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Determinant factor of firm value in covid-19 pandemic: role of dividend policy as mediating variable

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ABSTRACT

The purpose of this research is to analyze the determinant factors of firm value during the COVID-19 pandemic and the role of dividend policy as a mediation variable. This study uses multiple linear regression and the Sobel test as a data analysis tool to measure dividend policy as a mediating variable between profitability, liquidity, free cash flow, leverage, company growth, investment opportunities, and company value during the COVID-19 pandemic. The results of the study show that profitability, liquidity, free cash flow, leverage, company growth, and COVID-19 have an effect on dividend policy and company value. However, investment opportunities have no effect on dividend policy or firm value. While the results of the Sobel test showed interaction, this study found that dividend policy mediates the effect of profitability, liquidity, free cash flow, leverage, company growth, and COVID-19 on company value. This study expands on empirical evidence on the determinants of firm value in the COVID-19 pandemic that is currently reported to be inconclusive and fills a gap in the existing literature by focusing on the issue of the determinants of firm value in the context of dividend policy as a mediating variable in the COVID-19 pandemic.



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Introduction

Currently, the whole world is experiencing an outbreak of COVID-19, including Indonesia. The spread of this virus will have an impact on the national economy and social life worldwide ((Bapuji et al. 2020); (Brammer, Branicki, and Linnenluecke 2020)). This impact can slow down economic growth and also affect various industrial sectors in Indonesia. The Central Statistics Agency (BPS) noted that economic growth in the first quarter of 2020 only reached 2.97%, this growth slowed compared to the achievement of the first quarter of 2019 of 5.07% (Central Bureau of Statistics, 2020). This is due to the Covid-19 pandemic.

In this ongoing economic turmoil, COVID-19 has severely affected equity markets and most stock indexes worldwide have fallen (World Economic Forum 2020). This statement is reinforced by the opinion of (D. Zhang, Hu, and Ji 2020) that COVID-19 has affected financial markets around the world, generating an unprecedented level of risk, and that investors have suffered greatly in a short period of time. Stock markets have fallen, and stock market volatility has increased dramatically around the world ((Ali, Alam, and Rizvi 2020); (Baker et al. 2020)). Every company is impacted by COVID-19 and faces significant losses in all aspects of running its business (Bapuji et al. 2020). Thus, the company's performance will decrease and make the

velocity of money slow down. Likewise, foreign and domestic investors will leave the capital markets of developing countries and investors will look for safe assets during the COVID-19 pandemic. If the company's performance decreases, the stock price will decrease and affect the company's dividend policy which also impact to firm value.

This condition is reinforced by the results of previous research which stated that COVID-19 had an effect on dividend policy ((Krieger, Mauck, and Pruitt 2021); (Cejnek, Randl, and Zechner 2021)) and firm value (Bose et al. 2022), while some various studies stated that many factors have been appointed as determinants of dividend policy and firm value in Pandemic Covid-19 period ((Cejnek, Randl, and Zechner 2021); (May Shella et al. 2020); (Ramadhania et al. 2020); (Ambarwati, Astuti, and Azzahra 2021); (Krieger, Mauck, and Pruitt 2021); (P. Zhang, Gao, and Li 2021); (SATRIO 2020); (Gunanta 2021)), while others previous research analyzed financial performance in Pandemic Covid-19 period ((Devi et al. 2020); (Supeno 2021); (Gunanta 2021); (Golubeva 2021)). Further some previous research also analyzed some factors as determinant for firm value in covid-19 pandemic using indicators such as Current Ratio, Debt to Equity Ratio, Return on Assets, Return on Equity, Net Profit Margin (Ambarwati, Astuti, and Azzahra 2021), while (Oktaria and Alexandro 2020) using Capital Structure, Investment Opportunity Set and Profitability.

Based on the results of previous research, it is observed that the different characteristics of the company and the factors that determine the dividend policy and firm value. By looking at the problems in research that are inconsistent with the results of one study with another and some theory such as the dividend irrelevance theory of (Modigliani and Miller 1958) which states that the value of the firm is only determined by the company's ability to generate earnings and business risk. This theory is opposed by Gordon and Lintner (1963), who argued that investors prefer paying dividends to capital gains (dividend is relevant), considering that investors value dividends more highly than future capital gains. This theory is known as the bird-in-the-hand theory. Still within the framework of complementing the existing discourse, the tax preference theory has also developed, which stated that investors prefer capital gains over dividends, considering that it is more economical in terms of taxes. However, it is unclear why research results generally reject the (Modigliani and Miller 1958) theory. So, it is necessary to have further research related to the factors that affect the dividend payout ratio and firm value in manufacturing sector companies on the IDX. In addition, based on the findings of different research on determinant dividend policy and firm value, this study includes the mediating variable self-financing ratio on the effect of profitability, liquidity, free cash flow, leverage, firm growth and investment opportunities for dividend policy. The addition of this mediating variable is a uniqueness of this study compared to previous studies, because research on the existing self-financing ratio was found to be an independent variable on dividend policy.

Covid-19

According to the World Health Organization (WHO), coronaviruses are a group of viruses that can cause disease in animals or humans. Corona virus is known to have several types that cause respiratory tract infections in humans ranging from coughs to colds to more serious ones such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The newly discovered virus causes the disease COVID-19. According to WHO, COVID-19 is an infectious disease caused by a newly discovered type of coronavirus. The cause of this new virus and disease was unknown before the outbreak began in Wuhan, China, in December 2019. The COVID-19 pandemic has now spread to many countries around the world.

Firm Value

According to (Gitman 2015), firm value is the actual value per share that will be received if the company's assets are sold according to the share price. Sartono in (Rahmawati 2015) Company value is the selling value of a company as an operating business. The existence of excess selling value over the liquidation value is the value of the management organization that runs the company. According to (Noerirawan 2012), firm value is a condition that has been achieved by a company as an illustration of public trust in the company after going through a process of activities for several years, from the time the company was founded until now. The types of measurement of firm value according to (Irham 2012) are as follows: Earning per share (EPS), Price Earning Ratio (PER) or Price Profit Ratio, Price Book Value (PBV).

Dividend Policy

Dividend policy is a decision regarding how much current profit will be paid as dividends in lieu of investment invested and how much is retained for reinvestment in the company (Brigham and Houston 2015). According to (Husnan and Pudjiastuti 2012) dividend policy concerns the issue of using profits which are the rights of shareholders, and this profit can be divided as dividends or retained earnings to be reinvested. According to (Gitman 2015) dividend payout ratio indicates the percentage of each dollar earned that a firm distributes to the owners in the form of cash. It is calculated by dividing the firm's cash dividend per share by its earning per share.

Profitability

According (Brigham and Houston 2015) tated that profitability is the final result of a number of policies and decisions made by a company. Profitability ratios are a group of ratios that show the combined effects of liquidity, asset management and debt on operating results. Profitability according to (Irham 2012) is a ratio measuring the effectiveness of management which is indicated by the size of the level of profit obtained in relation to sales and investment. The profitability ratio measures the company's ability to generate profits from the business activities it carries out. A high Return on Asset means that the company can use its assets maximally to get profit, so that the higher the ROA, the higher the profit owned by the company. High company profits will make the company have more funds that can be used either to distribute dividends or to hold. This increase in funds will increase the company's ability to pay dividends.

Liquidity

The definition of liquidity according to (Brigham and Houston 2015) is an asset that is traded in an active market so that it can be converted quickly into cash at the prevailing market price, while the liquidity position of a company is related to the question whether the company is able to pay off its debt when the debt matures in Next. Liquidity of firm is signed by the sufficient amount of cash flow (Hanafi and Halim 2012). Furthermore, (Hanafi and Halim 2012) explains that a firm with good cash flow is expected to own the possibility to pay the greater amount of dividends.

Free Cash Flow

According to (Keown et al. 2010) stated that if the company has free cash flow, it would be better if it was distributed to shareholders in the form of dividends; this is to avoid making bad decisions for management, which ultimately results in an increase in agency cost. According to (Brigham and Houston 2015) defined free cash flow as cash flow that is available to be distributed to all investors (shareholders and debt owners) after the company has placed all its investments in fixed assets, new products and working capital needed to maintain current operations walk.

Leverage

According to (Brigham and Houston 2015) the Leverage ratio is a ratio that measures the extent to which a company uses financing through debt (financial leverage), while according to (Irham 2012) Leverage is a measure used in analyzing financial statements to show the amount of collateral available to creditors. If the company uses external sources of expenditure (foreign capital), the fixed costs can be in the form of loan interest, whereas if the company uses machines, the company must bear the fixed costs in the form of depreciation of the machines. According to (Harahap 2013) stated that leverage is a ratio that describes the relationship between corporate debts to capital; this ratio can see to what extent the company is financed by debt or external parties with the company's capabilities as described by capital

Company Growth

Growth is how far the company places itself in the overall economic system or the economic system for the same industry. Rapid growth forces its human resources to contribute optimally (Machfoedz 1996). According to (Brigham and Houston 2015), companies that have faster growth must rely more on external capital. According to (Handoko 2017) said that company growth is one indicator or measurement of company development or growth in a certain period

Investment Opportunities

According (Adam and Goyal 2008) stated that the investment opportunity set plays a very important role i corporate finance related to the achievement of company goals. Investment opportunity set generally describes the breadth of investment opportunities or opportunities for a company, but it really depends on the company's financing options for future interests. The value of the company is highly dependent on the value of its assets and investment opportunities are not only physical, but can also be opportunities that provide benefits for the company.

Further, as previously stated, there have been many studies that have analyzed the relationship between variables, for example research which stated that firm value is influenced by dividend policy ((Putra and Lestari 2016); (Khuzaini, Artiningsih, and Paulina 2017); (Ramadhania et al. 2020)), While some other previous research investigated factors that influence on firm value with the same factors for dividend policy such as profitability ((Ernawati and Widyawati 2015); (Putra and Lestari 2016); (Khuzaini, Artiningsih, and Paulina 2017); (Fajaria and Isnalita 2018)), liquidity ((Putra and Lestari 2016); (Fajaria and Isnalita 2018); (Massie, Tommy, and Koleangan 2018), free cash flow ((Cohee, Piccolo, and Kiymaz 2020); (Nasution 2020)), leverage ((Ernawati and Widyawati 2015); (Khuzaini, Artiningsih, and Paulina 2017); (Fajaria and Isnalita 2018)), firm growth ((Deli and Kurnia 2017); (Fajaria and Isnalita 2018)), investment opportunities (Khuzaini, Artiningsih, and Paulina 2017).

Then, some previous research has shown that some factors influence dividends policy such as profitability ((Cristea and Cristea 2017); (Kumar 2020); (Gul et al. 2020); (Yusuf et al. 2020)), liquidity (Cristea and Cristea 2017), free cash flow ((Kumar 2020); (Gul et al. 2020)), leverage ((Cristea and Cristea 2017), firm growth ((Kumar 2020); (Yusuf et al. 2020)), investment opportunities ((Brahmaiah 2018); (Nathani and Gangil 2019)).

Method

The research method used in this research is descriptive method with the approach used is a quantitative approach, namely research using numbers and analyzed using statistics to solve a problem. The main sources in this research are the company's financial reports and annual reports from the Indonesia Stock Exchange (IDX) website, namely www.idx.co.id and the official websites of each company. The variables being measured are: (1) Firm Value. The indicator of this profitability is the company's ability to earn a profit. The data used to assess profitability in this study is the financial statements of manufacturing companies which are consecutively in 2019-2020 obtained through www.idx.co.id, which is measured by Return on Assets (ROA), which is expressed in units of ratio, this ratio can be calculated by formula. (2) Dividend Policy. The indicator of this dividend policy is the Dividend Payout Ratio, which is the ratio of dividend payments to shareholders. Dividend policy is a decision to determine the amount of profit (earning) that will be distributed to shareholders and the portion that will be retained by the company.

The data used in this study are financial reports (annual reports) on manufacturing companies that consecutively distribute dividends in 2019-2020 obtained through www.idx.co.id, which is measured by the Dividend Payout Ratio (DPR). expressed in units of ratio, this ratio can be calculated by a formula:

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share}}{\text{Earning Per Share}} \times 100\%$$

Free Cash Flow

The indicator of this free cash flow is a cash flow that is actually available to be distributed to all investors (shareholders and debt owners) after the company has placed all its investment in fixed assets, new products, and working capital needed to maintain ongoing operations. The data used to assess free cash flow in this study is the financial statements of manufacturing companies in 2019-2020 obtained through www.idx.co.id, which are expressed in units of ratios, this ratio can be calculated by the formula:

$$\text{Free cash flow} = \frac{\text{CFO} - (\text{NCE} + \text{CWC})}{\text{Total Asset}}$$

Leverage

The indicator of this leverage is a ratio that measures the extent to which a company uses financing through debt. A balance or comparison between the amount of short-term debt that is permanent, long-term debt, preferred stock, and common stock. The data used to assess Leverage in this study is the financial statements of manufacturing companies which are consecutively in 2019-2020 obtained through www.idx.co.id, which is measured by the Debt to Equity Ratio (DER), which is stated in the unit ratio, this ratio can be calculated by the formula:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}} \times 100.$$

Profitability

The indicator of this profitability is the company's ability to earn a profit. The data used to assess profitability in this study is the financial statements of manufacturing companies which are consecutively in 2019-2020 obtained through www.idx.co.id, which is measured by Return on Assets (ROA), which is expressed in units of ratio, this ratio can be calculated by formula:

$$\text{Return On Asset} = \frac{\text{Net Income}}{\text{Total Asset}}$$

Liquidity

The indicator of this liquidity is the company's ability to meet its short-term obligations. The data used to assess liquidity in this study are the financial statements of manufacturing companies which are consecutively in 2019-2020 obtained through www.idx.co.id, as measured by the Current Ratio (CR), which is expressed in ratio units, this ratio can be calculated by a formula:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}} \times 100\%.$$

Growth

The company's growth rate is a component for assessing the company's prospects in the future. This ratio will examine its effect on dividend policy in companies that are members of manufacturing companies during the observation period, namely 2019-2020. Systematically, the company's growth rate can be formulated as follows:

$$\text{Growth} = \frac{\text{Total Aset } t - \text{Total Aset } t-1}{\text{Total Aset } t-1}$$

Investment Opportunity Set

The indicator of this Investment Opportunity Set is investment options in the future and reflects the growth in assets and equity. The data used to assess the investment opportunity set in this study are financial reports (annual reports) on manufacturing companies in 2019-2020 obtained through www.idx.co.id, which are expressed in terms of ratio or percentage (%), this ratio. can be calculated by formula:

$$\text{CAPBVA} = \frac{\text{fixed asset}_t - \text{fixed asset}_{t-1}}{\text{total assets}_t}$$

Pandemic Covid 19

The populations in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2020 periods. The research sample was taken by using purposive sampling method, namely the sampling technique of data sources with certain considerations. With the following sample selection criteria: 1) Manufacturing sector companies that are consistently listed on the Indonesia Stock Exchange (IDX) during the 2019-2020 period. 2) Manufacturing companies that consistently publish annual financial reports for the 2019-2020 periods. 3) Manufacturing companies that consistently paid dividends during the 2019-2020 periods. Based on the predetermined criteria, data on a sample of 16 manufacturing companies can be obtained with a study period of 2019-2020. The method chosen is descriptive statistics, classical assumption test, and hypothesis testing. This study used multiple linear regressions and the Sobel test as a data analysis tool.

Results and Discussions

Coefficient of Determination Test

The coefficient of determination test was conducted to find out how far the model's ability to explain the independent variables was. Table 1 The following shows the results of the coefficient of determination test for the Equation Model 1

Table 1. Test the R-Square Value of Model-1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659 ^a	.793	.797	.069517

Based on Table 1 it can be seen that the coefficient R value for Equation 1 Model is 0.659 or 65.9%, which means that profitability, liquidity, free cash flow, leverage, firm growth, investment opportunities and Covid-19 Pandemic have a correlation strong influence on dividend policy ($R > 0.5 - 0.75$). The value of R Square is 0.793, which means that 79.2% of the factors that influence dividend policy can be explained by profitability, liquidity, free cash flow, leverage, firm growth, investment opportunities and Covid-19 Pandemic. While the remaining 20.8% is explained by other factors not examined in this study.

The results of the coefficient of determination test for the Equation 2 model can be seen in Table 2. below this.

Table 2. Test the R-Square Value of Model-2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578 ^a	.593	.636	.059324

Based on Table 2 it can be seen that the coefficient R value for Equation 2 Model is 0.578 or 57.8%, which means that profitability, liquidity, free cash flow, leverage, firm growth, investment opportunities and Covid-19 Pandemic also dividend policy have a correlation strong influence on firm value ($R > 0.5 - 0.75$). The value of R Square is 0.593, which means that 59.3% of the factors that influence firm value can be explained by

profitability, liquidity, free cash flow, leverage, firm growth, investment opportunities and Covid-19 Pandemic also dividend policy. While the remaining 40.7% is explained by other factors not examined in this study.

Partial Significance Test

The t statistic test was used to determine the effect of one independent variable individually in explaining the variation of the dependent variable. To test whether H1 is accepted or rejected is to compare t count with t table. If t count > t table, then H0 is rejected and H1 is accepted, and vice versa. Based on the t statistical test that has been carried out, then in Table 3 the following shows the results of the partial significance test for the Equation Model 1

Table 3. Partially Hypothesis Testing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.381	.199		1.916	.060
	ROA	.533	.943	.386	5.252	.000
	CR	.083	.956	.372	3.514	.024
	FCF	.495	.275	.302	1.803	.077
	DER	.770	.149	.856	5.153	.000
	GROWTH	.896	.249	.775	3.600	.001
	IOS	-.833	.438	-.272	-2.903	.062
	COVID	-.062	.066	-.147	-3.939	.032

Based on table 3 test results of the hypothesis, it can be concluded that the results of the hypothesis testing data show that the significant value $0.000 < 0.05$ and $t\text{-count}=5.252 > t\text{-table}=1.96$, which means that Profitability has a significant positive effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.024 < 0.05$ and $t\text{-count}=3.514 > t\text{-table}=1.96$, which means that liquidity has a significant positive effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.077 > 0.05$ and $t\text{-count}=1.803 < t\text{-table}=1.96$, which means that free cash flow has a no significant effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.000 < 0.05$ and $t\text{-count}=5.153 > t\text{-table}=1.96$, which means that leverage has a significant positive effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.001 < 0.05$ and $t\text{-count}=3.600 > t\text{-table}=1.96$, which means that firm growth has a significant positive effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.062 > 0.05$ and $t\text{-count}=-2.903 < t\text{-table}=-1.96$, which means that investment opportunities has no significant effect on dividend policy. The results of the hypothesis testing data show that the significant value $0.032 < 0.05$ and $t\text{-count}=-3.939 > t\text{-table}=-1.96$, which means that Covid has a significant negatif effect on dividend policy. The results of the partial significance test for the Equation 2 Model can be seen in table 4 below.

Table 4. Partially Hypothesis Testing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.824	.379		2.326	.030
	ROA	.533	.853	.426	2.597	.001
	CR	.083	.796	.379	2.574	.024
	FCF	.495	.315	.509	1.907	.096
	DER	.770	.319	.684	2.639	.000
	GROWTH	.896	.268	.596	3.024	.035
	IOS	-.833	.458	-.732	-1.948	.062
	COVID	-.062	.078	-.271	-2.349	.028
	DPR	.946	.527	.604	3.216	.011

Based on table 4 test results of the hypothesis, it can be concluded that the results of the hypothesis testing data show that the significant value $0.001 < 0.05$ and $t\text{-count}=2.597 > t\text{-table}=1.96$, which means that Profitability has a significant positive effect on firm value. The results of the hypothesis testing data show that the significant value $0.024 < 0.05$ and $t\text{-count}=2.574 > t\text{-table}=1.96$, which means that liquidity has a significant positive effect on firm value. The results of the hypothesis testing data show that the significant value $0.096 > 0.05$ and $t\text{-count}=1.907 < t\text{-table}=1.96$, which means that free cash flow has a no significant effect on firm value. The results of the hypothesis testing data show that the significant value $0.000 < 0.05$ and $t\text{-count}=2.639 > t\text{-table}=1.96$, which means that leverage has a significant positive effect on firm value. The results of the hypothesis testing data show that the significant value $0.035 < 0.05$ and $t\text{-count}=3.024 > t\text{-table}=1.96$, which means that firm growth has a significant positive effect on firm value. The results of the hypothesis testing data show that the significant value $0.062 > 0.05$ and $t\text{-count}=-1.948 < t\text{-table}=-1.96$, which means that investment opportunities has no significant effect on firm value. The results of the hypothesis testing data show that the significant value $0.028 < 0.05$ and $t\text{-count}=-2.349 > t\text{-table}=-1.96$, which means that Covid has a significant negatif effect on firm value. The results of the partial significance test for the Equation 2 Model can be seen in table 4 below.

table=1,96, which means that firm growth has a significant positive effect on firm value. The results of the hypothesis testing data show that the significant value $0.062 > 0.05$ and $t\text{-count} = -1.948 < t\text{-table} = -1,96$, which means that investment opportunities has no significant effect on firm value. The results of the hypothesis testing data show that the significant value $0.028 < 0.05$ and $t\text{-count} = -2.349 > t\text{-table} = -1,96$, which means that Covid has a significant negative effect on firm value. The results of the hypothesis testing data show that the significant value $0.011 < 0.05$ and $t\text{-count} = 3.216 > t\text{-table} = 1,96$, which means that dividend policy has a significant positive effect on firm value

Furthermore, the Sobel test was carried out to determine the dividend policy variable as an intervening/mediator variable. The results can be seen in table 5 below

Table 5. Analysis of the Dividend Policy as mediating variable

Variable	t-count of Sobel Test	t-table	significance
ROA	2,578	1,654	significant
CR	2,964	1,654	significant
FCF	2,472	1,654	significant
DER	2,498	1,654	significant
GROWTH	1,697	1,654	significant
IOS	[-2,906]	1,654	Not significant
COVID	1,986	1,654	significant

Based on Table 5 can be seen that the results of the significance test for the indirect effect of profitability, liquidity, free cash flow, leverage, firm growth, and Covid-19 Pandemic on bond ratings with dividend policy as the intervening variable produce the respective counts for these variables are 2.578, 2.964, 2.472, 2.498, 1.697 and 1.986 which are higher than t table with a significant level of 0.05 which is 1.654, then the coefficient of indirect influence for each of these variables is significant, while investment opportunities is in significant. So it can be concluded that there is significant intervening effect for each of the profitability, liquidity, free cash flow, leverage, firm growth and Covid-19 Pandemic through dividend policy as intervention variable.

This study aims to determine the effect of profitability, liquidity, free cash flow, leverage, firm growth, investment opportunities and Covid pandemic on firm value mediated by dividend policy in manufacturing companies listed on the IDX for the 2019-2020 periods. The discussion of the test results as follows:

The effect of profitability on dividend policy

The results of research on the effect of profitability on dividend policy show that profitability has a positive and significant effect on dividend policy, this indicated that the higher the ability of manufacturing companies on the Indonesia Stock Exchange to generate profits, the higher the rate of dividend payments. If it is related to the dividend policy theory, it can be said that investors prefer a stable or flexible dividend policy where stable dividends will be maintained for several years and then if the profits earned increase, the dividends to be paid will also increase. The results of this study are in accordance with the findings of research that stated that profitability positively impacts on the dividend policy ((Cristea and Cristea 2017); (Brahmaiah 2018); (Nathani and Gangil 2019); (Kumar 2020); (Gul et al. 2020)).

The effect of liquidity on dividend policy

Based on the results, it can be concluded that liquidity has a significant negative effect on dividend policy. This shows that the high liquidity owned by manufacturing companies on the Indonesia Stock Exchange, and balanced with a high level of company growth, the tendency for company funds to be used for working capital in large amounts to support the number of sales, so that increased sales will result in increased profit as well. The profit earned by the company is mostly used for fixed asset investment, so that high liquidity causes a decrease in dividends distributed. The results of this study are consistent with the findings of research which is stated that liquidity has significant effect on dividend policy ((Cristea and Cristea 2017); Patrick, et. al., 2017; (Brahmaiah 2018); (Nathani and Gangil 2019)).

The effect of free cash flow on dividend policy

The results of research show that free cash flow has no significant effect on dividend policy, this indicates that the high free cash flow of manufacturing companies on the Indonesia Stock Exchange is accompanied by a high company growth rate, thus the free cash flow obtained can not be used for investments that have an impact on the company being unable to distribute large dividends, so that free cash flow does not become the basis for the company to pay dividends. The results of this study are not accordance with the previous research that shown free cash flow has effect on dividend policy ((Nathani and Gangil 2019); (Kumar 2020); (Gul et al. 2020)).

The effect of leverage on dividend policy

The results of research on the effect of leverage on dividend policy show that leverage has a positive and significant effect on dividend policy. This indicates that the increasing use of debt of manufacturing companies on the Indonesia Stock Exchange can increase profits, so that companies are able to increase the dividends to be paid. The results of this study are in accordance with the findings of previous research which stated that leverage has a positive and significant effect on dividend policy ((Cristea and Cristea 2017); (Brahmaiah 2018); (Nathani and Gangil 2019)).

The effect of growth on dividend policy

The results of research show that leverage has significant effect on dividend policy; this indicates that the increased growth of a manufacturing company on the Indonesia Stock Exchange has no effect on profit or profit, so that the dividend policy to be paid has effect. The results of this study are consistent with the findings of research conducted by several studies which stated that company growth affects dividend policy ((Nathani and Gangil 2019); (Kumar 2020)).

The effect of Investment Opportunity Set on dividend policy

The results of research shown that the Investment Opportunity Set has no significant effect on dividend policy; this indicates that the increasing use of debt of manufacturing companies on the Indonesia Stock Exchange can increase profits, so that companies are able to increase dividends to be paid. The results of this study are inconsistent with the findings of research which stated that the investment opportunity set has a negative and significant effect on dividend policy ((Brahmaiah 2018); (Nathani and Gangil 2019)).

The effect of Covid-19 on dividend policy

The results of research shown that the Covid-19 has negative significant effect on dividend policy this indicates that the increasing Covid-19 in Indonesia can decrease profits, so that companies are able to increase dividends to be paid. The results of this study are consistent with the findings of research which stated that the Covid-19 has negative significant effect on dividend policy ((Krieger, Mauck, and Pruitt 2021); (Cejnek, Randl, and Zechner 2021)).

The effect of profitability on firm value

The results of research on the effect of profitability on firm value show that profitability has a positive and significant effect on firm value, this indicated that the higher the ability of manufacturing companies on the Indonesia Stock Exchange to generate profits, the higher the rate of dividend payments. If it is related to the dividend policy theory, it can be said that investors prefer a stable or flexible dividend policy where stable dividends will be maintained for several years and then if the profits earned increase, the dividends to be paid will also increase. The results of this study are in accordance with the findings of research that stated that profitability positively impacts on the firm value ((Ernawati and Widyawati 2015); (Putra and Lestari 2016); (Khuzaini, Artiningsih, and Paulina 2017); (Fajaria and Isnalita 2018)).

The effect of liquidity on firm value

Based on the results, it can be concluded that liquidity has a significant negative effect on firm value. This shows that the high liquidity owned by manufacturing companies on the Indonesia Stock Exchange, and balanced with a high level of company growth, the tendency for company funds to be used for working capital in large amounts to support the number of sales, so that increased sales will result in increased profit as well. The profit earned by the company is mostly used for fixed asset investment, so that high liquidity causes a decrease in dividends distributed. The results of this study are consistent with the findings of research which is stated that liquidity has significant effect on firm value ((Putra and Lestari 2016); (Fajaria and Isnalita 2018); (Massie, Tommy, and Koleangan 2018)).

The effect of free cash flow on firm value

The results of research show that free cash flow has no significant effect on firm value, this indicates that the high free cash flow of manufacturing companies on the Indonesia Stock Exchange is accompanied by a high company growth rate, thus the free cash flow obtained can not be used for investments that have an impact on the company being unable to distribute large dividends, so that free cash flow does not become the basis for the company to pay dividends. The results of this study are not accordance with the previous research that shown free cash flow has effect on firm value ((Cohee, Piccolo, and Kiymaz 2020); (Nasution 2020))

The effect of leverage on firm value

The results of research on the effect of leverage on firm value show that leverage has a positive and significant effect on firm value. This indicates that the increasing use of debt of manufacturing companies on the Indonesia Stock Exchange can increase profits, so that companies are able to increase the dividends to be paid. The results of this study are in accordance with the findings of previous research which stated that leverage has

a positive and significant effect on firm value ((Ernawati and Widyawati 2015); (Khuzaini, Artiningsih, and Paulina 2017); (Fajaria and Isnalita 2018)).

The effect of growth on firm value

The results of research show that leverage has significant effect on firm value; this indicates that the increased growth of a manufacturing company on the Indonesia Stock Exchange has no effect on profit or profit, so that the firm value to be paid has effect. The results of this study are consistent with the findings of research conducted by several studies which stated that company growth affects firm value ((Deli and Kurnia 2017); (Fajaria and Isnalita 2018)).

The effect of Investment Opportunity Set on firm value

The results of research shown that the Investment Opportunity Set has no significant effect on firm value; this indicates that the increasing use of debt of manufacturing companies on the Indonesia Stock Exchange can increase profits, so that companies are able to increase dividends to be paid. The results of this study are inconsistent with the findings of research which stated that the investment opportunity set has a negative and significant effect on firm value (Khuzaini, Artiningsih, and Paulina 2017).

The effect of Covid-19 on firm value

The results of research shown that the Covid-19 has negative significant effect on firm value this indicates that the increasing Covid-19 in Indonesia can decrease profits, so that companies are able to increase dividends to be paid. The results of this study are consistent with the findings of research which stated that the Covid-19 has negative significant effect on firm value ((Krieger, Mauck, and Pruitt 2021); (Cejnek, Randl, and Zechner 2021)).

The effect of dividend policy on firm value

The results of research show that dividend policy has significant effect on firm value; this indicates that the increased dividend policy of a manufacturing company on the Indonesia Stock Exchange has no effect on profit or profit, so that the firm value to be paid has effect. The results of this study are consistent with the findings of research conducted by several studies which stated that dividend policy affects firm value ((Putra and Lestari 2016); (Khuzaini, Artiningsih, and Paulina 2017); (Ramadhania et al. 2020)).

Dividend Policy as a mediating variable in the effect of Profitability, Liquidity, Free Cash Flow, Leverage, Growth, Investment Opportunity Set and Covid-19 on firm value

Based on the results of hypothesis testing, it shows that Dividend Policy is able to play a role as a mediating variable in the influence of profitability, liquidity, free cash flow, leverage, and growth on firm value. The results of this study enrich the position of the Dividend Policy variable which was previously only an independent variable, although the Dividend Policy is not able to mediate the effect of the Investment Opportunity Set on dividend policy. The results of this study are consistent with the findings of research conducted by several studies which stated that dividend policy as mediating variable (Fajaria and Isnalita 2018)).

Conclusions

Based on the results of the analysis and discussion previously presented, it can be concluded from this study that profitability, liquidity, free cash flow, leverage and growth has a significant effect on dividend policy and firm value. Investment Opportunity Set have no significant effect on dividend policy and firm value; This happens because the free cash flow owned by the company is used for the company's operational costs as internal financing, slow growth because the funds are embedded in fixed assets, besides the Investment Opportunity Set is very small so that it is not the basis for the company to pay dividends. Covid-19 has a negative and significant effect on dividend policy and firm value; This shows that the Covid-19 pandemic is not able to increase dividend payments, actually lowers the dividend payments and firm value because the company funds tend to be used for working capital in increasing sales volume. Dividend Policy is able to moderate the influence of Profitability, Liquidity, Free Cash Flow, Leverage, Growth and covid-19 on firm value, so that it can be the basis for dividend distribution.

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