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### ANALYSIS OF FACTORS AFFECTING CASH DIVIDEND WITH LIQUIDITY AS A MODERATING VARIABLE

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#### *Abstract*

*Dividend distribution is what investors expect. Therefore investors must be careful in choosing which company to invest in to get cash dividends as expected. This study aims to determine the impact of managerial ownership, profitability, investment opportunity sets on cash dividends with liquidity as a moderating variable. So that if this research variable shows a significant influence, it will help investors in investing decisions. The data in this study were obtained from the Indonesia Stock Exchange website. This type of research is qualitative research. The sampling technique in this study was purposive sampling with several criteria for food and beverage sub-sector companies for four consecutive years resulting in 18 companies. The analysis model used is moderated regression analysis (MRA). The results of this study indicate that managerial ownership and investment opportunity sets do not affect cash dividends. In contrast, profitability does affect cash dividends, and liquidity does not moderate managerial ownership, profitability and investment opportunity sets.*

**Keywords:** managerial ownership, profitability, IOS, dividend

#### INTRODUCTION

Dividends are the distribution of profit to shareholders evenly. In principle, it is paid in money. Dividends are part of the profits received by shareholders from a company. The company distributes dividends because it is a form of reciprocity or a benefit for shareholders who have paid their capital to the company. By distributing dividends, the company is considered to have good liquidity. If the company's profits are not distributed to shareholders, the profits will be reinvested in the company, commonly known as retained earnings. Shareholders hope to receive dividends from the ownership of capital invested in the company. So that high dividend are expected by shareholders, but high dividends will affect the low retained earnings of the company (Mustafa, 2017)

Dividend policy often creates conflicts of interest between company management and shareholders. Dividend policy is a difficult decision for the management of the company because dividend distribution, on the one hand, will fulfill investors' expectations of getting a return as a return on the investment they make. On the other hand, it is hoped that dividend distribution will not threaten the company's survival. Company management must determine an optimal dividend policy that can be a fair policy between shareholders and dividends and the company with the company's growth. (Dewi & Sedana, 2018)

There is research conducted by Sumanti & Mangantar, (2015) and Indriani et al., (2016) which states that managerial ownership affects dividend policy. According to Indriani et al., (2016), managerial ownership can be used to predict a company's dividend policy. Sumanti & Mangantar, (2015) state that companies with managerial ownership or companies in which the commissioners and directors who play an active role in decision making are equal with other shareholders who tend to pay high dividends. However, research conducted by Rais & Santoso, (2017) Meilita & Rokhmawati,

(2017), and Febrianti & Zulvia, (2020) has different results. Managerial ownership does not affect dividend policy.

Profitability is a major factor for companies in distributing dividends to shareholders. So that profitability is the main factor in determining the policy to distribute dividends or not to shareholders. Profitability is the company's ability to earn a profit, which influences dividend policy. If the company has a high level of profitability, the profits it will get will also be high, and in the end, the profits available for distribution to shareholders will be even greater. The greater the profit available to shareholders, the greater the dividend payment to shareholders or the allocation for retained earnings. (Rais & Santoso, 2017)

Research by Dewi & Sedana, (2018), and Pradnyavita & Suryanawa, (2020) stated that profitability has a positive effect on dividend policy, which means that the higher the company's profitability, the higher the probability of dividends being distributed to shareholders. However, the results of this study contradict research conducted by Sumanti & Mangantar, (2015), Rais & Santoso, (2017), which state that profitability does not affect dividend policy. According to Sumanti & Mangantar, (2015), this happened due to the low level of profitability of the company still paying dividends to investors to maintain the company's reputation in the eyes of investors.

Myers, (1977) describes a company as a combination of real assets and investment options in the future. Future investment options have become known as IOS or investment opportunity sets. IOS as an investment option in the future can be demonstrated by the company's higher ability to take advantage of opportunities. Research conducted by Sudaryanti, (2010), and research Marpaung & Hadianto, (2009) stated that it is per the research of Sandy, Sandy et al., (2003), namely the Investment Opportunity Set (IOS) has a positive effect on dividend policy.

Liquidity as a moderating variable in this study is proxied by the current ratio (CR). Liquidity can be defined as the ability of a company to meet its financial obligations in the short term or to be paid immediately. From this definition, it can be said that a liquid company is a healthy company, financially sound because it can pay all costs that must be incurred in the short term. The selection of liquidity as a reinforcing variable is because in companies with high profitability and better liquidity, the greater the number of dividends distributed to increase investor confidence in the company and reduce investor uncertainty in investing their funds into the company. In companies that invest more funds, it will cause the number of cash dividends to be paid to decrease, but good liquidity can weaken this hypothesis because, at that time, the company postpones its short-term debt payments. Only companies that have good liquidity will distribute their profits to shareholders in cash. On the other hand, the company's management will use the existing liquidity potential to pay off short-term obligations or fund the company's operations (Suharli, 2007).

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### **Agency Theory**

Agency Theory describes the separation between the management function (by managers) and the company's ownership function (by shareholders). This agency relationship arises when one or more people employ another person to provide services and then delegate decision-making authority to that agency. The goals of managers and shareholders are the same which increasing company value by increasing shareholder wealth. However, managers often do not always act in the interests of shareholders or act against shareholders' wishes, resulting in conflicts between company managers and shareholders (Jensen & Meckling, 1976).

### **Managerial ownership**

Managerial ownership is a condition in which the manager takes part in the company's capital structure or in other words the manager has a dual role as a manager as well as a shareholder in the company. In the financial statements, this situation is presented in the percentage of ownership by the manager (Sugiarto, 2011). Managerial ownership is part of the ownership structure, which is the ownership of company shares owned by management who actively participates in decision making, for example, directors and commissioners (Hardiningsih, 2009).

**Profitability**

Profitability ratio is a ratio that measures the ability of company executives to create a level of profit both in the form of company profits and economic value on sales, company net assets and own capital. This ratio is preferred by shareholders and company management as an investment decision tool, whether this business investment will be developed, maintained and so on (Raharjaputra, 2009). Same as Fahmi, (2012) which defines that this ratio measures the effectiveness of the overall management, which is aimed at the size of the level of profits obtained concerning sales and investment. The better the profitability ratio, the better it describes the company's high profitability.

**Investment Opportunity Set (IOS)**

Myers, (1977) describes a company as a combination of real assets (assets in place) and investment options in the future. Future investment options have become known as IOS or investment opportunity sets. IOS as an investment option in the future can be demonstrated by the company's higher ability to take advantage of opportunities. According to Hartono, (2017) the Investment Opportunity Set (IOS) describes the extent of investment opportunities or opportunities for a company. IOS is a large company value depending on expenses that regulate management in the future, which at this time are investment options that are expected to produce greater returns.

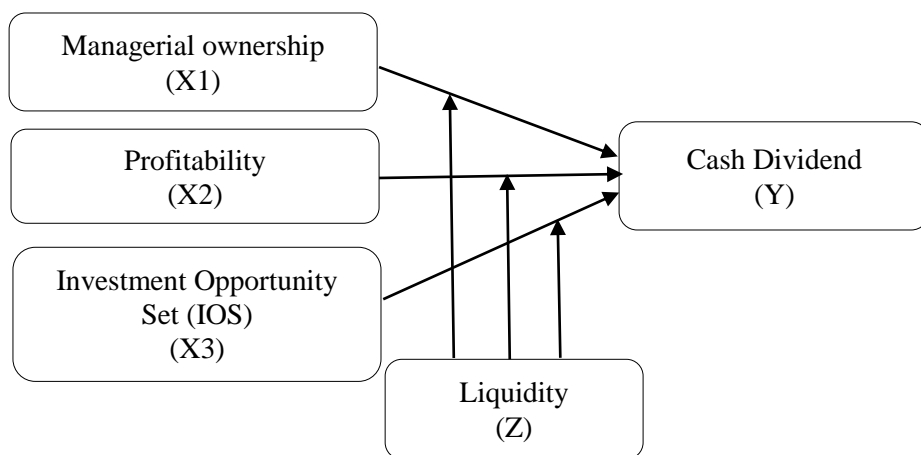
**Liquidity**

Liquidity can be defined as the ability of a company to meet its financial obligations in the short term Munawir, (2014) According to (Suharli, 2007) liquidity is defined as a company's ability to pay off all its short-term obligations and fund its business operations. From the definition above, it is said that a liquid company is a healthy company, financially sound because it can pay the costs that must be incurred in the short term.

**Cash Dividend**

Dividends are generally distributed in cash. The general expectation of every shareholder who receives dividends is that the company has been operating successfully. Investors can receive a share of the profit on the ownership of shares that the investor has invested. Dividend payments in cash to shareholders. The cash dividend payment is determined after going through a lot of considerations from the company management through the general meeting of shareholders (Kieso, 2008)

**Conceptual Framework**



**Figure 1**  
Conceptual Framework

**The Effect of Managerial Ownership on Cash Dividends**

Managerial ownership is the number of share ownership owned by managers involved in making company decisions. With the ownership of shares on the part of management, this will harmonize the agency conflicts between shareholders and company managers. Based on agency theory,

managerial ownership is assumed to reduce agency problems that arise in a company. The higher the managerial ownership, the less conflict between shareholders and managers. This is because managers and shareholders will expect or have the same goals as shareholders. So managerial ownership influences dividend policy (Meilita & Rokhmawati, 2017). Then research conducted by Sumanti & Mangantar, (2015), Indriani et al., (2016) also stated that managerial ownership has a positive effect on dividend policy.

**H1: Managerial ownership has a significant effect on cash dividends.**

### **Effect of Profitability on Cash Dividends**

Profitability is the ratio used in analyzing the company's performance. Profitability ratios are used to assess the goals and targets that the company has. The higher the net income and equity in the company, the more complete the presentation, reporting, and disclosure of information in the company. High profitability indicates that the company's performance is good and the targets achieved have been successful. The high profitability of the company shows the company's ability to fulfill its obligations. For investors, profitability is an essential factor because, through profitability, investors can assess the company's performance and ability and effectiveness in generating profits. With the company's ability to generate profits, the company will have a high percentage of distributing its dividends. This statement is per the research conducted (Pradnyavita & Suryanawa, 2020). Research conducted by (Karina & Darsono, (2014) shows that profitability has a significant effect. This explains that the greater the company's net profit, the greater the dividends distributed to shareholders. A positive effect of profitability on dividends indicates that companies with a high ROA will pay dividends with a higher proportion. This can be because dividends are a form of distribution of profits that the company gets from the company's operations to shareholders. On the one hand, the large profitability value by the company can be used as a source of corporate financing, debt payments, and potentially as a source of dividends by the company.

**H2: Profitability has a significant effect on cash dividends.**

### **Effect of Investment Opportunity Set (IOS) on Cash Dividend Policy**

According to Hartono, (2017), the Investment Opportunity Set (IOS) describes the extent of investment opportunities or opportunities for a company. IOS as an investment option in the future can be demonstrated by the company's higher ability to take advantage of opportunities. The ratio used to measure the investment opportunity set in this study is the market to book value of assets (MBVA) ratio. Companies with a high IOS level have a smaller dividend payout policy than companies with a low IOS level. Determination of funding and dividend policies in companies is related to the company's free cash flow problem. Companies with low growth will try to attract funds from outside parties to fund their investments at the expense of most of their profits in the form of dividends or interest. Therefore, the company will pay high dividends to shareholders to attract investors (Inneke & Supatmi, 2008). The results of Chintya et al., (2018) state that investment opportunities have a negative effect on dividend policy. From the results of these studies, it can be said that companies prioritize investing rather than paying dividends. The greater the investment opportunity, the fewer dividends that can be distributed because it is better if the funds are invested in investments that generate a positive NPV.

**H3: The investment opportunity set has a significant effect on cash dividends.**

### **The Effect of Managerial Ownership on Cash Dividends with Liquidity as the moderating Variable**

The manager's position as an investor prefers a bigger income (a bird in the hand theory). Large dividends support sufficient liquidity support to be given to shareholders (Putri & Irawati, 2019). Per the study of Pujiati, (2015) which states, "Liquidity is the ability to meet short-term financial obligations that must be fulfilled" and explains that high liquidity will affect the effect of managerial ownership on cash dividends.

**H4: Managerial ownership has a significant effect on cash dividends with liquidity as the moderating variable.**

### **Effect of Profitability on Cash Dividends with Liquidity as a Moderating Variable**

Companies that have better liquidity will be able to pay more dividends in companies that book higher profits (high profitability), plus better liquidity, the greater the number of dividends distributed. This is supported by research by Suharli, (2007), which shows that profitability has a significant positive effect on cash dividend policy and is strengthened by company liquidity.

**H5: Profitability has a significant effect on cash dividends with liquidity as the moderating variable.**

### **The Effect of Investment Opportunity Set on Cash Dividend Policy with Liquidity as the Moderating Variable**

Companies that invest more funds will cause the number of cash dividends to be paid to decrease. Still, good liquidity can weaken this hypothesis because, at that time, the company can delay the payment of its short-term debt. Liquidity is defined as its ability to pay off all of its short-term obligations and fund its business operations. Only companies that have good liquidity will distribute their profits to shareholders in cash. On the other hand, the company's management will use the available liquidity potential to pay off short-term obligations or fund the company's operations. This is supported by Suharli, (2007) research, which shows that the investment opportunity set has a negative effect on the cash dividend policy with liquidity as the reinforcing variable.

**H6: The investment opportunity set has a significant effect on cash dividends with liquidity as the moderating variable**

## **RESEARCH METHOD**

### **Types of Research**

This research is included in the descriptive research of causality verification. Descriptive research is research conducted to identify and explain the characteristics of the variables under study in a situation. The purpose of descriptive research is to provide researchers with a history or to describe aspects relevant to the phenomenon of concern from a person, organization, industrial orientation, or others. (Sekaran & Bougie, 2017).

### **Population and Sample**

The population in this study were companies in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the period 2016-2019. In this study, the researcher did not examine 2020 because many companies have not published financial reports. Maybe this is due to the covid-19 pandemic, so that companies are late in issuing financial reports. Therefore, the researcher limited the research to 2019. The author researches food and beverage companies because from the last few years, from 2015 to 2020, the food and beverage industry has increased by 3% per year and is the most popular and promising (Talisa, 2020). The population in this study was 28 companies that were consistently listed on the Indonesian stock exchange from 2016-2019. The sampling method was purposive sampling. The sampling criteria, namely, the food and beverage sub-sector companies listed in IDX 2016-2019, consistently issue financial reports that have been audited and have the completeness of the variables studied.

### **Data Collection Method**

The data collection method used in this research is the annual report on the food and beverage sub-sector obtained from the Indonesian stock exchange for the 2016-2019 period and previous research and various scientific literature and references such as related books that are relevant to the topics discussed.

### **Types and Data Source**

The data used in this research is quantitative, a form of numbers that can be calculated and analyzed systematically in the company's financial statements for 2016-2019.

### **Operational Research Variables**

#### **Managerial ownership (X1)**

Managerial ownership is a condition in which the manager takes part in the company's capital structure. In other words, the manager has a dual role as a manager and a shareholder in the company.

In the financial statements, this situation presents the percentage of ownership by the manager. (Sugiarto, 2011)

$$\text{Managerial Ownership} = \frac{\text{The total of shares owned by managerial}}{\text{The total of outstanding shares}}$$

### **Profitability (X2)**

A profitability ratio is a ratio that measures the effectiveness of management as a whole which is aimed at the size of the level of profits obtained in relation to sales and investment. The better the profitability ratio, the better it describes the company's high profitability. (Fahmi, 2012)

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit}}{\text{Total Equity}}$$

### **Investment Opportunity Set (X3)**

Investment Opportunity Set (IOS) describes the extent of investment opportunities for a company. IOS is a company value whose amount depends on expenses determined by management in the future, which are investment choices that are expected to produce a greater return. (Hartono, 2017). This ratio indicates the presence of additional company capital flows based on the book value of fixed assets.

$$\text{CAP / BVA} = \frac{\text{Fixed asset book value}(t) - \text{Fixed asset book value}(t - 1)}{\text{Total asset}(t)}$$

### **Cash Dividend (Y)**

The dependent variable used in this study is cash dividends. Dividend policy measurement in this study is carried out using the dividend payout ratio formula. This ratio shows the percentage of the company's profit paid to the company's common stockholders in cash dividends. (Indriani et al., 2016)

$$\text{Dividend Payout Ratio} = \frac{\text{Dividends per share}}{\text{Net income per share}}$$

### **Liquidity (Z)**

The moderating variable used in this study is liquidity. liquidity is defined as the company's ability to pay off all of its short-term obligations and fund its business operations. (Suharli, 2007). The reason for using the current ratio as an indicator in a moderate variable, according to Suharli, (2007) is that companies that have better liquidity will be able to pay more dividends.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### **Data Analysis Technique**

This research uses data analysis techniques with descriptive statistics, classical assumption test, Moderated Regression Analysis and multiple linear regression.

### **Descriptive Statistics**

This descriptive statistical study is used to determine and describe the number of samples, minimum, maximum, average (mean), standard deviation. Descriptive statistics are statistics for analyzing data by explaining or describing the data that has been collected without intending to make conclusions (Sugiyono, 2013).

### **Classic Assumption Test**

#### **Data Normality Test**

The normality test aims to test whether in the regression model, confounding or residual variables have a normal distribution. The normality test used in this study is Kolmogorov Smirnov. If

the calculation is obtained a significant value of more than 0.05, the data is normally distributed on the contrary, if the significant value is less than 0.05, the data is not normally distributed. (Ghozali, 2018)

### Multicollinearity Test

If there is no correlation between the independent variables, it shows a good regression model Priyatno, (2013) Variance Inflation Factor and Tolerance can be used to find out the multicollinearity test. Research shows that multicollinearity does not occur if  $VIF < 10$  and for  $Tolerance > 0.1$  (Priyatno, 2013)

### Autocorrelation Test

The autocorrelation test is used to test whether in the linear regression model there is a correlation between confounding error in period t and confounding error in period t-1 (previous) (Ghozali, 2018). Autocorrelation arises because successive observations over time are related to one another. The test method uses the Ljung Box statistical test with the criteria for the presence or absence of autocorrelation if the significant amount of lag is more than two, it is autocorrelated. If the significant lag is two or less than two, it is said that there is no autocorrelation. (Ghozali, 2018)

### Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is an inequality of the variance of the residual value from one observation to another in the regression model. Heteroscedasticity testing is carried out using an informal method, namely using a scatterplot chart. (Gujarati & Porter, 2012)

### Multiple Linear Regression Test Regression Model

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Y	= Cash Dividends
X1	= Managerial Ownership
X2	= Profitability
X3	= Investment Opportunities Set
$\alpha$	= Constanta
$\beta_1 \beta_2 \beta_3$	= Regression Coefficient
$\varepsilon$	= Confounding Variables

### Moderated Regression Analysis (MRA)

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + Z_4 + \beta_4 X_1 * Z_4 + \beta_5 X_2 * Z_4 + \beta_6 X_3 * Z_4 + \varepsilon$$

Y	= Cash Dividends
A	= Constanta
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$	= Regression Coefficient
X1	= Managerial Ownership
X2	= Profitability
X3	= Investment Opportunities Set
Z4	= likuiditas
X1*Z4	= The interaction between managerial ownership and liquidity
X3*Z4	= The interaction between the set of investment opportunities and liquidity
E	= Confounding Variables

### Simultaneous Testing (F-Test)

The F test is carried out whether it influences simultaneously or not by testing the independent variable on the dependent. The model is feasible or can test the independent variable on the dependent variable if  $sig < 0.05$  or  $F\text{-count} > F\text{-table}$  and vice versa.

**RESULT AND DISCUSSION**

**Classic Assumption Test  
Normality Test**

**Table 1  
One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		72
Normal Parameters <sup>a, b</sup>	Mean	.0000000
	Std. Deviation	20.46868926
Most Extreme Differences	Absolute	.056
	Positive	.050
	Negative	-.056
Test Statistic		.056
Asymp. Sig. (2-tailed)		.200 <sup>c, d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

According to the table above, we can see a statistical test of 0.056 with a significance value (Asymp. Sig. (2-tailed)) of 0.200. Because the probability value in the Kolmogorov-Smirnov test is greater than the 5% error rate (0.05), it is concluded that the regression model has met the normality assumption.

**Multicollinearity Test**

**Table 2  
Multicollinearity Test  
Coefficients<sup>a</sup>**

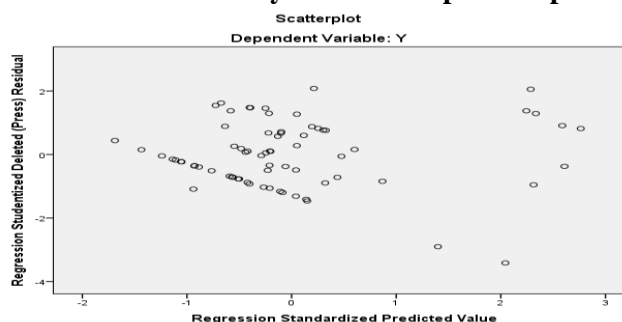
Model		Collinearity Statistics	
		Tolerance	VIF
1	X1	.285	3.505
	X2	.063	15.954
	X3	.070	14.276
	Z	.422	2.368
	X1*Z	.286	3.493
	X2*Z	.048	20.797
	X3*Z	.057	17.655

a. Dependent Variable: Y

According to table 4.7 above, it can be seen that the Tolerance value of several independent variables is < 0.1, so that the VIF (Variance Inflation Factor) value of several independent variables is > 10. Thus it can be concluded that there is multicollinearity among independent variables. Heteroscedasticity problems often occur in moderating regression analysis because of the interaction of the independent variable with the moderating variable results from multiplication.

**Heteroscedasticity Test**

**Tabel 3  
Heteroscedasticity Test Scatterplot Graph**





The scatterplot graph shows that the dots do not form a certain pattern and spread randomly and evenly both above and below the number 0 on the Y-axis. Thus it can be concluded that there is no heteroscedasticity symptom in the regression model.

**Autocorrelation Test**

**Tabel 4**  
**Autocorrelation Assumption Test**

Model Summary <sup>b</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.715 <sup>a</sup>	.512	.459	21.55903	2.085	

a. Predictors: (Constant), X3\*Z, X1, Z, X2, X1\*Z, X3, X2\*Z  
b. Dependent Variable: Y

According to the table 4 it can be seen that the Durbin-Watson (DW) statistical value of the regression results is 2.085, then from table d Durbin-Watson for the number of independent variables = 7 and the number of observations n = 72, the lower limit of the table value (dL) = 1.401 and the upper limit is obtained. (dU) = 1,837. Because the Durbin-Watson value of the regression results (2.085) is between dU (1.837) and 4-dU (2.163), which is in an area where there is no autocorrelation, it can be concluded that there are no autocorrelation symptoms in the regression model.

**Multiple Linear Regression Analysis**

**Tabel 5**  
**Estimated Results of Multiple Linear Regression Analysis**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.156	6.650		.174	.863
	X1	-.333	.547	-.099	-.608	.545
	X2	.883	.314	.981	2.812	.007
	X3	.604	.773	.258	.782	.437
	Z	.051	.021	.324	2.409	.019
	X1*Z	-1.654	4.957	-.054	-.334	.740
	X2*Z	13.765	13.610	.403	1.011	.316
	X3*Z	-2.322	11.194	-.076	-.207	.836

a. Dependent Variable: Y

Based on the unstandardized coefficients presented in Table 5, the multiple linear regression equation can be formed as follows.

$$Y = 1,156 - 0,333 X1 + 0,883 X2 + 0,604 X3 + 0,051 Z - 1,654 X1*Z + 13,765 X2*Z - 2,322 X3*Z$$

Through the results of the regression equation, the coefficient of each independent variable can be interpreted as follows:

1. A constant of 1.156% indicates the average value of the dividend payout ratio if managerial ownership, profitability, investment opportunity set, and liquidity are equal to zero.
2. Managerial ownership (X1) has a negative coefficient of 0.333, indicating that every 1% increase in managerial ownership is predicted to decrease the dividend payout ratio by 0.333%. This means that companies with greater managerial ownership tend to pay lower cash dividends.
3. Profitability (X2) has a positive coefficient of 0.883, indicating that every 1% increase in return on equity is predicted to increase the dividend payout ratio by 0.883%. This means that companies with a greater return on equity tend to pay higher cash dividends.
4. The investment opportunity set (X3) has a positive coefficient of 0.604, indicating that every 1% increase in capital expenditure to book value assets is predicted to increase the dividend payout ratio by 0.604%. This means that companies with greater capital expenditure to book value assets tend to pay higher cash dividends.

5. Liquidity (Z) has a positive coefficient of 0.051, indicating that every 1% increase in the current ratio is predicted to increase the dividend payout ratio by 0.051%. This means that companies with higher liquidity tend to pay higher cash dividends.
6. Managerial ownership moderated by liquidity (X1 \* Z) has a negative coefficient of 1.654. This means that the interaction between managerial ownership and liquidity tends to reduce cash dividends.
7. Profitability, moderated by liquidity (X2 \* Z), has a positive coefficient of 13.765. This means that the interaction between profitability and liquidity tends to increase cash dividends.
8. The liquidity-moderated investment opportunity set (X3 \* Z) has a negative coefficient of 2.322. This means that the interaction between sets of investment opportunities and liquidity tends to reduce cash dividends.

**Coefficient of Determination**

**Table 6**  
**Simultaneous Determination Coefficient**

Model Summary <sup>b</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.715 <sup>a</sup>	.512	.459	21.55903	2.085	

a. Predictors: (Constant), X3\*Z, X1, Z, X2, X1\*Z, X3, X2\*Z  
b. Dependent Variable: Y

According to table 10 above, it can be seen that the coefficient of determination (R Square) of 0.512 shows that managerial ownership, profitability, and investment opportunity sets which are moderated by liquidity, simultaneously have an effect of 51.2% on cash dividends in listed food and beverage sub-sector companies. On the Indonesia Stock Exchange. In contrast, the remaining 48.8% influence other factors outside of managerial ownership, profitability, and investment opportunity sets.

**Simultaneous Testing (F-Test)**

**Table 7**  
**Anova table to test the simultaneous effect**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31198.178	7	4456.883	9.589	.000 <sup>b</sup>
	Residual	29746.674	64	464.792		
	Total	60944.852	71			

a. Dependent Variable: Y  
b. Predictors: (Constant), X3\*Z, X1, Z, X2, X1\*Z, X3, X2\*Z

According to table 7 it can be seen that the value seen is the  $F_{count}$  value of 9.589 with a significance value close to zero. Then the value of  $F_{table}$  at a significance level of 5% ( $\alpha = 0.05$ ) and degrees of freedom 7 and 64 amounted to 2.156. Because  $F_{count}$  (9,589) is greater than  $F_{table}$  (2.156) and the significance value is less than 0.05, then at the 5% error level, it was decided to reject  $H_0$  so that  $H_a$  was accepted. Thus, it can be concluded that managerial ownership, profitability, and investment opportunity set moderated by liquidity simultaneously affect cash dividends in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

**H1 = The Effect of Managerial Ownership on Cash Dividends**

**Table 8**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	$H_a$
<b>The effect of managerial ownership</b>	-0,099	-0,608	0,545	1,998	rejected

Based on the table above, the result shows that the  $t_{count}$  value of the influence of managerial ownership on cash dividends is -0.608 with a significance value of 0.545. Because  $t_{count}$  is between negative and positive  $t_{table}$  (-1.998 -0.608 1.998), and the significance value is greater than 0.05, then at

an error rate of 5%, The Result decided to accept  $H_0$  and reject  $H_a$ . Thus, The Result can conclude that managerial ownership does not affect cash dividends in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

The research conducted by Meilita & Rokhmawati, (2017), Sumanti & Mangantar, (2015), Indriani et al., (2016) are shows that managerial ownership positively affects dividend policy. Still, the research results show different results, namely managerial ownership does not affect dividend policy. This indicates that managers who own shares in the companies they lead tend to have dual roles, namely managers and investors. Both roles bring their respective advantages to managers. The role as an investor by getting dividends and a role as a manager with agency costs from the owner of the company will increase the income for the manager. So that any policy taken by the company will not affect the manager's attitude towards the Dividend Policy.

**H2 = The Effect of Profitability on Cash Dividends**

**Table 9**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	$H_a$
The effect of profitability	0,981	2,812	0,007	1,998	accepted

Based on the table above, we can see that the  $t_{count}$  value of profitability on cash dividends is 2.812 with a significance value of 0.007. Because  $t_{count}$  is greater than positive  $t_{table}$  ( $2,812 > 1,998$ ), and the significance value is less than 0.05, then at an error rate of 5% it was decided to reject  $H_0$  and accept  $H_a$ . Thus it can be concluded that profitability has a significant effect on cash dividends.

The results of this study are the same as research conducted by Mahmudah & Ratnawati, (2020) which states that if the company's level of profitability is high, the company's profits will be distributed more in the form of dividends to shareholders. Following the signalling theory, it states that the management will pay dividends to signal its success in generating profits. Because the company's ability to pay dividends is a function of profits, good profitability can help companies pay dividends.

**H3 = Effect of Investment Opportunity Set (IOS) on Cash Dividend Policy**

**Table 10**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	$H_a$
The effect of investment opportunity set	0,258	0,782	0,437	1,998	rejected

Based on table above, we can see that the  $t_{count}$  value of the effect of the investment opportunity set on cash dividends is 0.782 with a significance value of 0.437. Because  $t_{count}$  is between negative and positive  $t_{table}$  ( $-1,998 < 0,782 < 1,998$ ), and the significance value is greater than 0.05, then at an error rate of 5% it was decided to accept  $H_0$  and reject  $H_a$ . Thus it can be concluded that the investment opportunity set has no effect on cash dividends. which means the size of the value of the investment opportunity does not affect the high and low value of cash dividends investors will obtain. The results of this study are in line with research conducted by Sudarmono & Khairunnisa, (2020), showing that the investment opportunity variable has a negative effect on dividend policy.

**H4 = The Effect of Managerial Ownership on Cash Dividends with Liquidity as the moderating Variable**

**Table 11**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	$H_a$
The effect of managerial ownership which is moderated by liquidity	-0,054	-0,334	0,740	1,998	rejected

Based on the table above, we can see that the  $t_{count}$  value of the influence of managerial ownership moderated by liquidity on cash dividends is -0.334 with a significance value of 0.740.

Because  $t_{count}$  is between negative and positive  $t_{table}$  (-1.998 -0.334 1.998), and the significance value is greater than 0.05, then at an error rate of 5% it was decided to accept  $H_o$  and reject  $H_a$ . Thus, it can be concluded that managerial ownership, which is moderated by liquidity, has no effect on cash dividends in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

The research conducted by Pujiati, (2015) shows that liquidity affects managerial ownership of cash dividend policy. Still, the results of the study show that liquidity moderated managerial ownership does not affect cash dividend policy. This is because the position of managers as investors prefers large dividend income (a bird in the hand theory). Large dividends require adequate liquidity support to be distributed to shareholders. But the role of managers also requires agency costs that can affect the company's liquidity. Managers will not be affected by the dividend policy taken by the company even though the company is liquid.

**H5 = Effect of Profitability on Cash Dividends with Liquidity as a Moderating Variable**

**Table 12**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	Ha
The effect of profitability is moderated by liquidity	0,403	1,011	0,316	1,998	rejected

Based on the table above, We can see that the  $t_{count}$  value of the effect of profitability moderated by liquidity on cash dividends is 1.011 with a significance value of 0.316. Because  $t_{count}$  is between negative and positive  $t_{table}$  (-1,998 1,011 1,998), and the significance value is more significant than 0.05, then at the 5% decision level to accept  $H_o$  and reject  $H_a$ . Thus it can be said that liquidity moderated profitability does not affect cash dividends. This is because companies that have good liquidity will distribute their profits to shareholders in cash. Still, the company's management will use the existing liquidity potential to pay off short-term obligations or fund the company's operations. This study is not consistent with the research conducted by Suharli, (2007), which states that profitability affects the cash dividend policy of companies with liquidity as a moderating variable.

**H6 = The Effect of Investment Opportunity Set on Cash Dividend Policy with Liquidity as the Moderating Variable**

**Table 13**

Models	Standardized Coefficient	$t_{count}$	Sig.	$t_{table}$ (db:64)	Ha
The effect of the liquidity-moderated investment opportunities set	-0,076	-0,207	0,836	1,998	rejected

Based on the table above, we can see that the  $t_{count}$  value of the effect of the liquidity-moderated investment opportunity set on cash dividends is -0.207 with a significance value of 0.836. Because  $t_{count}$  is between negative and positive  $t_{table}$  (-1.998 -0.207 1.998), and the significance value is more significant than 0.05, then at an error rate of 5%, it was decided to accept  $H_o$  and reject  $H_a$ . Thus, it can be concluded that the liquidity-moderated investment opportunity set does not affect cash dividends.

If the company is in very good shape, management will prefer new investments than give high dividends. Otherwise, the funds that will be used for shareholders as cash dividends will be used to purchase profitable investments. Companies with high IOS levels have a big influence on dividend policy. Companies with high iOS are considered to be good companies because they make huge profits. Large profits will be converted into capital which is used to increase company sales and company operations so that the distribution of dividends or profit-sharing received by shareholders will be small. The results of this study are per research conducted by Suharli, (2007) which shows that the investment opportunity set has no effect on cash dividend policy with liquidity as a moderating variable.

**CONCLUSION**

1. Managerial ownership has a negative coefficient, indicating that companies with greater managerial ownership tend to pay lower cash dividends. The test results show that managerial ownership does not affect cash dividends.

2. Profitability has a positive coefficient, indicating that companies with a greater return on equity tend to pay higher cash dividends. The test results show that profitability affects cash dividends.
3. The investment opportunity set has a positive coefficient, showing that companies with a greater capital expenditure to book value assets tend to pay higher cash dividends. The test results show that the investment opportunity set does not affect cash dividends.
4. Managerial ownership, which is moderated by liquidity, has a negative coefficient, indicating that the interaction of managerial ownership with liquidity tends to decrease cash dividends. The test results show that managerial ownership, moderated by liquidity, does not affect cash dividends.
5. Profitability, moderated by liquidity, has a positive coefficient, indicating that the interaction between profitability and liquidity tends to increase cash dividends. The test results show that profitability, moderated by liquidity, does not affect cash dividends.
6. The liquidity-moderated investment opportunity set has a negative coefficient, indicating that the interaction of the investment opportunity set with liquidity tends to decrease cash dividends. The test results show that the investment opportunity set does not affect cash dividends.

## SUGGESTIONS

### - Practical Suggestion

For companies listed on the Indonesian stock exchange, they must maintain the company's profitability and liquidity level because these variables have a positive influence on the distribution of cash dividends to investors. The better the level of liquidity and profitability of this company shows the company is in good condition. Hence, the greater the opportunity for the company to distribute dividends to investors because the distribution of cash dividends is something that most investors want. So that if investors get maximum results from investing, it will increase investor confidence to continue and increase the value of their investment in the company. This is good for the company to get funds to run its business and expand its business.

### - Theoretical Suggestion

For future researchers, it is hoped that they can determine samples from different sectors to strengthen the results of previous studies, which were expected to be obtained determining purposive samplings in more detail, such as determining the minimum percentage of Managerial Ownership to avoid outliers and replacing or adding variables independent with other variables such as Growth, Size, Institutional Ownership, Debt Policy, Effective Tax Rate and Using others moderating variables other than liquidity such as size and capital structure.

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