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THE EFFECT OF INVESTMENT OPPORTUNITY SET ON DIVIDEND POLICY WITH LIQUIDITY AS MODERATING VARIABLE

(Study of Trading, Service and Investment Sector Companies Listed on the Indonesia Stock Exchange for the 2014-2019 Period)

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Abstract

This study aims to determine the effect of investment opportunity set proxied by MVEBVE (market to book value of equity) on dividend policy proxied by DPR (dividend payout ratio) with liquidity proxied by CR (current ratio) as a moderating variable in trading, service and investment sector companies listed on the Indonesia Stock Exchange for the 2014-2019 period. The population used is all trading, service and investment sector companies listed on the IDX for the period 2014 to 2019, totaling 109 companies. The sample collection method used in this study was purposive sampling and obtained 13 companies as samples. The analysis technique used is descriptive statistical analysis, classical assumption test, hypothesis testing, and moderated regression analysis (MRA) carried out using the help of IBM SPSS 22.0 software.

Based on the results of the analysis, it is known that: (1) Investment opportunity set has no positive effect on dividend policy. (2) Liquidity is not able to moderate the relationship between investment opportunity sets on dividend policy.

Keywords: Investment opportunity set; dividend policy; liquidity.

INTRODUCTION

Technological advances and the development of science encourage the world economy to become more advanced and modern. One proof of this technological and scientific progress is the capital market. The capital market is an effective place to invest efficiently with optimal returns. Therefore, the capital market is the right place for investors to invest in achieving their goals. Basically, investors aim to get a return in the form of dividend income or capital gains. One of the attractions of investors in investing in the capital market is dividends. Investors will look for companies that are able to pay dividends because the company is considered by the public as a profitable company. (Parmitasari & Sutrisna, 2016). Generally, dividends distributed to shareholders take several forms such as stock dividends, property dividends, and cash dividends. Investors tend to expect dividends in the form of cash because dividend payments in cash have a greater degree of certainty of being received. In addition, investors also want a relatively stable dividend distribution because it shows management's efforts to avoid a decrease in the value of dividends, let alone not paying dividends in certain periods. (Sugeng, 2017, p. 251).

The trade, services and investment sector is a sector engaged in wholesale trade, small or retail trade and businesses related to the service sector such as advertising, printing and equipment, restaurants, hotels and tourism, health, computer services and equipment, investment companies, and others. The

trade, services and investment sector is a strong sector because it plays a role in meeting the general needs of everyday people and has an influence in increasing national economic growth. However, despite its role, the trade, services and investment sector faces several obstacles. Such as tax issues, labor issues, and building permit issues. The existence of these obstacles in the trade, service and investment sectors will certainly disrupt the activities and stability of the company. Therefore, the company must be able to maintain its performance to maintain the survival of the company and maintain the welfare of its shareholders. Therefore, it is necessary to analyze the factors that can affect dividend policy, especially in the trade, service and investment sectors so that it can help assist investors in meeting their objectives and assist management in increasing company value.

Previous research that discussed the effect of the variables used in this study on dividend policy variables produced different results, such as the results of research by Chayati and Asyik (2017). (2017) shows the result that the investment opportunity set has a positive and significant effect on dividend policy, while the results of research by Sumarni, et al. (2014) shows that the set of investment opportunities has a negative and significant effect on dividend policy. Then, the results of Tarwiyah's research (2018) shows that the set of investment opportunities has no effect on dividend policy. Then, research conducted by Rahmiati and Rahim (2013) shows that the investment opportunity set has no effect on dividend policy. (2013) shows that liquidity can strengthen the positive effect of investment opportunity set on dividend policy. However, the results of research conducted by Fistyarini and Kusmuriyanto (2015) However, the results of research conducted by Fistyarini and Kusmuriyanto (2015) show that liquidity is unable to strengthen the positive effect of the investment opportunity set on dividend policy.

By looking at the inconsistency of results in research using the investment opportunity set on dividend policy by using liquidity as a moderate variable and based on the explanations that have been described, the researchers are interested in conducting research again on dividend policy which is influenced by the investment opportunity set and liquidity.

LITERATURE REVIEW

Pecking Order Theory

Pecking order theory explains the level of funding that will be used by the company. If a company wants to carry out investment activities, it will use the company's internal funding sources first before finally deciding to use external funding. This is because the lowest cost of raising funds is in internally generated funds and the highest cost is in the case of raising new equity. (Gulati & Singh, 2013, p. 18).. Companies prefer to use their internal equity in financing investments and implement them as a growth opportunity. In this theory, the importance of the availability of corporate finance is due to the use of these funds for potential projects that come from the company's internal funds. (Stepanus, 2016).

Agency Theory

Agency theory was first introduced by Jensen and Meckling in 1976. This theory explains if there is a working relationship between the principal (investor) and the agent (manager). The most important thing in this theory is the authority given to the agent from the principal (Sudaryo et al., 2017, p. 61). (Sudaryo et al., 2017, p. 61).. The granting of this authority often creates a conflict of interest between owners (principals) who entrust their funds to managers (agents) to manage (Supriadi, 2020, p. 61). (Supriadi, 2020, p. 41).. This conflict will eventually lead to conflicts between investors and management. This conflict occurs because when the principal hires an agent to carry out business activities to increase shareholder value, managers often make decisions that only benefit their personal interests. Managers are parties chosen by investors to assist investors in managing the company so that managers have

better information about conditions and investment opportunities that are favorable to investors. However, sometimes the information provided by managers to investors often reflects the condition of the company that is not true until it finally creates an information imbalance commonly referred to as asymmetric information. This condition can be reduced through a monitoring mechanism to limit illegal agent actions. However, this causes costs incurred by the principal, this cost is called agency costs. This cost will be seen in the price of shares sold when sold in the market. (Rahmawati, 2017).

Dividend Policy

Dividend policy is a company decision to determine the amount of profit earned by the company at the end of the year which will be distributed to shareholders in the form of dividends or allocated as retained earnings to increase capital to finance future investments. (Harjito & Martono, 2018, p. 270).

Factors Affecting Dividend Policy

There are several factors that can affect dividend policy (Sutrisno, 2012, p. 256), namely as follows:

a) Company Solvency Position

If the company is in insolvency or solvency conditions are less favorable, then the company usually will not distribute profits. This is because the profit earned by the company is mostly used to improve its capital structure position.

b) Company Liquidity Position

Cash dividends are cash out for the company, therefore if the company pays dividends, the company must provide a lot of cash and this will reduce the company's liquidity level. For companies that have poor liquidity conditions, the DPR distributed is small because most of the profit is used to increase liquidity. However, for established companies with good liquidity, the dividends distributed tend to be large.

c) The need to pay off debts

One of the sources of company funds comes from creditors in the form of short-term and long-term debt. These debts must be repaid immediately at maturity and must provide funds to pay these debts. The more debt that must be paid, the greater the funds that must be provided so that it will reduce the dividends that will be paid to shareholders. In addition, with the maturity of the debt, the debt funds must be replaced. Alternatives to replace debt funds can be by finding new debt or rolling over debt and can also use internal sources of funds by increasing retained earnings. This will certainly have an impact on the small DPR.

d) Expansion Plan

A growing company is characterized by the rapid growth of the company. This can be seen from the expansion carried out by the company. The more rapid the growth of the company, the more rapid the expansion. The consequence of this expansion is the greater need for funds to finance the expansion. The need for funds in the context of expansion can be met either from debt, owner's capital, or internal sources of funds in the form of enlarged retained earnings. Thus, the more rapid the expansion carried out by the company, the smaller the DPR distributed.

e) Investment Opportunities

The more investment opportunities open up, the smaller the dividends paid because the funds are used to obtain investment opportunities. However, if investment opportunities are not good, then the funds will be used to pay dividends.

f) Company Stability

For companies that have stable revenues, the dividends to be paid to shareholders are greater than those of companies with unstable revenues. Companies with stable income do not need

to provide a lot of cash just in case while companies whose income is unstable must provide considerable cash just in case.

g) Supervision of the company

Sometimes the owner does not want to lose control of the company if the company seeks to raise equity capital, then there is a possibility of new investors entering and this will reduce the power of the old owner to control the company. If it is financed from debt, it is a big risk. Therefore, companies tend not to distribute dividends to keep control in their hands.

Dividend policy is generally measured using the following formula (Subramanyam & Wild, 2010, p. 39) :

a) Dividend Payout Ratio (DPR)

Dividend Payout Ratio is a ratio that measures cash dividend payments per share with earnings per share. The DPR formula is as follows:

$$DPR = \frac{Dividend\ per\ share}{Earnings\ per\ share}$$

b) Dividend Yield Ratio (DY)

Dividend Yield Ratio is a ratio that compares dividends per share with the market price per share. The DY formula is as follows:

$$DY = \frac{Dividend\ per\ share}{Market\ value\ per\ share}$$

Investment Opportunity Set

The investment opportunity set is an investment opportunity for a company that is highly dependent on the company's spending choices for future interests. (Kurniawan & Jin, 2017).

Measurement of investment opportunity sets generally uses three types of measurements, namely (Hastuti, 2013) as follows:

a) Market to Book Value of Equity (MVEBVE)

MVEBVE is a measurement of the investment opportunity set by multiplying the number of outstanding shares and the closing price of the shares divided by total equity. MVEBVE is formulated as follows:

$$MVEBVE = \frac{(market\ value\ of\ share)}{Book\ Value\ of\ equity}$$

b) Market to Book Value of Assets (MVABVA)

MVABVA is a measurement of the investment opportunity set by reducing total assets by total common equity plus the product of the number of shares outstanding at the closing price divided by total assets. MVABVA is formulated as follows:

$$MVABVA = \frac{(assets\ total - \text{equity}\ total\ ) + (market\ value\ of\ share\ x\ dividend\ current\ closing\ price)}{assets\ total}$$

c) Price Earning Ratio (PER)

Price Earning Ratio (PER) is a measurement of the set of investment opportunities measured by dividing the stock price by earnings per share. PER is formulated as follows:

$$PER = \frac{price\ of\ share}{earnings\ per\ share}$$

Liquidity

Liquidity is the company's ability to pay obligations that must be met immediately, where this obligation is short-term debt so that this ratio can be used to measure the level of short-term credit security

and measure whether the company's operations will not be disrupted if these short-term obligations are collected immediately. (Sutrisno, 2017, p. 206).

Liquidity measurement consists of current ratio, quick ratio, and cash ratio. These ratios are formulated as follows:

a) Current Ratio (CR)

According to Sutrisno (2017, p. 206)current ratio (CR) is a ratio that compares the current assets owned by the company with short-term debt. The formula for the current ratio is as follows:

$$Current\ Ratio = \frac{current\ assets}{current\ liabilities}$$

b) Quick ratio

According to Subramanyam and Wild (2010, p. 39)According to Subramanyam and Wild (2010, p. 39), the quick ratio is a comparison between cash, cash equivalents, receivables and securities with short-term liabilities. The formula for the quick ratio is as follows:

$$Quick\ Ratio = \frac{cash+cash\ equivalents+\ current\ receivables+short\ term\ investments}{current\ liabilities}$$

c). Cash Ratio

According to Sutrisno (2017, p. 207)According to Sutrisno (2017, p. 207), cash ratio (CR) is a ratio of the ratio between cash and current assets in the form of securities or securities that can immediately become cash with current debt. The formula for the cash ratio is as follows:

$$Cash\ ratio = \frac{cash + marketable\ securities}{current\ liabilities}$$

Framework of Research

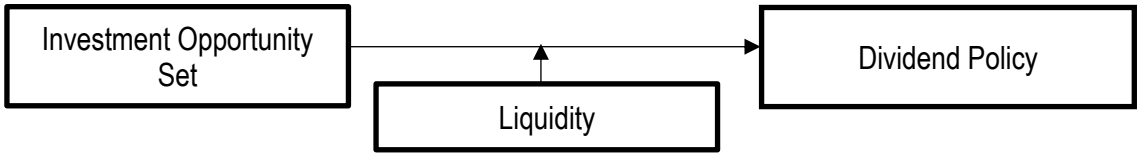

Figure 1. Framework of Thought.

In Figure 1, the scheme of the framework in this study, namely the effect of the investment opportunity set on dividend policy which is estimated to have other variables that can moderate the relationship between the investment opportunity set and dividend policy. Researchers in this study use liquidity as a variable that moderates the relationship between investment opportunity sets on dividend policy.

Hypothesis Development

Effect of Investment Opportunity Set on Dividend Policy

The relationship between investment opportunity set and dividend policy is theoretically supported by pecking order theory, in Stepanus (2016) This theory states that if the company prefers internal financing, namely funding from the company's operating results in the form of retained earnings. Internal funding will be prioritized for use to finance investment because the lowest cost of raising funds is in internally generated funds and the highest cost is in the case of raising new equity. (Gulati & Singh, 2013, p. 18).. However, internal funds are also used to make dividend payments so this will affect the level of dividend payments because the source of funds used to finance investment activities and pay dividends comes from the same source, namely internal funds.

A fast-growing company will need more funds because it has many profitable investment options, so there are fewer sources of internal funds left to pay dividends. In the end, the internal funds left for dividend payments in the period of investment activities are lower. However, with investment options that

have a positive NPV, these investment options will provide profits in the long run. Even these profits can be reused to finance investment activities or distributed as dividends. (Roos & Manalu, 2019). Thus, the investment results will increase the increase in dividends.
H1: Investment opportunity set has a positive effect on dividend policy.

The Effect of Investment Opportunity Set on Dividend Policy with Liquidity as a Moderating Variable.

The relationship between liquidity as a moderating variable on the effect of opportunity set on dividend policy is supported by agency theory. This theory states that if there is a grant of authority from investors to managers, it often creates a conflict of interest between the two.

Liquidity is a ratio that shows the ability of the company to fulfill its short-term obligations before maturity.

A company that has high liquidity will show the company's ability to pay a large amount of dividends. However, high liquidity can also be interpreted as an excess of current assets owned by the company. Excessive current assets will show if the company manager has not been maximized in using its current assets because of the large amount of idle and unproductive company cash so that finally management will try to improve the company's financial performance by analyzing business decisions that are considered detrimental with other more profitable business decisions. With the potential for good liquidity, management will tend to use this potential liquidity to make new investments, namely by investing excess current assets in liquidity into short-term investments such as investing in shares of other companies or time deposits. Thus, the company will get additional income in the form of dividends or interest so that the additional income from investment activities will increase the company's profits which means it will increase dividend payments.

This action is taken because managers have the aim of increasing the scale of the company through expansion with the main motive being to increase managers' security from the threat of being acquired by other companies (Brigham and Houston (2010) in Fistyarini and Kusmuriyanto, 2015). (2015)) and also as a company effort in maintaining dividend payments.
H2 : Liquidity moderates the relationship between investment opportunity set and dividend policy.

RESEARCH METHODS

Population and Sample

The population used in this study were all companies in the trade, service and investment sectors listed on the Indonesia Stock Exchange for the 2014-2019 period. This study uses a sample determined by purposive sampling method with the following criteria:

Table 1. Sample Criteria

No.	Description	Total company
1.	Companies included in the trade, service and investment sectors listed on the IDX for the 2014-2019 period.	109
2.	Companies that distribute their dividends consecutively during the 2014-2019 period.	13
3.	Companies whose financial statements are in Rupiah.	13
4.	Total sample that meets the criteria	13

Based on these criteria, 13 company names were included in the sample, as follows:

Name of issuers included in the sample

No.	Code Issuer	Company Name	IPO Date
1.	AKRA	AKR Corporindo Tbk.	October 03, 1994
2.	ASGR	Astra Graphia Tbk.	November 15, 1989
3.	CSAP	Catur Sentosa Adiprana Tbk.	December 12, 2007
4.	EPMT	Enseval Putera Megatrading Tbk.	August 01, 1994
5.	GEMA	Gema Grahasarana Tbk.	August 12, 2002
6.	MIDI	Midi Utama Indonesia Tbk.	November 30, 2010
7.	MPMX	Mitra Pinasthika Mustika Tbk.	May 29, 2013
8.	MTDL	Metrodata Electronics Tbk.	April 09, 1990
9.	PAGE	Panca Global Kapital Tbk.	June 24, 2005
10.	PGLI	Graha Lestari Indah Development Tbk.	May 11, 2000
11.	SCMA	Surya Citra Media Tbk.	July 16, 2002
12.	TURI	Tunas Ridean Tbk.	May 16, 1995
13.	UNTR	United Tractors Tbk.	September 19, 1989

Operational Definition and Measurement of Variables

The dependent variable in this study is the dividend policy proxied by using the dividend payout ratio (DPR). DPR will describe the percentage of profit distributed in the form of cash or cash dividends (Rahmiati & Rahim, 2013). (Rahmiati & Rahim, 2013). The independent variable in this study is the investment opportunity set proxied by market to book value of equity (MVEBVE). The MVEBVE ratio has a high correlation with future company growth so that the greater MVEBVE will describe the greater company growth. The variable used as a moderating variable in this study is the current ratio (CR). Current ratio is measured by comparing total current assets with total current liabilities (Sutrisno, 2017, p. 2). (Sutrisno, 2017, p. 206).

Table 3. Research Operational Variables

Variables	Concept	Formula
Dividend policy	Dividend payout ratio (DPR) is a dividend payout ratio measured by dividing cash dividends per share by earnings per share. (Rahmiati & Rahim, 2013).	$DPR = \frac{Dividend\ per\ share}{Earnings\ per\ share}$
Investment Opportunity Set	Market to book value of equity (MVEBVE) is a measurement of the set of investment opportunities by multiplying the number of shares outstanding and the closing price of shares divided by total equity. (Hastuti, 2013).	$MVEBVE = \frac{(market\ value\ of\ share)}{Book\ Value\ of\ equity}$
Liquidity	Current ratio is a ratio that compares the current assets owned by the company with	$Current\ Ratio = \frac{current\ assets}{current\ liabilities}$

	short-term debt. (Sutrisno, 2017, p. 206).	

RESULTS AND DISCUSSION

Descriptive Statistics Test

Descriptive statistical analysis provides a description of a research variable which in this study, namely the investment opportunity set, dividend policy and liquidity seen from the minimum value, maximum value, average value, median value and standard deviation of the research sample.

Table 4. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Investment Opportunity Set (MVEBVE)	78	13.60	1467.20	212.4756	251.32316
Dividend Policy (DPR)	78	2.44	129.06	38.3869	27.89747
Liquidity (CR)	78	67.70	475.30	197.6987	93.90531
Valid N (listwise)	78				

Based on table 4, the investment opportunity set as measured by MVEBVE has the lowest (minimum) value of 13.60 occurring in the company Gema Grahasarana Tbk. in 2016. This condition shows that if the company in that year experienced a lower market value than the total book value of its equity. Then, the highest value (maximum) of 1467.20 occurred in the Surya Citra Media Tbk. company in 2014. This condition shows that the company in that year experienced a stock market value of 14.67 times greater than the book value of equity in the company. The existence of a stock market value that is greater than the total book value of equity is due to the closing price of shares that is greater than the nominal per share of the company. The higher closing price of shares will illustrate the company's increasingly expensive share price. The high stock price is a market perspective on the growth potential of the company. Therefore, the assessment of the company's growth potential will provide a large stock price. MVEBVE is a proxy for the investment opportunity set, this proxy is a proxy that uses price as a basis to show if a company experiencing high growth will have a market value greater than its equity value. (Stepanus, 2016).

Dividend policy as measured by DPR has the lowest (minimum) value of 2.44%, which occurred in the company Enseval Putera Megatrading Tbk. in 2016. This condition shows that the company in that year retained more of its profits to carry out investment activities rather than distributing them as dividends. Then, the highest value (maximum) of 129.06% occurred in the Mitra Pinasthika Mustika Tbk. company in 2017. This condition shows that the company in that year distributed more of its profits for dividends rather than holding its profits as capital for investment activities.

Liquidity as measured by CR has the lowest (minimum) value of 67.70% occurring in the company Midi Utama Indonesia Tbk. in 2017. This condition shows that the company in that year had problems in current assets used to meet its current liabilities. Furthermore, the highest value (maximum) of 475.30% occurred in the Panca Global Kapital Tbk. company in 2019. This condition indicates that the company in that year had the ability to fulfill its current liabilities well.

Classical Assumption Test

Normality Test

The normality test aims to detect whether the residuals are normally distributed or not, it can be done by analyzing statistical analysis. In this study, the normality test used Kolmogorov-Smirnov (K-S) non-parametric statistical analysis with the following results:

Table 5. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		78
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	26.65077685
Most Extreme Differences	Absolute	.169
	Positive	.169
	Negative	-.090
Test Statistic		.169
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on table 5, the normality test results show the Asymp. Sig. (2-tailed) value of 0.000. According to Ghozali (Ghozali, 2018, p. 161)According to Ghozali (Ghozali, 2018, p. 161), if the significant value is greater than 0.05, it is said that the model is normally distributed. So it can be concluded that this model is not normally distributed because the Asymp. Sig (2-tailed) is smaller than 0.05 (0.000 <0.05). Because the normality test in this study shows that the data is not normally distributed, the researchers conducted treatment using data transformation by means of Sqrt (square root), so the research data became Sqrt_MVEBVE as the independent variable and Sqrt_DPR as the dependent variable. So get the output results of the normality test as follows:

Table 6. Normality Test Results (After Sqrt)
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		78
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.21507824
Most Extreme Differences	Absolute	.085
	Positive	.085
	Negative	-.066
Test Statistic		.085
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on table 6, the results of the normality test using the Kolmogorov-Smirnov test show the Asymp. Sig. (2-tailed) of 0.200 so it can be concluded that this model is normally distributed because the Asymp. Sig (2-tailed) is greater than 0.05 (0.200> 0.05).

Multicollinearity Test

Multicollinearity test aims to test whether or not there is a correlation between independent variables. A regression model that does not experience correlation is a good regression model (Ghozali, 2018, p. 107). To detect the presence of multicollinearity, it can be detected by looking at the tolerance value and Variance Inflation Factor (VIF). The Multicollinearity Test shows the following results:

Table 7. Normality Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.435	.598		7.412	.000		
	Sqrt_MVEBVE	.100	.041	.270	2.442	.017	1.000	1.000

Based on table 7, the tolerance value> 0.10 and VIF is not more than 10, it can be said that there are no multicollinearity symptoms in this study.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. (Ghozali, 2018, p. 137). To detect the presence or absence of heteroscedasticity, namely by looking at the SPSS output results through the Glejser test with the following results:

Table 8. Heteroscedasticity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.329	.375		6.210	.000
	Sqrt_MVEBVE	-.048	.026	-.211	-1.883	.064

a. Dependent Variable: Abs_RES

Based on graph 8, the Glejser test results show a probability value greater than the alpha value (0.064> 0.05). So, it can be concluded that the Glejser test results show that this model does not occur heteroscedasticity.

Autocorrelation Test

The autocorrelation test aims to see if in the linear regression model there is a correlation between confounding errors in period t and confounding errors in period t_{-1} (previous). Autocorrelation testing in this study uses Durbin Watson with the following results:

Table 9. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.270[a]	.073	.061	2.22960	.907

a. Predictors: (Constant), Sqrt_MVEBVE
b. Dependent Variable: Sqrt_DPR

Based on table 9, the results of the Durbin Watson test with the model under study use a total of 78 observations with a total of 1 independent variable and a real level of 5% or 0.05. Then the lower limit value (dL) is 1.6063 with an upper limit value (dU) of 1.6581 and a Durbin Watson test value of 0.907. This shows that if the regression model in this study occurs autocorrelation because the Durbin Watson value is smaller than the lower limit value (dL) or 0 < d < dL (0 < 0.907 < 1.6063) with the decision rejected.

Because the results of the autocorrelation test in this study show that the regression model occurs autocorrelation, the researchers conducted treatment to overcome the autocorrelation problem using the Cochrane-Orcutt method so as to get the Durbin Watson output results as follows:

Table 10. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.183[a]	.033	.020	1.88650	2.084

a. Predictors: (Constant), Lag_MVEBVE
b. Dependent Variable: Lag_DPR

Based on table 10, the Durbin Watson test results with the model under study use 77 observations with 1 independent variable and a real level of 5% or 0.05. Then the lower limit value (dL) is 1.6036 with an upper limit value (dU) of 1.6561 and a Durbin Watson test value of 2.084. The Durbin Watson value test results are in the dU < d < 4 - dU area (1.6561 < 2.084 < 2.3439) or in the area with the decision not to be rejected so that the regression model in this study does not occur positive or negative autocorrelation.

Partial Test Results (Statistical t Test)

Partial Test (Statistical t test) is used to test how the influence of each independent variable on the dependent variable (Ghozali, 2018, p. 98). The t test results in this study show the following results:

Table 11: Hypothesis Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.086	.372		5.601	.000
	Lag_MVEBVE	.082	.051	.183	1.608	.112

a. Dependent Variable: Lag_DPR

Based on table 11, the regression equation is obtained as follows:

$$Y = 2.086 + 0.082X_1 + e$$

Description:
Y = Dividend policy (DPR)

Xi = Investment opportunity set (MVEBVE)
e = Error

The results of the persial test show that t count < t table (1.608 < 1.99167) with a significant value> 0.05 (0.112> 0.05) meaning that the set of investment opportunities has no positive effect on dividend policy. Thus, the conclusion obtained, namely Ha_1 is rejected.

Moderation Test (Moderated Regression Analysis)

Table 12. Moderation Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.502	2.227		1.573	.120
	Lag_MVEBVE	.131	.091	.291	1.433	.156
	Lag_Moderate	-.743	1.152	-.131	-.645	.521

a. Dependent Variable: Lag_DPR

Based on table 12, the regression equation for the moderating variable can be formulated as follows:

$$Y = 3.502 + 0.131X_1 - 0.743(X_1 *Z) + e$$

Description:
Y = Dividend policy (DPR)
Xi = Investment opportunity set (MVEBVE)
Xi*Zi = Interaction of investment opportunity set (MVEBVE) with liquidity (CR)
e = Error

These results show that t count < t table (-0.645 < 1.99167) with a significant value > 0.05 (0.521 > 0.05), meaning that liquidity is unable to moderate the relationship of investment opportunity set on dividend policy. Thus, the conclusion obtained, namely Ha_2 is rejected.

The Effect of Investment Opportunity Set on Dividend Policy

The test results show that the investment opportunity set has no positive effect on dividend policy with a t value < t table (1.608 < 1.99167) with a significant value> 0.05 (0.112> 0.05). The results of this study are in line with Ariandani and Yadyana (2016)Natalia (2013) and Tarwiyah (2018) which proves that the investment opportunity set has no effect on dividend policy.

The implication of the results of this study is that companies in the trade, service and investment sectors have not been able to generate maximum profits from the investment activities that have been carried out. An example of a case occurred in the company PT Metrodata Electronics Tbk (MTDL) in 2016 which closed one of its subsidiaries, namely Soltius Pte Ltd domiciled in Singapore on the grounds that the company was no longer operating or was no longer active. Then, the subsidiary experienced a decline in profits followed by a very slight growth in the company's revenue. Then, companies in the trade, services and investment sector are sectors whose business activities focus on buying and selling goods, distributing goods and providing services, where companies in this sector are dominant in inventory and fixed assets for service activities which cause investment activities in companies in this sector to take a longer time for the return on investment activities that have been carried out and are prone to depreciation so that this has an impact on the income received by the company. So, it can be concluded that the set of investment opportunities has no positive effect on dividend policy in trading, service and investment companies listed on the IDX in 2014-2019.

The Effect of Investment Opportunity Set on Dividend Policy with Liquidity as a Moderating Variable.

The test results show that liquidity is not able to moderate the effect of investment opportunity set on dividend policy with t count < t table (-0.645 < 1.99167) with a moderate significant value of MVEBVE multiplication interaction with CR more than 0.05 (0.521 > 0.05). The results of this study are in line with Simarmata and Hutajulu (2017)Fistyarini and Kusmuriyanto (2015). (2015), Azmi and Listiadi (2014), Marleadyani and Wiksuana (2016), and Roos and Manalu (2019) which proves that liquidity is unable to moderate the relationship between investment opportunity sets on dividend policy.

The implication of the results of this study is that most companies in the trade, service and investment sectors prefer long-term investment by increasing their non-current assets. In addition, companies tend to use their liquidity capabilities to pay dividends because this will affect investors' perspectives and trust in the company.

CONCLUSIONS

Based on the results of data analysis regarding the effect of investment opportunity set on dividend policy with liquidity as a moderating variable in trading, service, and investment sector companies listed on the Indonesia Stock Exchange for the 2014-2019 period, the following conclusions are obtained: (1) Investment opportunity set has no positive effect on dividend policy. (2) Liquidity is unable to moderate the relationship between investment opportunity sets on dividend policy.

Based on the results of the research and discussion in this study, the recommendation of the future researchers not be limited to the investment opportunity set variable alone so that they can measure dividend policy more comprehensively. The future research can use other moderating variables that are considered capable of moderating the effect of investment opportunity set on dividend policy such as using firm size as a moderating variable. Then, to increase the number of research samples with a longer and more recent observation period and use a wider population.

The implication of the research for the companies, it is hoped that companies will be able to maximize their ability to generate profits through investment activities in order to increase company value and increase investor interest. Then, for investors and prospective investors before making or making decisions in investing in a company, they should assess or look at financial reports from various aspects. This is so that investors get more accurate information about the prospects of a company so that the invested capital can provide returns as expected.

REFERENCE

Ariandani, P. S., & Yadnyana, I. K. (2016). Liquidity Moderates the Effect of Profitability and Investment Opportunity Set (IOS) on Dividend Policy. E-Journal of Accounting, Udayana University, 17(1), 615-634.

Azmi, M. N., & Listiadi, A. (2014). Analysis of the Effect of Profitability and IOS on Dividend Policy with Liquidity as a Moderating Variable in Manufacturing Companies. Journal of Management Science, Surabaya State University, 2(3), 990-1001.

Chayati, N. N., & Asyik, N. F. (2017). The Effect of Profitability, Investment Opportunities and Leverage on Cash Dividend Policy. Journal of Accounting Science and Research, 6(9), 1-16.

Fistyarini, R., & Kusmuriyanto. (2015). The Effect of Profitability, Ios and Leverage on Cash Dividend Policy with Moderated Liquidity. Accounting Analysis Journal, 4(2), 1-8.

Ghozali, I. (2018). Application of Multivariate Analysis with IBM SPSS 25 Program 9th Edition. UNDIP Publishing Agency.

Gulati, S., & Singh, Y. P. (2013). Financial Management. McGraw Hill Education.

Harjito, D. A., & Martono. (2018). Financial Management. Yogyakarta: Ekonisia.

Hastuti, D. (2013). The Effect of Profitability and Investment Opportunity Set on Cash Dividend Policy with Liquidity as a Moderating Variable in Manufacturing Companies on the Indonesia Stock Exchange for the Period 2008-2011. State University of Yogyakarta.

Kurniawan, W. A., & Jin, T. F. (2017). Factors Affecting the Value of Non-Financial Companies Listed on the Indonesia Stock Exchange. Journal of Business and Accounting, 19(3), 191-199.

Marleadyani, D. V., & Wiksuana, I. G. B. (2016). The Effect of Economic Value Added and Investment Opportunity Set on Cash Dividend Policy. E-Journal of Management Unud, 5(1), 88-120.

Natalia, D. (2013). The Effect of Profitability and Investment Opportunities on Dividend Policy in Manufacturing Companies Listed on the IDX. Journal of Chemical Information and Modeling, 53(9), 1-22.

Parmitasari, R. D. A., & Sutrisna. (2016). The Effect of Profitability on Cash Dividend Policy with Liquidity as a Moderating Variable (Study of Consumer Goods Companies Listed on the Indonesia Stock Exchange for the Period 2010-2014). Journal of Minds: Management Ideas and Inspiration, 3(2).

Rahmawati, S. (2017). Agency Conflict and Corporate Governance in Indonesia. Syiah Kuala University Press.

Rahmiati, Y., & Rahim, R. (2013). The Effect of Profitability and Investment Opportunity Set (IOS) on Dividend Policy with Liquidity as a Moderate Variable. Journal of Fekon Unand.

Roos, N. M., & Manalu, E. S. (2019). The Effect of Managerial Ownership, Institutional Ownership, and Investment Opportunities on Dividend Policy with Liquidity as a Moderating Variable. Journal of Accounting and Business Studies, 4(1), 24-39.

Simarmata, H. Y., & Hutajulu, L. (2017). The Effect of Profitability and Investment Opportunity Set on Dividend Policy with Liquidity as Moderator. Journal of Regional Accounting & Finance, 12(2), 29-42.

Stepanus, V. A. (2016). The Effect of Profitability and Investment Opportunity Set on Dividend Policy with Liquidity as a Moderating Variable. University of Bengkulu Faculty.

Subramanyam, K. R., & Wild, J. J. (2010). Financial Statement Analysis 10th Edition.

Sudaryo, Y., Sjarif, D., Sofiati, N. A., & Christian, P. (2017). Finance in the Era of Regional Autonomy. CV Andi Offset.

Sugeng, B. (2017). Fundamental Financial Management. Deepublish.

Sumarni, I., Yusniar, M. W., & Juniar, A. (2014). The Effect of Investment Opportunity Set on Dividend

Policy. Journal of Management Insights, 2(2), 201-212.
Supriadi, I. (2020). Accounting Research Methods. Deepublish Publisher.
Sutrisno. (2012). Financial Management Theory, Concepts and Applications. Ekonisia.
Sutrisno. (2017). Financial Management Theory, Concepts and Applications. Ekonisia.
Tarwiyah, L. (2018). The Effect of Investment Opportunity Set, Leverage, Profitability and Liquidity on Dividend Policy. State Islamic University (UIN) Maulana Malik Ibrahim.
www.idx.co.id
idnfinancials.com
indopremier.com
finance.yahoo.com