affecting dividend policy. Liquidity proxy by the current ratio has a positive and significant effect on dividend policy which is proxy by the dividend payout ratio. A positive and significant relationship also means that if liquidity increases, the

amount of dividends distributed will also increase, and vice versa.

- 2) Liquidity is an illustration of the company's ability to fund operational activities and fulfillment of short-term debt, so that companies with good liquidity will also have a good dividend policy. Companies with liquidity problems certainly have risks with dividend payment policies, because dividend distribution in the company's internal conditions (liquidity) is not good will have an impact on operational activities and survival of the company. That is, the liquidity conditions will be a consideration for the company in determining its dividend policy.
- 3) Profitability is one of the main factors that influence dividend policy. Profitability proxy by return on equity has a positive and significant effect on dividend policy which is proxy by dividend payout ratio. A positive and significant relationship means that if profitability increases, the amount of dividends distributed will also increase, and vice versa.
- 4) The increase in profitability owned by the company will also have an impact on increasing the company's cash flow which is a source of funds for cash dividends to be distributed to investors. Dividend distribution when a company has a negative profitability value is a condition that is quite risky, because with negative profitability it means that the company's cash flow has a burden and dividend distribution will add to the burden. That is, with good profitability, the company will be able to improve its dividend policy for the better.
- 5) Investment opportunity set is applied as a moderating variable. The investment opportunity set proxy by the market to book value equity is able to moderate the effect of liquidity on dividend policy. The investment opportunity set has a negative and not significant effect on dividend policy, the interaction between investment opportunity and liquidity sets has a negative and significant effect on dividend policy, so the investment opportunity set can be said as a pure moderator.
- 6) Liquidity is one of the determinants of dividend policy to be taken by the company. The company must have sufficient cash funds to complete its main activities such as company operations and pay off short-term debt, before determining dividend policy. The higher the liquidity of a company, allowing the payment of dividends will be greater, but different things will happen if a company is faced with a situation of investment opportunities.
- 7) Investment is something that is needed to support the company's activities, especially investment in projects with positive NPV that will provide benefits for the company in the future. Investment certainly requires funds in its activities. That is, dividend policy for companies that choose to invest will decrease because the cash available for dividends is a residual from investment activities.
- 8) Investment opportunity set is applied as a moderating variable. Investment opportunity set proxy by market to book value equity is able to moderate the influence of profitability on dividend policy. The investment opportunity set has a negative and not significant effect on dividend policy, the interaction between investment opportunity and profitability sets has a negative and

significant effect on dividend policy, so that the investment opportunity set can be said as a pure moderator.

Profitability is one of the factors that determine dividend policy. Companies with high profitability cannot be sure to pay a high portion of dividends because of the investment opportunities needed for the company's growth. That is, the company does not distribute all profits owned as dividends because the company also requires internal funds (retained earnings) in sufficient amounts to finance the company's investment activities.

Companies that choose to carry out investment activities will have an impact on the decrease in the amount of dividends distributed, because the company's profitability will be more focused on investment activities. The company has the view that investment will provide a much greater value in the future when compared to dividends. Investment activities in projects with a positive NPV value are believed to reduce the nominal amount of dividends, but increase the value of the company.

## 5.2 Suggestions

Based on the results of the research and the conclusions that have been given, it was found several things that were the focus and were the basis for the submission of several suggestions. These suggestions include the following:

- 1) Liquidity has a positive and significant relationship to dividend policy, so liquidity conditions determine the dividend policy set by the company. Companies are advised to pay attention to the liquidity ratios they have, because this will have an impact on the survival of the company in meeting the company's operational costs, and fulfillment of short-term obligations, as well as investor valuation of the company's performance. Low and unstable liquidity will provide a signal for investors regarding the company's internal conditions that are not good, because investors judge that the company is experiencing liquidity problems which means that it is unlikely that the company will be able to distribute dividends to its investors.
- 2) Profitability has a positive and significant effect on dividend policy, so the condition of profitability determines the dividend policy set by the company. Companies are advised to pay more attention to their performance, especially the target profitability ratio that must be achieved by the company each period, because the profitability ratio is low or even negative value will provide difficulties for the company in dividend policy. Dividends distributed to investors come from profits earned by the company from its work, so the company may not distribute dividends if the profitability ratio is not as targeted. In addition, a low profitability ratio is also information for investors that the company's performance is not good and is unable to provide welfare to its shareholders.
- 3) Investment opportunity set can weaken the relationship of liquidity to dividend policy, so that investment decisions made by the company will have an impact on dividend policy. The company must be able to ensure that the investment made is an investment in a project

with a positive NPV and will increase the value of the company in the future, because investment will reduce cash and ultimately will have an impact on the amount of dividends distributed to investors today. Investors need to pay attention and consider investment decisions taken by the company, because investments made by the company will reduce the amount of dividends distributed to investors.

- 4) The investment opportunity set is able to weaken the relationship of profitability to dividend policy, meaning that the investment decisions made by the company have an impact on the dividend policy that will be determined. Investment activities will result in profits obtained by the company not being fully distributed to shareholders, but will be used as retained earnings to fund the company's investment activities. That is, the dividend that is distributed is the profit left over after investing. The decision to invest must be studied, considered and considered by the company, because it will have an impact on investor decisions. Companies must be able to convince, and investors must feel confident that the investment made is an investment that is beneficial for both parties, because investment is generally an activity / project that requires large amounts of funds.

For further research it is recommended that you consider other factors besides liquidity and profitability or use more than two independent variable. In addition, it is recommended to add a more relevant measurement indicator. The selection of research samples is also further pursued and extends the scope of research.

## References

- [1] Bank Indonesia, "Indonesia, Kurs dan Inflasi" Retrieved from Website Bank Indonesia: <http://www.bi.go.id> [Online]. [Accessed: 2018, November 26].
- [2] Gaver, Jeniffer J., & Kenneth M. Gaver., "Additional Evidence on the Association between the Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies," *Journal of Accounting & Economics*, 1993.
- [3] Gitman, J Lawrence., *Principles of Managerial Finance*, 13<sup>th</sup> Edition, Pearson Education, United Kingdom, 2012.
- [4] Hanafi, M. M., *Manajemen Keuangan Edisi 1*, BPFE, Yogyakarta, 2004.
- [5] Hartono, J., *Metode Penelitian Bisnis: Salah Kaprah dan Pengalaman-Pengalaman*, Edisi Pertama, BPFE, Yogyakarta, 2010.
- [6] Horne, James V., & Wachowicz., *Fundamental of Financial Management*, 13<sup>th</sup> Edition, Pearson Education, United Kingdom, 2009.
- [7] Husnan, S., *Manajemen Keuangan Teori dan Penerapan (Keputusan Jangka Panjang) Buku 1*, BPFE, Yogyakarta, 2010.
- [8] Indonesia Stock Exchange, "Annual Report" Retrieved from Website Indonesia Stock Exchange: <http://www.idx.co.id>[Online]. [Accessed: 2018, November 23].
- [9] Jensen, M. C., "Agency Costs of Free cash flow, corporate finance and takeovers," *Journal of American Economic Review*, 1986.
- [10] Jensen, M. C. & Meckling, William H., "Theory of The Firm: Managerial Behaviour, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, 1976.
- [11] Kementerian Perindustrian "Making Indonesia 4.0." Retrieved from Website Kementerian Perindustrian: <http://www.kemenperin.go.id> [Online]. [Accessed: 2018, December 03].
- [12] Keown, A. J., Martin, J. D., Petty, J. W., & Scott, D. F., *Financial Management: Principles and Applications*, 12<sup>th</sup> Edition, Pearson Education, United Kingdom, 2014.
- [13] Mulyono, B., "Pengaruh Debt to Equity Ratio, Insider Ownership, Size, dan Investment Opportunity Set terhadap Kebijakan Dividen (Studi Pada Industri manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode Tahun 2005-2007)," *Doctoral Dissertation*, Universitas Diponegoro, 2009.
- [14] Myers, S. C. & Majluf N. S., "Corporate Financing and Investment Decisions When Firm Have Information That Investors Do Not Have," *Journal of Financial Economic*, 1984.
- [15] Putra, I Nyoman Nugraha A., "Analisis Biaya Keagenan terhadap Kebijakan Dividen Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Jakarta," *Journal of Riset Akuntansi Aksioma*, 2006.
- [16] Riyanto, B., *Dasar-dasar Pembelanjaan Perusahaan Edisi Keempat*, BPFE, Yogyakarta, 2011.
- [17] Ross, S. A., Westerfield, R. W., & Jordan, B. D., *Fundamentals of Corporate Finance*. New York: Mc Graw-Hill, New York, 2000.
- [18] Sadalia, Isfenti. & Syafitri., "Pengaruh Profitability dan Investment Opportunity Set terhadap Dividen Tunai Pada Perusahaan Terbuka Di Bursa Efek Indonesia.," *Journal of Manajemen Bisnis*, 2008.
- [19] Sartono, A., *Manajemen Keuangan Teori dan Aplikasi*, BPFE, Yogyakarta, 2010.
- [20] Stice, E. K., Stice, J. D., & Skousen, K. F., *Intermediate Accounting 15th Edition*. Ohio: South Western Publishing Co., Ohio, 2005.
- [21] Suharli, Michell., "Pengaruh Profitability dan Investment Opportunity Set terhadap Kebijakan Dividen Tunai dengan Likuiditas Sebagai Variabel Penguat (Studi pada Perusahaan yang Terdaftar di BEI Periode 2002- 2003)," *Journal of Akuntansi dan Keuangan*, 2007.

## Author Profile

**Erma Muqita Aldini** was born on February 3<sup>rd</sup>, 1995. Received the bachelor's degree (S.E.) from Mataram University in 2017. She now as a student Master of Management, The Faculty of Economics and Business, Mataram University.

**Budi Santoso** was born on July 12<sup>th</sup>, 1960. Received the bachelor's degree (Drs.) from Mataram University in 1985, the master's degree (M.Com) from University of South Australia, and doctoral degree (Ph.D.) from La Trobe University. He now as a lecturer at Mataram University.



**I Nyoman Nugraha Ardana Putra** was born on March 18<sup>th</sup>, 1977. Received the bachelor's degree (S.E.) from Mataram University in 2000, the master's degree (M.M.) and doctoral degree (Dr.) from Brawijaya University. He now as a lecturer at Mataram University.