QUBAHAN ACADEMIC JOURNAL
VOL. 6, NO. 1, March 2026
https://doi.org/10.48161/qaj.v6n1a1425

Assessment of Manufacturing Firm Performance on Firm Values During and After Covid-19 Epidemic

Yamasitha [1]*, Aminullah Assagaf [1] and Zefriyenni [1]

[1] Management Department, Faculty of Economics and Business, University Putra Indonesia YPTK Padang 25221, Indonesia.

* **Corresponding author**: yamasitha@upiyptk.ac.id.

ABSTRACT: This study examines the impact of asset growth, sales growth, capital structure, managerial ownership, tax planning, inflation rate, and GDP growth on firm value, with dividend policy as a moderating variable. The sample consists of 64 manufacturing companies listed on the Indonesia Stock Exchange over the period 2020–2023, divided into during and after the COVID-19 pandemic. Data were obtained from annual financial reports and analyzed using multiple regression and Moderated Regression Analysis (MRA). The results show that during the COVID-19 period, asset growth, sales growth, capital structure, managerial ownership, and inflation rate significantly influence firm value, while tax planning and GDP growth do not. In the post-COVID-19 period, asset growth, sales growth, capital structure, and tax planning have a significant effect, while managerial ownership, inflation, and GDP growth do not. Furthermore, dividend policy moderates several relationships, particularly strengthening the effects of asset growth, sales growth, and tax planning on firm value. However, it does not moderate the relationship between GDP growth and firm value in both periods. This study contributes to the existing literature by providing a comparative analysis of firm value determinants during and after the COVID-19 period and by examining the moderating role of dividend policy in an emerging market context.

Keywords: firm value, asset growth, capital structure, dividend policy, COVID-19.

I. INTRODUCTION

Bank Indonesia (SKBI) published the Consumer Survey on Monday (1/10), the December 2021 Consumer Confidence Index (CCI) was recorded at 136.8 points, lower than November 2021's 137.8 points. The decline in the CCI is due to the moderation of all index components forming the CCI, including business activities and job availability [1]. The Business Activity Expectations Index (IEKU) and Job Availability Expectations Index (IEKLK) were recorded at 139.2 points and 133.7 points, respectively, lower than the previous levels of 140.7 points and 134.9 points. The survey is based on the economic conditions of Indonesia and even the world, which were impacted by COVID-19. The COVID-19 pandemic was formally designated by the World Health Organization (WHO) [2]. At the end of 2019, the coronavirus made its debut in Wuhan, China [3]. Numerous nations worldwide have been impacted by this virus.

On second of March, 2020, the first case in Indonesia was reported. Socializing, education, worship, and other aspects of human life have all undergone significant modifications as result of COVID-19 epidemic. This pandemic poses a threat to both global economic growth and health. Countries started enforcing regional limits, mask-wearing, lockdowns, self-quarantine, physical and social separation, and work from home (WFH) policies in effort to stop spread of COVID-19. This attempts to stop COVID-19 from spreading. The Indonesian government is no exception, as it implemented Large-Scale Social Restrictions (PSBB) initially in DKI Jakarta,

followed by other regions in Indonesia. The PSBB requirements have significantly impacted business operations in Indonesia [4]. However, Indonesia still has other potential, namely its large population. This large population can be a key to increasing Indonesia's competitiveness. Labor productivity will rise as education and skill levels improve. National competitiveness will eventually rise as a result of this growth in labor productivity [5]. Companies must raise their worth in order to become more competitive. If stock price increases, company value can maximize shareholder prosperity. The prosperity of shareholders increases with a company's stock price. For investors, enterprise value (EV), sometimes referred to as firm value, is a crucial idea since it shows how the market views the business overall.

Many factors influence value of firm, both inside and outside [6]. Internally, asset growth is one element influencing a company's worth. Asset growth can also affect company value. High asset growth is expected for the development of the company, both internally and externally, as high growth signals company development. From an investor's perspective, Growth indicates that a business is lucrative and that investors can anticipate high returns on their capital [7]. Company value is favorably and dramatically impacted by asset expansion. Sales growth is another internal aspect that affects a company's worth. The company's past accomplishments are reflected in sales growth, which is utilized to forecast future performance. Growth in sales may also be a sign of firm's capability to compete in market. A positive and growing sales growth suggests a large firm value, which is what the owner expects. Sales growth is a metrical that investors use to measure the firm's prospects before making an investment. Besides these growth factors, another factor affecting company value is capital structure [8].

The proportion of firm's total capital to its debt and equity is known as its capital structure. Financial management functions can help the firm reach its aim of optimizing its value, as each and every financial choice has an impact on additional financial choices and, ultimately, corporate rate. Since scale of the business itself provides a solid guarantee for debt servicing or residual cash payments in the event of liquidity, large companies tend to rely more on debt. The more debt a firm uses in its capital structure, the larger the interest and installment payments become, becoming the company's liabilities and raising the possibility that its cash flows won't be able to pay them. Given that corporate governance mostly focuses on regulating the conduct of top executives to safeguard the interests of the company's owners (shareholders), management ownership is another element affecting the value of a business. The origins of corporate governance difficulties can be found in the evolution of agency theory, which describes how managers, owners, and creditors would act in a firm since they fundamentally have conflicting interests.

On the other hand, company value is influenced by its relationship with the government, which requires more attention since companies cannot escape the government's role, creating obligations for companies known as taxes [9]. Tax issues create a conflict between companies and the government, where companies try to minimize the taxes paid to the state to increase their income [10]. Companies exploit this by engaging in tax planning, known as tax avoidance. Tax avoidance is part of tax planning aimed at minimizing tax payments. Government tax collection efforts do not always receive a positive response from companies. Companies are among the largest taxpayers contributing to state tax revenue, while illegal tax payment reduction efforts are known as tax evasion. Macroeconomic fundamentals, which are outside the company's control, and microeconomic fundamentals, which are within the company's control, are often used by capital market investors as a foundation for their investment choices. This research focuses only on macroeconomic fundamentals with indicators of inflation and gross domestic product growth. In Indonesia's economy, the inflation rate is known to negatively affect economic growth. Here is a comparison of inflation data in several countries:

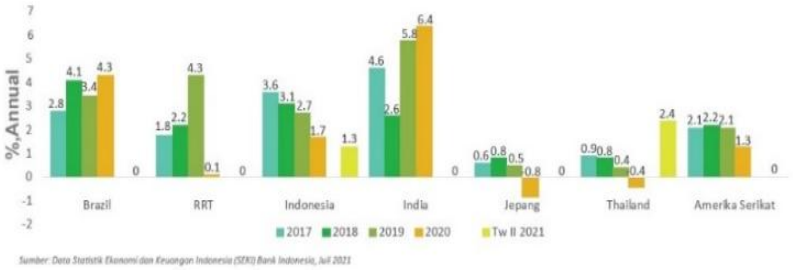

FIGURE 1. Comparison of country inflation rates.

From the image above, it can be seen that the inflation rate in Indonesia appears higher than in other countries. Therefore, it is important for the government to implement policies that maintain price stability and slow down inflation in Indonesia. Observing the current conditions, there was growth in the second quarter of 2021 of 7.07% (GDP Year-on-Year) and inflation of 1.3%, indicating that purchasing power has improved, but people prefer to save their money rather than spend it. However, amid the COVID-19 pandemic affecting the world, Indonesia's opportunity to boost the competitiveness of its industrial sector is still quite significant. The Manufacturing Value Added (MVA) of the National Industry shows a continuing improvement trend, rising by 3.43% per year. Although Indonesia's MVA decreased by 1.07% in 2020, the decline was the smallest compared to six other countries. This is evident from the comparison of MVA among countries shown in the image [10].

FIGURE 2. Country MVA comparison.

Inflation tends to affect the capital market both directly and indirectly. Changes in inflation are immediately responded to by the capital market, making it highly potential to increase or decrease systematic risk. Inflation is an economic indicator that depicts the decline in the value of the rupiah, marked by rising prices of essential goods in the market. Increasing inflation can reduce people's purchasing power because the prices of essential goods rise while people's incomes remain the same. Hence, inflation often becomes a problem, especially if the government fails or is unable to control its growth rate. Inflation in a country greatly affects the exchange rate or value of its currency. Generally, inflation tends to reduce the value of a foreign currency. This tendency is due to the effect of inflation causing domestic prices to be higher than imported goods, resulting to a rise in imports and a fall in exports as their costs rise [8, 9].

Another macro factor to consider is Gross Domestic Product (GDP). The population, the size and abundance of natural resources, the amount of capital stock, and the degree of technology employed are the four main elements that affect economic growth. GDP is the total production of products and services generated by manufacturing facilities in a particular area at a specific time. Rapidly growing GDP indicates economic growth, which impacts increasing people's purchasing power. This becomes an opportunity to increase sales, which boosts profits and stock prices, thus driving up the company's value. Therefore, for investors, economic

growth is used as a consideration in making investments. In 2020, Indonesia's GDP reached USD 1.18 trillion. Indonesia's economic performance amid the global economic turmoil due to the COVID-19 pandemic is considered quite good. In 2021, Indonesia's economic growth was expected to reach 4.4% by the World Bank, higher than Japan and Thailand. Japan's economic growth in 2021 was estimated at 2.9%, while Thailand was projected to grow only by 2.2%. However, Indonesia's economic growth in 2021 was still predicted to be below Brazil and Vietnam [11]. This phenomenon is illustrated as follows:

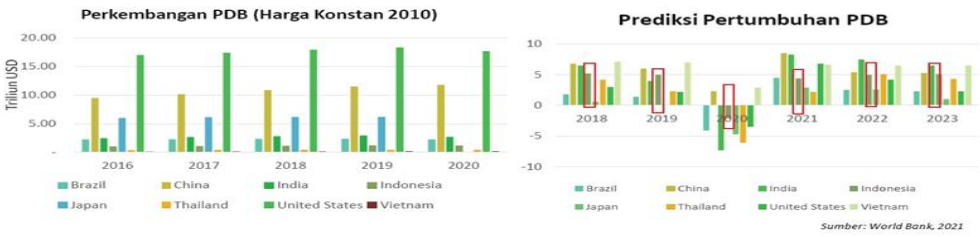

FIGURE 3. Country GDP comparison.

The manufacturing sector has a strong future in Indonesia, due to its development and its substantial GDP (gross domestic product) contribution to Indonesia. As a high-value producer, the manufacturing sector has strong financial performance, strategic importance, and impact. The fluctuations in the capital market's stock prices have become an interesting phenomenon to discuss in relative to the issue of the business's value fluctuations. Built on previous research showed by several researchers, there are still gaps or inconsistencies. This study aims to compare the results between previous studies and current research. Built on the background of problems mentioned above, researcher is eager to do out studies under the title "Determinants of Company Value During and Dividend policy as a moderating variable prior to the COVID-19 epidemic".

Despite extensive prior research on firm value determinants, limited studies have examined how these relationships differ between crisis and post-crisis periods. In particular, the moderating role of dividend policy under such conditions remains underexplored, especially in emerging markets such as Indonesia. During the COVID-19 pandemic, firms faced significant challenges, including disruptions in production processes, declining consumer demand, supply chain interruptions, and increased financial uncertainty. These factors have not been sufficiently integrated into prior studies on firm value, creating a clear research gap. This study addresses this gap by providing a comparative analysis of firm value determinants during and after the COVID-19 period, while incorporating dividend policy as a moderating variable across firm-level and macroeconomic factors. The study is grounded in Agency Theory, Trade-off Theory, and Signaling Theory, which explain managerial behavior, capital structure decisions, and market signaling effects. This research is significant as it provides empirical evidence on how internal and external factors influence firm value during crisis and recovery periods, offering practical insights for investors, policymakers, and corporate managers. Based on the above discussion, this study addresses the following research questions:

- How do asset growth, sales growth, capital structure, managerial ownership, tax planning, inflation, and GDP growth affect firm value during and after COVID-19?
- Does dividend policy moderate the relationship between these variables and firm value?
- Are there differences in determinants of firm value between the COVID-19 period and the post-pandemic period?

Based on the theoretical framework and identified research gaps, the following hypotheses are proposed:

- H1: Asset growth has a significant effect on firm value.
- H2: Sales growth has a significant effect on firm value.
- H3: Capital structure has a significant effect on firm value.
- H4: Managerial ownership has a significant effect on firm value.
- H5: Tax planning has a significant effect on firm value.
- H6: Inflation rate has a significant effect on firm value.
- H7: GDP growth has a significant effect on firm value.

- H8: Dividend policy moderates the relationship between independent variables and firm value.

This study is structured as follows: the next section reviews relevant literature and develops hypotheses. The methodology section explains data collection, variables, and analytical techniques. The results and discussion section presents empirical findings, followed by conclusions and implications.

II.RELATED WORK

This section presents the operational definitions and measurement formulas of all variables used in the empirical analysis. These formulas are applied in calculating variables for regression and Moderated Regression Analysis (MRA). The equations presented in this section are used to operationalize variables in the empirical analysis. These formulas guide the measurement of each variable applied in the regression and MRA models.

1. FIRM VALUE

Goal of shareholders is a high value of firm since it signifies great shareholder profitability. The market price of shares, which reflects choices about financing, investment, and asset management, represents the wealth of the company and its owners. Firm Value can be calculated in a number of ways. Tobin's Q is used in this study to determine business value. The Tobin's Q Formula [10] :

$$Tobin's\ Q = \frac{MVE + Debt}{TA} \quad (1)$$

Where the entire market value of the outstanding shares of a business is referred to as its MVE (Market Value of Equity), Debt is the total debt of corporation, TA (Total Assets) is total value of a firm's resources.

2. ASSET GROWTH

Asset growth is highly anticipated for the development of the company both inside and outside, as high growth signifies the business's progress. Asset Growth Formula [12]:

$$Asset\ Growth = \frac{Asset\ value\ in\ year\ n - Asset\ value\ in\ year\ (n-1)}{Asset\ value\ in\ year\ (n-1)} \times 100\% \quad (2)$$

Where: Asset Value in year n is value of asset in year n, Asset Value in year (n -1) is the asset value in the previous year.

3. SALES GROWTH

Sales growth can be used to forecast future growth since it shows how previous investments have performed. A business in a sector that is expanding quickly has to have enough money to support its ongoing operations. Sales Growth Formula [13]:

$$Sales\ Growth = \frac{Sales\ Growth\ in\ year\ n - Sales\ Growth\ in\ year\ (n-1)}{Sales\ Growth\ in\ year\ (n-1)} \times 100\% \quad (3)$$

Where: Sales in year n is sales in year n, Sales in year (n-1) is sales in the previous year.

4. CAPITAL STRUCTURE

Capital structure is a long-term funding form reflecting the balance between long-term obligation and equity. Capital Structure Formula [4]:

$$DER = \frac{Total\ of\ Debt}{Total\ of\ Equity} \times 100\% \quad (4)$$

Where DER is Capital structure, Total of Debt is total debt of the company, Total of Equity is total equity of the company.

5. MANAGERIAL OWNERSHIP

Managerial ownership (insider rights) is a measure of percentage of shares maintained by directors, organization, and commissioners or any party directly involved in the company's decision-making. Managerial Ownership Formula:

$$Managerial\ Ownership = \frac{Number\ of\ shares\ owned\ by\ management}{Total\ shares} \times 100\% \quad (5)$$

Where: Total of Debt is total debt of the company, Total of Equity is total equity of the company.

6. TAX PLANNING

The first stage of tax management is tax planning and the process of organizing business and taxpayer groups to minimize tax liabilities and company tax burdens, as long as it is permitted by laws and regulations. This variable is measured using ETR (Effective Tax Rate).

7. INFLASION RATE

The occurrence of a general, continuous, and systematic increase in the price of goods can outcome in a decline in the rate of a country's currency. Inflation Rate Formula:

$$I = \frac{A1-A0}{A1} \times 100\% \quad (6)$$

Where $A1$ Represents value of quantity at the current time period (new value), $A0$ Represents value of quantity at the previous time period (initial or old value).

8. GROSS DOMESTIC PRODUCT GROWTH

GDP is a tool for measuring expansion of the economy rates. Economic growth reflects an increasing standard of living over time (one year) for people in a country due to increased income, enabling people to consume more and varied goods and services. GDP Formula:

$$PDB = \frac{Yt-(Yt-1)}{Yt-1} \times 100\% \quad (7)$$

Where Yt represents the GDP in the current period t (current year or quarter), Yt -1 represents the GDP in the previous period $t-1$ (previous year or quarter).

9. DIVIDEND POLICY

The amount of money sent to shareholders as a result of the company's business operations is known as the dividend policy. Formula of Dividend Policy:

$$DPR = \frac{DPS}{EPS} \times 100\% \quad (8)$$

Where Dividends Per Share (DPS) represents the amount of dividend paid out for each share of stock, EPS (Earnings Per Share) this is the percentage of a business's earnings that is allotted to each outstanding share of common stock.

III. MATERIAL AND METHOD

1. DATA COLLECTION

The study uses secondary data obtained from audited financial statements of manufacturing firms listed on the Indonesia Stock Exchange. Data include balance sheets, income statements, and macroeconomic indicators. This study employed quantitative data as its data type. Secondary data from corporate reports, such as yearly

financial reports that are accessible on Indonesia Stock Exchange, served as research's data basis. Document research is the method utilized to gather data. For this research, information about company is gathered from Indonesia Stock Exchange's Report of Annual, Factbook, and ICMD, which are all available online at http://www.idx.co.id. The study relies on secondary data obtained from audited financial statements published by companies listed on the Indonesia Stock Exchange. These data sources ensure a high level of accuracy and reliability.

The purposive sampling criteria include: (1) firms consistently listed during the study period, (2) availability of complete financial data, and (3) firms reporting in Indonesian Rupiah. The 205 manufacturing originalities that are registered on the Indonesia Stock Exchange for the 2020–2023 timeframe make up the research's population. Non-probability sampling, more especially purposeful sampling with particular standards, was sampling method employed in this research, yielding 64 businesses samples.

2. RESEARCH DESIGN

This study employs panel data, combining cross-sectional data (64 firms) and time-series data (2020–2023), allowing for a more comprehensive analysis of changes over time. The selection of variables is based on prior empirical and theoretical studies indicating their relevance in explaining firm value. Firm-specific variables reflect internal performance, while macroeconomic variables capture external economic conditions. Multiple regression analysis was chosen to estimate the direct effects of independent variables on firm value. Moderated Regression Analysis (MRA) was applied to examine the moderating role of dividend policy, as it allows interaction effects to be tested explicitly. The study ensures reliability and validity by using audited financial statements and standardized financial ratios commonly applied in prior literature.

The quantitative data used in this research takes the form of numerical values that serve as indicators of the Firm Value of manufacturing companies registered between 2020 and 2023 on Indonesia Stock Exchange. Causal research is methodology employed. Using financial records for the years 2020–2023, this causal study not only assesses the degree of correlation between two or more variables, but it also illustrates direction of relationship between independent and dependent variables (addressing cause-and-effect concerns).

2.1. Data Analysis

The normalcy test's objective is to ascertain whether residual or disturbance variables in the model of regression have a distribution of normal. The normality of the residuals can be checked using the non-parametric Kolmogorov-Smirnov (K-S) test. The residuals are regularly dispersed if the K-S test consequence value is a smaller amount than 0.05 (α 5%) [14].

Purpose of the multicollinearity test is to determine whether independent variables in regression model exhibit a substantial connection with one another. The Variance Inflation Factor (VIF) and tolerance levels are examined in order to perform this test. Multicollinearity between the independent variables does not exist if the value of tolerance exceeds 0.10 and the value of VIF is below than 10. Purpose of heteroscedasticity test is to determine if regression model's residual variance is unequal across observations. By looking at the regression results' significance value, the Glejser test can identify this. Heteroscedasticity is absent if it exceeds 0.05.

Finding a link between the disturbance errors in period t-1 and the linear regression model's disturbance errors in period t is the goal of the autocorrelation test. The Durbin-Watson test can be used to identify this. Rule of thumb is that there is no autocorrelation if (dU < dW < 4-dU).

2.2. Hypothesis Testing

Coefficient of Determination Test (R^2): the modifying effect of independent factors on dependent variable is expressed by coefficient of determination. Degree of certainty is estimated and evaluated regression using multiple linear models [15].

2.3. Testing of Hypothesis (t-test)

Procedure involves looking at t-test output results in SPSS on Coefficients table. If the p-value (in the Sig column) of each independent variable is ≤ 0.05 with 95% level of confidence or level of significance is 5% (α = 0.05), it means that variables of independent have a partial impact on variable of dependent [16].

2.4. Multiple Regression Model Estimation

Quasi-moderation occurs when the moderating variable interacts with the independent variable while also having a direct effect on the dependent variable. Predictor moderation occurs when the moderating variable acts only as an independent predictor without significant interaction effects [17]. These classifications are determined based on the significance of interaction terms and main effects.

Moderated regression analysis (MRA) is particular type of regression using multiple linear models in which regression equation incorporates an interaction factor:

$$NPit = a + \beta1.PAit + \beta2.PPit + \beta3.SMit + \beta4.KM\ it + \beta5.TPit + \beta6.TIit + \beta7.PDB\ it + \beta8.PAit*KDit + \beta9.PPit*KDit + \beta10.SMit*KDit + \beta11.KM\ it*KDit + \beta12.TPit*KDit + \beta13.TIit*KDit + \beta14.PDBit*KDit + eit$$

The use of audited financial data and standardized financial ratios enhances the reliability and validity of the measurements. Furthermore, the sampling criteria ensure consistency and completeness of the dataset.

IV. DATA ANALYSIS

All variables used in the regression models were calculated based on the formulas presented in the previous section. The data were analyzed using multiple regression analysis to examine the direct relationships between independent variables and firm value [18-21]. In addition, Moderated Regression Analysis (MRA) was employed to test the moderating effect of dividend policy through interaction terms. These statistical methods are appropriate for panel data analysis and are widely used in prior studies to examine both direct and moderating relationships among variables.

1. RESULT OF CLASSICAL ASSUMPTION TEST

1.1. Test of Normality

To determine whether research data being examined originates from a population with a normal distribution, normality testing is carried out. Since normally distributed data is suitable for use in research, normality test's goal is to ascertain if data utilized in the variables is normal or not. One Sample Kolmogorov-Smirnov Test table can be used to determine if the data is normally distributed. On a multivariate level, it can be said that the data is regularly dispersed if the meaning value is higher than 0.05.

Table 1. Result of normality test.

N		**128**
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	9.9767137
Most Extreme Differences	Absolute	0.094
	Positive	0.094
	Negative	-0.058
Test Statistic		.0.94
Asymp. Sig. (2-tailed)		0.006[c]

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

The One Sample Kolmogorov-Smirnov Test indicates that the N (number of data points) employed in this research is 128 based on above table. Asymp. Sig (2-tailed) value at a significance level of 0.05 can be used to assess data's normalcy. In this instance, data distribution is considered normal if Sig. value is less than 0.05. On other hand, data distribution is not normal if the Sig. value is higher than 0.05. The preceding table indicates

that 0.008 is Asymp. Sig (2-tailed) value. As a result, it may be said that the research data is normally dispersed because Sig. variable is smaller than 0.05.

1.2 Test of Multicollinearity

The multicollinearity test seeks to determine whether the independent variables in the regression model are correlated.

Table 2. Multicollinearity test result.

Tolerance	VIF
.746	1.341
.783	1.277
.907	1.103
.918	1.090

Since the VIF value is less than 10, the coefficients in the above table demonstrate that there are no multicollinearity issues with the VIF values for any of the variables. Since there is no multicollinearity, it can be said that the research is possible.

1.3 Heteroscedasticity Test

Finding out if the variance of the residual data varies or remains constant across observations is the goal of testing the traditional assumption of heteroscedasticity.

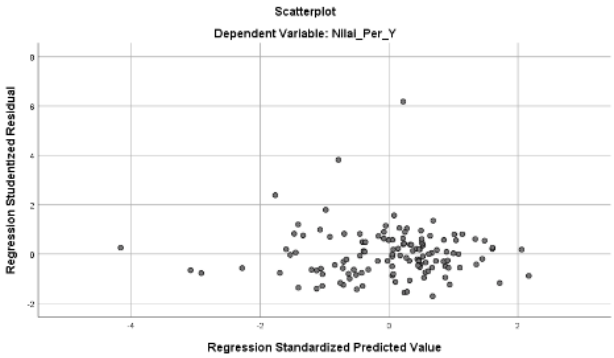

FIGURE 4. Heteroscedasticity test result.

Based on the image above, the analysis is:

- The data points are dispersed around 0 or above and below.
- Information does not merely accumulate above or below.
- There is no wavy pattern formed by the distribution of data points that widens, narrows, and widens again.
- There is no pattern in the data points' distribution. Therefore, it can be said that heteroscedasticity does not exist.

1.4 Test of Autocorrelation

Finding a link between the data's unsettling errors in the linear regression model is the goal of the autocorrelation test. A regression model is deemed good if it has no correlation.

Table 3. Autocorrelation test result.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.362	.131	.088	1.02211	1.363

In the preceding table, the Durbin-Watson value is 1.363. This indicates that there is no autocorrelation issue with the study model.

1.5 Result of Hypothesis Testing

Table 4. Coefficients test result during Covid-19.

Model	Variable	B	Std. Error	Beta	t	Sig.
1	(Constant)	5.267	4.418	—	1.192	.235
	Pert Ast X1	.740	.396	.180	1.870	.004
	Pert Penj X2	.458	.510	.084	.899	.037
	Strktr Mdl X3	.538	.185	.254	2.911	.041
	Kep Mnj X4	.108	.132	.070	1.819	.014
	Per Pjk X5	-1.190	.746	-.140	-1.595	.113
	Tngkt Inf X6	.351	.443	.025	.621	.021
	Pert PDB X7	-38.876	46.802	-.071	-.831	.408

The following tests can be carried out based on the findings of examining the effects of the following variables on firm value (Y) with dividend policy (Z) acting as a moderating variable: asset growth (X1), sales growth (X2), capital structure (X3), managerial ownership (X4), tax planning (X5), inflation rate (X6), and GDP growth (X7):

- Examining Hypothesis 1 (H1). According to test results, Asset Growth (X1) has a t-statistic value of 1.870 at 0.004 significance level. This suggests that the Asset Growth (X1) variable influences the firm value in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in years 2020–2021, as value is higher than 5% significance level (0.004 < 0.05).
- Examining Hypothesis No. 2 (H2). Sales Growth (X2) has a t-statistic value of 0.899 with a significance level of 0.037, according to the test results. This suggests that Sales Growth (X2) variable influences firm value in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in years 2020–2021, since the Sales Growth (X2) value is below the 5% significance level (0.037 < 0.05).
- The Third Hypothesis (H3) is being tested. Capital Structure (X3) has a t-statistic value of 2.911 with a significance level of 0.041, according to the test results. The Capital Structure (X3) variable influences the firm value of manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in the years 2020–2021, as the value is below the 5% significance level (0.041 < 0.05).
- The Fourth Hypothesis (H4) is being tested. Managerial Ownership (X4) has a t-statistic value of 1.819 with a significance level of 0.014, according to the test results. This suggests that the Managerial Ownership (X4) variable influences the firm value in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in years 2020–2021, since Managerial Ownership (X4) value is below 5% significance level (0.014 < 0.05).
- The Fifth Hypothesis (H5) is being tested. Tax Planning (X5) has a t-statistic value of -1.595 with a significance level of 0.113, according to test results. Tax Planning (X5) variable does not impact the firm

value of manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in years 2020–2021, as Tax Planning (X5) value is higher than 5% significant level (0.113 > 0.05).

- Examining Hypothesis No. 6 The Inflation Rate (X6) has a t-statistic value of 0.621 with a significance level of 0.021, according to the test results. This suggests that the Inflation Rate (X6) variable influences the firm value of manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in years 2020–2021, as Inflation Rate (X6) value is below 5% significance level (0.021 < 0.05).
- Examining Hypothesis Seven (H7). GDP Growth (X7) has a t-statistic value of -0.831 with a significance level of 0.408, according to the test results. The GDP Growth (X7) variable does not impact the firm value of manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, as GDP Growth (X7) value is higher than 5% significance level (0.408 > 0.05).

F Test and Determination Coefficient Test (R2) During Covid-19. The following table displays the F test's findings:

Table 5. ANOVA test result during Covid-19.

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.812	6	3.302	3.178	0.076
	Residual	125.720	121	1.039		
	Total	145.532	127			

[a] Dependent Variable: Nilai_Per_Y
[b] Predictors: (Constant), Pert_Pdb_X7, Strktr_Mdl_X3, Kep_Mnj_X4, Pert_Penj_X2,
[c] Pern_Pjk_X5, Pert_Ast_X1

According to the preceding table, the error rate is 0.05, the Sig value is 0.764, and F-statistic value is 3.178. According to the findings, which indicate that probability value generated is 0.764 <0.05, it is concluded that managerial ownership, capital structure, asset growth, sales growth, tax planning, inflation rate, and GDP growth all significantly affect company value in manufacturing companies registered on Indonesia Stock Exchange in 2020–2021. The Adjust R-squared test yielded a coefficient of determination of 0.638. The findings show that the following factors can influence company value by 63.8%: Asset Growth, Sales Growth, Capital Structure, Managerial Ownership, Tax Planning, Inflation Rate, and GDP Growth. Remaining 36.2% is influenced by other factors.

1.6 Hypothesis Testing After Covid-19

Table 6. Coefficients test result after Covid-19.

Model	Variable	B	Std. Error	Beta	t	Sig.
1	(Constant)	1.189	0.497	—	2.391	0.018
	Pert Ast X1	0.231	0.255	0.065	1.907	0.036
	Pert Penj X2	0.200	0.111	-0.132	1.812	0.027
	Strktr Mdl X3	0.553	0.161	0.247	3.428	0.017
	Kep Mnj X4	0.180	0.440	0.029	0.410	0.683
	Pern Pjk X5	0.327	0.576	0.041	1.567	0.021
	Tngkt Inf X6	0.448	1.463	0.085	0.306	0.760
	Pert PDB X7	-1.136	5.622	-0.056	-0.202	0.840

[a] Dependent Variable: Nilai_Per_Y

The following can be tested in light of the findings of the tests looking at how Firm Value (Y) is affected by Asset Growth (X1), Sales Growth (X2), Capital Structure (X3), Managerial Ownership (X4), Tax Planning (X5), Inflation Rate (X6), and GDP Growth (X7), with Dividend Policy (Z) acting as a moderating variable:

- Hypothesis Eighth (H8) is being tested. According to the test results, Asset Growth (X1) has a t-statistic value of 1.907 at 0.036 significance level. This suggests that Asset Growth (X1) variable influences the firm value in manufacturing companies registered on the Indonesia Stock Exchange following COVID-19, notably in years 2022-2023, as value is below 5% significance level (0.036 < 0.05).
- Examining Hypothesis No. 9 (H9). Sales Growth (X2) has a t-statistic value of 1.812 with a significance level of 0.027, according to the test results. This suggests that Sales Growth (X2) variable influences firm value in manufacturing companies registered on Indonesia Stock Exchange following COVID-19, notably in years 2022-2023, as the Sales Growth (X2) value is below the 5% significance level (0.027 < 0.05).
- Examining Hypothesis No. 10 (H10). Capital Structure (X3) has a t-statistic value of 3.428 with a significance level of 0.017, according to the test results. This suggests that Capital Structure (X3) variable influences firm value in manufacturing companies registered on Indonesia Stock Exchange following COVID-19, specifically in years 2022-2023, as value is below 5% significance level (0.017 < 0.05).
- Examining Hypothesis Eleven (H11). Managerial Ownership (X4) has a t-statistic value of 0.410 with a significance level of 0.683, according to the test results. The Managerial Ownership (X4) variable does not impact the firm value of manufacturing companies registered on Indonesia Stock Exchange after COVID-19, specifically in years 2022-2023, as Managerial Ownership (X4) value is higher than 5% significance level (0.683 > 0.05).
- Examining Hypothesis No. 12 (H12). Tax Planning (X5) has a t-statistic value of 1.567 with a significance level of 0.021, according to test results. Tax Planning (X5) variable does have an impact on firm value of manufacturing companies registered on Indonesia Stock Exchange following COVID-19, particularly in years 2022–2023, since Tax Planning (X5) value is higher than 5% significance level (0.021 > 0.05).
- Examining Hypothesis No. 13 (H13). Inflation Rate (X6) has a t-statistic value of 0.306 with a significance level of 0.760, according to test results. Inflation Rate (X6) variable does not impact firm value of manufacturing companies registered on Indonesia Stock Exchange following COVID-19, notably in years 2022-2023, as Inflation Rate (X6) value is higher than 5% significance level (0.760 > 0.05).
- Examining Hypothesis No. 14 (H14). GDP Growth (X7) has a t-statistic value of -0.202 with a significance level of 0.840, according to test results. GDP Growth (X7) variable does not impact firm value of manufacturing companies registered on Indonesia Stock Exchange following COVID-19, notably in years 2022-2023, asvalue is higher than 5% significance level (0.840 > 0.05).

F Test and Determination Coefficient Test (R2) After Covid-19. The following table displays the F test's findings:

Table 7. ANOVA test result after Covid-19.

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.807	7	2.544	2.349	0.062
	Residual	199.291	184	1.083		
	Total	217.098	191			

[a] Dependent Variable: Nilai_Per_Y

[b] Predictors: (Constant), Pert_PDB_X7, Pern_Pjk_X5, Kep_Mnj_X4, Pert_Ast_X1,

[c] Strktr_Mdl_X3, Pert_Penj_X2, Tngkt_Inf_X6

According to the above table, the significance value is 0.062, F-statistic value is 2.349, and error rate is 0.05. Asset growth, sales growth, capital structure, managerial ownership, tax planning, inflation rate, and GDP growth all significantly affect a company's value, with dividend policy acting as a moderating variable in manufacturing companies registered on Indonesia Stock Exchange between 2022 and 2023. The results show

that the generated probability value of 0.062 > 0.05. The Adjusted R-squared test yielded a coefficient of determination of 0.473. This finding indicates that variables of capital structure, managerial ownership, asset growth, sales growth, tax planning, inflation rate, and GDP growth can influence the company's value by 47.3%, with other variables not included in research model influencing the remaining 52.7%.

2. MODERATED REGRESSION ANALYSIS (MRA) HYPOTHESIS TESTING

2.1 MRA Test During Covid-19

With interaction components in the regression equation, this model seeks to ascertain whether the moderating variable can affect the connection between independent and dependent variables. Following are analytical results based on test results:

Table 8. Test of variable interaction during Covid-19.

Variabel	Moderasi Variabel
INT X1*Z	0,013
INT X2*Z	0,029
INT X3*Z	0,011
INT X4*Z	0,015
INT X5*Z	0,038
INT X6*Z	0,018
INT X7*Z	0,614

The following can be tested in light of the test results above, which looked at how Managerial Ownership (X4), Asset Growth (X1), Sales Growth (X2), Capital Structure (X3), Tax Planning (X5), Inflation Rate (X6), and GDP Growth (X7) affected Company Value (Y), with Dividend Policy (Z) acting as a moderating variable.

- Examining Hypothesis No. 15 (H15). With a significance value of 0.013 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Profitability and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of profitability on company value.
- Sixteenth Hypothesis (H16) is being tested. With a significance score of 0.029 < 0.05, the findings of the interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Sales Growth and Company Value. This implies that in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of sales growth on company value.
- Examining Hypothesis No. 17 (H17). With a significance value of 0.011 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Capital Structure and Company Value. This implies that in manufacturing businesses registered on the Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of capital structure on company value.
- Eighteenth Hypothesis (H18) is being tested. With a significance value of 0.015 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Managerial Ownership and Company Value. This implies that in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of managerial ownership on company value.
- Nineteenth Hypothesis (H19) is being tested. With a significance result of 0.038 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Tax Planning and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock

Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of tax planning on company value.

- Examining Hypothesis H20, twentieth hypothesis. With a significance value of 0.018 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Inflation Rate and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, dividend policy can mitigate impact of inflation on company value.
- Examining the 21st hypothesis (H21). With a significance level of 0.614 > 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits an interaction between GDP Growth and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange under COVID-19, specifically in 2020–2021, impact of GDP Growth on Company Value cannot be mitigated by Dividend Policy.

2.2 MRA Test After Covid-19

The following table displays the Moderated Regression Analysis (MRA) test results during COVID-19:

Table 9. Test of variable interaction after Covid-19.

Variabel	Moderasi Variabel
INT X1*Z	0,048
INT X2*Z	0,037
INT X3*Z	0,897
INT X4*Z	0,104
INT X5*Z	0,022
INT X6*Z	0,070
INT X7*Z	0,123

- The Twenty-Second Hypothesis (H22) is being tested. With a significance score of 0.048 < 0.05, the findings of the interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Profitability and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, dividend policy can mitigate impact of profitability on company value.
- Examining Hypothesis Twenty-Third (H23). With a significance result of 0.037 < 0.05, the findings of the interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Sales Growth and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, dividend policy can mitigate impact of sales growth on company value.
- The twenty-fourth hypothesis (H24) is being tested. With a significance level of 0.897 > 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits an interaction between Capital Structure and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, dividend policy is unable to mitigate impact of capital structure on company value.
- Twenty-Fifth Hypothesis (H25) is being tested. With a significance level of 0.104 > 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits an interaction between Managerial Ownership and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, impact of managerial ownership on company value cannot be mitigated by dividend policy.
- Examining 26th hypothesis (H26). With a significance value of 0.022 < 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits a significant interaction between Tax Planning and Company Value. This implies that in manufacturing businesses registered on Indonesia Stock Exchange

following COVID-19, specifically in 2022–2023, dividend policy can mitigate impact of tax planning on company value.

- Examining 27th hypothesis (H27). With a significance level of 0.070 > 0.05, findings of the interaction test reveal that Dividend Policy, as a moderating variable, exhibits an interaction between the Inflation Rate and Company Value. This implies that, for manufacturing businesses registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, dividend policy is unable to mitigate impact of inflation on company value.
- Examining 28th Hypothesis (H28). With a significance level of 0.123 > 0.05, findings of interaction test reveal that Dividend Policy, as a moderating variable, exhibits an interaction between GDP Growth and Company Value. This implies that in manufacturing companies registered on Indonesia Stock Exchange after COVID-19, specifically in 2022–2023, dividend policy is unable to mitigate impact of GDP growth on company value.

3. DISCUSSION OF RESULTS

The significant effect of asset growth and sales growth can be explained by signaling theory, where higher growth indicates better future prospects, attracting investors and increasing firm value. In contrast, the insignificant effect of GDP growth may be due to macroeconomic instability during and after the COVID-19 period, reducing its direct influence on firm-level performance. Similarly, managerial ownership may not significantly affect firm value due to limited ownership proportions or weak governance structures in the observed firms.

4. DISCUSSION OF T-TEST

- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Asset Growth (X1) affects Company Value (Y). With a significance (Sig.) value of 0.004 and a t-value of 1.870 for the independent variable Asset Growth, the t-test findings indicate that Ha1 is accepted. This finding is in line with other research that is used which found that asset growth influences the value of a company.
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Sales Growth (X2) affects Company Value (Y). With a t-value of 0.899 and a significance (Sig.) value of 0.037 for the independent variable Sales Growth, the t-test findings indicate that Ha1 is accepted. Previous research has also produced findings that are comparable.
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Capital Structure (X3) affects Company Value (Y). With a t-value of 2.911 and a significance (Sig.) value of 0.041 for the independent variable Capital Structure, the t-test findings indicate that Ha1 is accepted. This is in line with trade-off hypothesis, which states that using debt increases the number of operating profits that investors receive from the business. Therefore, a company's worth and stock price increase as it employs more debt.
- The study's incomplete testing results indicate that, in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, particularly in years 2020–202, Managerial Ownership (X4) affects Company Value (Y).
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Tax Planning (X5) has no effect on Company Value (Y). With a significance (Sig.) value of 0.113 and a t-value of -1.595 for the independent variable Tax Planning, t-test results indicate that Ha1 is rejected. Findings of this study demonstrate that investors only consider a firm's worth when making investment decisions, hence the degree of tax planning done by the manager of the company does not always influence their decision. This study aligns with research conducted previous works.
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Inflation Rate (X6) affects Company Value (Y). With a t-value of 0.621 and a significance (Sig.) value of 0.021 for the independent variable inflation rate, the t-test results indicate that Ha1 is accepted. This is consistent with research by research in literature which

show that investors should purchase shares in the manufacturing sector as inflation rises because the firm value in this area will likewise rise.

- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, GDP Growth (X7) has no bearing on Company Value (Y). With a significance (Sig.) value of 0.408 and a t-value of -0.831 for the independent variable GDP Growth, the t-test results indicate that Ha1 is rejected. Consequently, it can be said that the GDP level has no bearing on the value of a firm and refutes the claim that as economic growth rises, so will corporately value. This research aligns with the findings of T. C.
- The study's incomplete testing results indicate that, in manufacturing companies registered on Indonesia Stock Exchange following COVID-19, particularly in 2022–2023, Asset Growth (X8) affects Company Value (Y). With a t-value of 1.907 and a significance (Sig.) value of 0.036 for the independent variable Asset Growth, the t-test results indicate that Ha1 is accepted. Findings of this study are in line with those of studies conducted by previous works, which discovered that asset expansion significantly increases value of a company.
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, Sales Growth (X9) affects Company Value (Y). With a t-value of 0.812 and a significance (Sig.) value of 0.027 for the independent variable Sales Growth, the t-test findings indicate that Ha1 is accepted. The findings of this study support those of earlier research by previous works which found that sales growth significantly increases the value of a company.
- The study's incomplete testing results indicate that, in manufacturing companies registered on Indonesia Stock Exchange following COVID-19, particularly in the years 2022–2023, Capital Structure (X10) affects Company Value (Y). With a t-value of 3.428 and a significance (Sig.) value of 0.017 for the independent variable Capital Structure, the t-test results indicate that Ha1 is accepted. This study's findings are consistent with those of previous works, who both highlight the numerous advantages of using debt in capital structure. The Trade-off Theory makes this clear by explaining that when a company uses debt, the investor market receives a larger portion of its operating income. Consequently, a company's value and stock price increase as it employs more debt. According to the trade-off theory, each new debt will raise the value of the company if the capital structure is below the ideal level.
- Based on the partial testing results in this study, it shows that Managerial Ownership (X11) does not influence Company Value (Y) in manufacturing companies registered on Indonesia Stock Exchange after Covid-19, specifically in the years 2022-2023. The t-test results for the independent variable Managerial Ownership show a t-value of 0.410 and a significance (Sig.) value of 0.683, meaning that Ha1 is rejected, which is inconsistent with the agency theory perspective. Agency theory explains that management, as the agent trusted by the shareholders or principal to manage the company, aims to benefit the principal. However, agents do not always act according to the principal's desires, as they tend to engage in opportunistic behavior that can lead to conflicts of interest and agency problems. Increasing managerial ownership is considered one way to reduce agency problems. Management will act as both an agent and a principal, thus having the same objectives. Management will be more careful in decision-making because they will bear the consequences of those decisions. Therefore, higher managerial ownership will increase company value.
- The study's incomplete testing results indicate that, especially in 2022–2023, Tax Planning (X12) affects Company Value (Y) in industrial firms that went public on the Indonesia Stock Exchange after COVID-19. With a t-value of 1.567 and a significance (Sig.) value of 0.021 for the independent variable Tax Planning, the t-test results indicate that Ha1 is accepted. Investors want a high return on their investment, which is the dividend distribution calculated from the company's profits. Management can reduce the tax burden paid by conducting tax planning. The steps taken in tax planning involve considering expenses that can be reduced in the fiscal tax calculation and utilizing existing regulations to achieve maximum profits. Maximized profits can increase company value.
- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, the Inflation Rate (X13) has no effect on

Company Value (Y). With a significance (Sig.) value of 0.760 and a t-value of 0.306 for the independent variable inflation rate, the t-test results indicate that Ha1 is rejected. This is in line with studies in the literature. This is due to the fact that inflation is a constant occurrence, thus businesses need to have plans in place to deal with it.

- The study's incomplete testing results indicate that, for manufacturing companies registered on Indonesia Stock Exchange following COVID-19, specifically in 2022–2023, GDP Growth (X14) has no effect on Company Value (Y). With a significance (Sig.) value of 0.840 and a t-value of -0.202 for the independent variable GDP Growth, the t-test results indicate that Ha1 is rejected. Therefore, company value is unaffected by changes in the gross domestic product. As a result, people are not always encouraged to participate in the capital market by the amount of national income per capita, which represents the welfare of society. Previous studies.

5. DISCUSSION OF MRA TESTING DURING COVID-19

- The study's partial testing results showed that, among manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Asset Growth (X15) influences Company Value (Y), with Dividend Policy acting as a moderating variable. The t-test results for the independent variable Asset Growth showed a t-value of 1.341 and a significance (Sig.) value of 0.013, indicating that Ha1 is accepted. Furthermore, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.740 to 2.303 after the MRA test. This indicates that the dividend policy might act as a moderator or strengthen the effect of Asset Growth on Company Value. Lastly, study revealed that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X1*Z value of 0.013, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X1*Z. This signifies a pseudo-moderating variable, indicating that the moderating variable (Dividend Policy) interacts with the independent variable (Asset Growth) while also acting as a predictor (independent variable).
- The study's partial testing results demonstrated that, in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in the years 2020–2021, Sales Growth (X16) influences Company Value (Y), with Dividend Policy acting as a moderating variable. The t-test results for the independent variable Sales Growth showed t-value is 1.442 and significance (Sig.) value of 0.029, indicating that Ha1 is accepted. Additionally, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.458 to 1.435 after the MRA test. This signifies that the dividend policy might act as a moderator or strengthen effect of Sales Growth on Company Value. Lastly, study found that type of moderation obtained is Quasi Moderation. This is evident from the Inter X2*Z value of 0.029, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X2*Z. This indicates a pseudo-moderating variable, showing that the moderating variable (Dividend Policy) interacts with the independent variable (Sales Growth) while also acting as a predictor (independent variable).
- The study's partial testing results showed that, among manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Capital Structure (X17) influences Company Value (Y), with Dividend Policy acting as a moderating variable. T-test results for the independent variable Capital Structure showed a t-value is1.600 and a significance (Sig.) value of 0.011, indicating that Ha1 is accepted. However, during this period, the β Unstandardized Coefficient before the MRA test decreased from 0.538 to 0.122 after the MRA test, suggesting that the dividend policy is unable to moderate or weaken influence of Capital Structure on Company Value. Lastly, study revealed that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X3*Z value of 0.011, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X3*Z. This signifies a pseudo-moderating variable, indicating that the moderating variable (Dividend Policy) interacts with the independent variable (Capital Structure) while also acting as a predictor (independent variable).
- The study's partial testing results showed that, in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, Managerial Ownership (X18) influences Company Value (Y), with Dividend Policy acting as a moderating variable. The t-test results for the independent variable Managerial Ownership showed t-value is 1.979 and a significance (Sig.) value of 0.015, indicating

that Ha1 is accepted. Furthermore, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.108 to 1.607 after the MRA test. This indicates that the dividend policy might act as a moderator or strengthen the influence of Managerial Ownership on Company Value. Lastly, study revealed that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X4*Z value of 0.015, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X4*Z. This signifies a pseudo-moderating variable, indicating that the moderating variable (Dividend Policy) interacts with the independent variable (Managerial Ownership) while also acting as a predictor (independent variable).

- The study's partial testing results demonstrated that, in manufacturing companies registered on Indonesia Stock Exchange during COVID-19, notably in the years 2020–2021, Tax Planning (X19) influences Company Value (Y), with Dividend Policy acting as a moderating variable. T-test results for the independent variable Tax Planning showed t-value is 1.720 and a significance (Sig.) value of 0.038, indicating that Ha1 is accepted. Additionally, during this period, the β Unstandardized Coefficient before the MRA test increased from -1.190 to 3.493 after the MRA test. This signifies that the dividend policy might act as a moderator or strengthen influence of Tax Planning on Company Value. Lastly, study found that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X5*Z value of 0.038, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X5*Z. This indicates a pseudo-moderating variable, showing that the moderating variable (Dividend Policy) interacts with the independent variable (Tax Planning) while also acting as a predictor (independent variable).
- The study's partial testing results showed that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, the Inflation Rate (X20) influences Company Value (Y), with Dividend Policy acting as a moderating variable. T-test results for the independent variable Inflation Rate showed t-value of 2.395 and a significance (Sig.) value of 0.018, indicating that Ha1 is accepted. Furthermore, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.351 to 0.448 after the MRA test. This indicates that the dividend policy might act as a moderator or strengthen influence of Inflation Rate on Company Value. Lastly, study revealed that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X6*Z value of 0.018, which is equally significant with the value of variable Z (moderating variable) at 0.027, meaning Sign Z = Sign Inter X6*Z. This signifies a pseudo-moderating variable, indicating that the moderating variable (Dividend Policy) interacts with the independent variable (Inflation Rate) while also acting as a predictor (independent variable).
- The study's partial testing results showed that, for manufacturing companies registered on Indonesia Stock Exchange during COVID-19, specifically in 2020–2021, GDP Growth (X21) has no effect on Company Value (Y) when Dividend Policy is used as a moderating variable. T-test results for the independent variable GDP Growth showed t-value is -2.495 and a significance (Sig.) value of 0.614, indicating that Ha1 is rejected. Additionally, during this period, the β Unstandardized Coefficient before the MRA test decreased from -38.876 to -86.449 after the MRA test, suggesting that Dividend Policy cannot moderate or weaken influence of GDP Growth on Company Value. Lastly, the study revealed that the type of moderation obtained is Predictor Moderation. This is evident from the Inter X7*Z value not being significant at 0.614, while the value of variable Z (moderating variable) is significant at 0.027, meaning Sign Z ≠ Sign Inter X7*Z. This signifies a Predictor Moderation, indicating that the moderating variable (Dividend Policy) only serves as a predictor (independent variable) in formed model of relationship.

6.1 Discussion of MRA Testing After Covid-19

- The study's partial testing results showed that, in manufacturing companies registered on Indonesia Stock Exchange under COVID-19, specifically in the years 2022–2023, Asset Growth (X22) influences Company Value (Y), with Dividend Policy acting as a moderating variable. Ha1 is accepted, according to the t-test findings for the independent variable Asset Growth, which had a t-value of 1.602 and a significance (Sig.) value of 0.048. Furthermore, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.231 to 1.639 after the MRA test, indicating that the dividend policy might act as a moderator or strengthen influence of Asset Growth on Company Value. Lastly, study revealed that type of moderation

obtained is Quasi Moderation. This is evident from the Inter X1Z value of 0.013, which is equally significant with the value of variable Z (moderating variable) at 0.003, meaning Sign Z = Sign Inter X1Z. This indicates a pseudo-moderating variable, showing that the moderating variable (Dividend Policy) interacts with the independent variable (Asset Growth) while also acting as a predictor (independent variable).

- The study's partial testing results demonstrated that, in manufacturing companies registered on Indonesia Stock Exchange, Sales Growth (X23) influences Company Value (Y), with Dividend Policy acting as a moderating variable after Covid-19, specifically in the years 2022-2023. T-test results for independent variable Sales Growth showed a t-value of 1.442 and a significance (Sig.) value of 0.029, indicating that Ha1 is accepted. Additionally, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.200 to 0.256 after the MRA test, indicating that the dividend policy might act as a moderator or strengthen influence of Sales Growth on Company Value. Lastly, study found that type of moderation obtained is Quasi Moderation. This is evident from the Inter X2Z value of 0.029, which is equally significant with the value of variable Z (moderating variable) at 0.003, meaning Sign Z = Sign Inter X2Z. This indicates a pseudo-moderating variable, showing that the moderating variable (Dividend Policy) interacts with the independent variable (Sales Growth) while also acting as a predictor (independent variable).
- The study's incomplete testing results showed that, among manufacturing companies registered on Indonesia Stock Exchange, Dividend Policy acts as a moderating variable, while Capital Structure (X24) had no effect on Company Value (Y) after Covid-19, specifically in the years 2022-2023. T-test results for independent variable Capital Structure showed a t-value of 0.130 and a significance (Sig.) value of 0.897, indicating that Ha1 is rejected. Additionally, during this period, the β Unstandardized Coefficient before the MRA test decreased from 0.553 to 0.465 after the MRA test, suggesting that the dividend policy is unable to moderate or weaken influence of Capital Structure on Company Value. Lastly, study revealed that the type of moderation obtained is Predictor Moderation. This is evident from the Inter X3Z value not being significant at 0.104, while the value of variable Z (moderating variable) is significant at 0.003, meaning Sign Z ≠ Sign Inter X3Z. This indicates a Predictor Moderation, showing that the moderating variable (Dividend Policy) only acts as a predictor (independent variable) in formed model of relationship.
- The study's partial testing results demonstrated that, in manufacturing companies registered on Indonesia Stock Exchange, Managerial Ownership (X25) has no effect on Company Value (Y), with Dividend Policy acting as a moderating variable after Covid-19, specifically in the years 2022-2023. The t-test results for the independent variable Managerial Ownership showed a t-value of 1.633 and a significance (Sig.) value of 0.104, indicating that Ha1 is rejected. Additionally, during this period, the β Unstandardized Coefficient before the MRA test decreased from 0.180 to 0.050 after the MRA test, suggesting that Dividend Policy cannot moderate or weaken the influence of Managerial Ownership on Company Value. Lastly, the study revealed that the type of moderation obtained is Predictor Moderation. This is evident from the Inter X4Z value not being significant at 0.104, while the value of variable Z (moderating variable) is significant at 0.003, meaning Sign Z ≠ Sign Inter X4Z. This indicates a Predictor Moderation, showing that the moderating variable (Dividend Policy) only acts as a predictor (independent variable) in the formed relationship model.
- The study's partial testing results showed that, among manufacturing companies registered on Indonesia Stock Exchange, Dividend Policy acts as a moderating variable in the relationship between Tax Planning (X26) and Company Value (Y) after Covid-19, specifically in the years 2022-2023. The t-test results for the independent variable Tax Planning showed a t-value of 1.970 and a significance (Sig.) value of 0.022, indicating that Ha1 is accepted. Furthermore, during this period, the β Unstandardized Coefficient before the MRA test increased from 0.327 to 1.902 after the MRA test, indicating that Dividend Policy can moderate or strengthen the influence of Tax Planning on Company Value. Lastly, the study revealed that the type of moderation obtained is Quasi Moderation. This is evident from the Inter X5Z value of 0.022, which is equally significant with the value of variable Z (moderating variable) at 0.003, meaning Sign Z = Sign Inter X5Z. This indicates a pseudo-moderating variable, showing that the moderating variable (Dividend Policy) interacts with the independent variable (Tax Planning) while also acting as a predictor (independent variable).
- The study's partial testing results demonstrated that, in manufacturing companies registered on Indonesia Stock Exchange, Dividend Policy acts as a moderating variable, and that Inflation Rate (X27) had no effect

on Company Value (Y) after Covid-19, specifically in the years 2022-2023. The t-test results for the independent variable Inflation Rate showed a t-value of 1.826 and a significance (Sig.) value of 0.070, indicating that Ha1 is rejected. Additionally, during this period, the β Unstandardized Coefficient before the MRA test decreased from 0.448 to -2.590 after the MRA test, suggesting that Dividend Policy cannot moderate or weaken the influence of Inflation Rate on Company Value. Lastly, the study revealed that the type of moderation obtained is Predictor Moderation. This is evident from the Inter X6Z value not being significant at 0.070, while the value of variable Z (moderating variable) is significant at 0.003, meaning Sign Z ≠ Sign Inter X6Z. This indicates a Predictor Moderation, showing that the moderating variable (Dividend Policy) only acts as a predictor (independent variable) in the formed relationship model.

- The study's incomplete testing results showed that, for manufacturing companies registered on Indonesia Stock Exchange, GDP Growth (X28) has no effect on Company Value (Y), with Dividend Policy acting as a moderating variable after Covid-19, specifically in the years 2022-2023. The t-test results for the independent variable GDP Growth showed a t-value of -1.551 and a significance (Sig.) value of 0.123, indicating that Ha1 is rejected. Additionally, during this period, the β Unstandardized Coefficient before the MRA test decreased from -1.136 to -9.494 after the MRA test, suggesting that Dividend Policy cannot moderate or weaken the influence of GDP Growth on Company Value. Lastly, the study revealed that the type of moderation obtained is Predictor Moderation. This is evident from the Inter X7Z value not being significant at 0.123, while the value of variable Z (moderating variable) is significant at 0.003, meaning Sign Z ≠ Sign Inter X7Z. This indicates a Predictor Moderation, showing that the moderating variable (Dividend Policy) only acts as a predictor (independent variable) in the formed relationship model.

V. CONCLUSION

This study contributes to the literature by examining the determinants of firm value during and after the COVID-19 pandemic, while highlighting the moderating role of dividend policy in an emerging market context. The results show that during the COVID-19 period, firm value of manufacturing companies listed on the Indonesia Stock Exchange is significantly influenced by asset growth, sales growth, capital structure, managerial ownership, and inflation, while tax planning and GDP growth are not significant. In the post-COVID-19 period, asset growth, sales growth, capital structure, and tax planning remain significant determinants, whereas managerial ownership, inflation, and GDP growth are not. Regarding the moderating effect, dividend policy plays a quasi-moderating role in several relationships. It strengthens the effects of asset growth, sales growth, and tax planning on firm value in both periods, while showing limited or no moderating effect on capital structure, managerial ownership, inflation, and GDP growth across the two periods. The study is limited to manufacturing firms listed on the Indonesia Stock Exchange and relies on secondary data, which may limit generalizability and depth. Future research is encouraged to expand to other sectors and incorporate mixed-method approaches to capture more comprehensive insights.

Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

Conceptualization, Y.; A. A.; and Z.; methodology, Y. and A. A.; software, Z.; validation, A. A. and Z.; formal analysis, Y.; resources, A. A. and Z.; data curation, Y. and Z.; writing—original draft preparation, Y.; writing—review and editing, A. A.; visualization, Z.; supervision, Y.; project administration, Z.; funding acquisition, A. A. All authors have read and agreed to the published version of the manuscript. All authors contributed equally to the development and planning of the study.

Funding Statement

This study has no external funding.

Data Availability Statement

Data are available from the authors upon request.

Acknowledgments

Not applicable.

REFERENCES

1. Breunig, R., Deutscher, N., & Hamilton, S. (**2024**). Rounded up: Using round numbers to identify tax evasion. *Journal of Public Economics, 238*, 105195.
2. Carnicer-Pont, D., Fu, M., Castellano, Y., Tigova, O., Driezen, P., Quah, A. C. K., Kaai, S. C., Soriano, J. B., Vardavas, C. I., Fong, G. T., & Fernández, E. (**2024**). Incidence and determinants of COVID-19 among people who smoke (2018–2021): Findings from the ITC EUREST-PLUS Spain surveys. *Archivos de Bronconeumologia*.
3. Cheratian, I., Goltabar, S., Gholipour, H. F., & Farzanegan, M. R. (**2024**). Finance and sales growth at the firm level in Iran: Does type of spending matter? *Research in International Business and Finance, 67*, 102142.
4. Maskari, S. A. (**2025**). Navigating remote learning: A study on student perceptions during times of uncertainty. *Qubahan Academic Journal*, *5*(1), 810-823.
5. Yahya, A., Masiha, R. Y., Mercado, M. C. D., & Bhatti, M. S. (**2025**). Artificial Intelligence–Augmented Statistical Inference: Integrating Machine Learning with Classical Estimation and Hypothesis Testing. *Qubahan Techno Journal*, *4*(4), 44-56.
6. Hassan, A. M., Negash, Y. T., & Hanum, F. (**2024**). An assessment of barriers to digital transformation in circular construction: An application of stakeholder theory. *Ain Shams Engineering Journal, 15*(7), 102787.
7. Zeebaree, M., Sattar, S., & Shukri, N. (**2020**). Innovative Technologies Impact on Socio-economic, Health, and Educational Activities during COVID-19 Era. *Prensa Med Argent S*, *3*, 2-7.
8. Zebari, D. A., Sulaiman, D. M., Sadiq, S. S., Zebari, N. A., & Salih, M. S. (**2022**). Automated Detection of Covid-19 from X-ray Using SVM. In *2022 4th International Conference on Advanced Science and Engineering (ICOASE)* (pp. 130-135). IEEE.
9. Khan, M. A. S., Dalal, K., Hasan, M., Haque, M. M. A., Nusrat-E-Mozid, Hossian, M., Rahman, T., Maliha, R., Mutsuddi, A., Rashid, M. U., Hossain, M. A., Nabi, M. H., & Hawlader, M. D. H. (**2024**). The impact of comorbidity on the quality of life of people who recovered from COVID-19 in Bangladesh. *IJID Regions, 11*.
10. Li, S., Li, T., Yang, J., & Zhao, S. (**2021**). Tobin's q and corporate investment with a pandemic shock. *Economics Letters, 209*, 110141.
11. Liu, T., Abdelbaky, A., Elamer, A. A., & Elmahgoub, M. (**2023**). Real earnings management and ESG disclosure in emerging markets: The moderating effect of managerial ownership from a social norm perspective. *Heliyon, 9*(12), e22832.
12. Tang, Y., Yan, Y., Mao, J., Ni, J., & Qing, H. (**2023**). Intangible assets and firm performance: The relative effects of recognized and unrecognized assets. *Ageing Research Reviews*, 101865.
13. Rabinovich, J. (**2023**). Tangible and intangible investments and sales growth of US firms. *Structural Change and Economic Dynamics, 66*, 200–212.
14. Salih, M. S., Zebari, N. A., & Doski, H. (**2025**). A Hybrid LBP and CNN-Based Approach for COVID-19 Detection Using Chest X-Ray Images. *Artificial Intelligence & Robotics Development Journal*, 396-408.
15. Medina, Jeanneret, M., Baudet, C., & Lebraty, J. F. (**2024**). Blockchain and agency theory in supply chain management: A question of trust. *International Journal of Information Management, 75*, 102747.
16. Rukhsar, S., Awan, M. J., Naseem, U., et al. (**2023**). Artificial intelligence based sentence level sentiment analysis of COVID-19. *Computer Systems Science and Engineering*, *47*(1), 791-807.
17. Ibrahim, D. A., Zebari, D. A., Mohammed, H. J., & Mohammed, M. A. (**2022**). Effective hybrid deep learning model for COVID-19 patterns identification using CT images. *Expert Systems*, *39*(10), e13010.
18. Nikmah, C., & Hung, R. J. (**2024**). The impact of ASEAN economic community, firm characteristics and macroeconomics on firm performance and firm value: An investigation of Shariah-compliant firms in Indonesia. *Heliyon, 10*(11), e32740.
19. Sprokholta, A., Nieuwmeijera, L., Brandb, N., & Weerdb, I. van de. (**2024**). The Multimodal Business Activity Model: A tool to classify business activities to support decision-making in digital transformation. *Procedia Computer Science, 239*, 275–283.
20. Pitol, M. N. S., Ahmed, S., Kumar, H., Islam, M. A., Dey, T., Bachar, B. K., & Ghosh, R. K. (**2022**). The effects of the COVID-19 on our daily lives in Bangladesh. *Qubahan Academic Journal*, *2*(1).
21. Kapoor, N. R., Kumar, A., Kumar, A., et al. (**2022**). Event-specific transmission forecasting of SARS-CoV-2 in a mixed-mode ventilated office room using an ANN. *International Journal of Environmental Research and Public Health*, *19*(24), 16862.