

# THE EFFECT OF OWNERSHIP STRUCTURE ON FIRM VALUE WITH PROFITABILITY AS AN INTERVENING VARIABLE (RESEARCH PERIOD 2020-2022)

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**Abstract.** This study quantitatively examines the effect of ownership structure (including managerial ownership, institutional ownership, and foreign ownership) on firm value through profitability. The samples in this study include manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2020-2022, selected through purposive sampling, and the secondary data involve the companies' financial reports. The results of the path analysis using two equation models show that, simultaneously, managerial ownership, institutional ownership, and foreign ownership affect firm value; partially, managerial ownership, institutional ownership, and profitability affect firm value; and foreign ownership does not affect firm value. In addition, the study reveals that the profitability is not able to mediate the effect of managerial ownership, institutional ownership, and foreign ownership on firm value.

**Keywords:** Ownership Structure; Firm Value; Profitability; Managerial Ownership; Institutional Ownership; Foreign Ownership

## I. INTRODUCTION

A company is a business entity that conducts business by processing economic resources to produce outputs in order to obtain maximum profit. The profits obtained can be used by the company to maintain its business and achieve competitive advantage. Hill & Jones (2009: 84-86) argue that the higher the profitability of a company, the more superior the company is compared to other companies in similar businesses. Therefore, profitability is often used in decision-making in a company. In addition, profit or profit is needed for various interested parties, one of which is investors and potential investors. Investors are one of the parties that can help develop the company through funding. Investors use profit as a benchmark in assessing company performance. This is in line with what was conveyed by Sunardi (2019) that profit or profitability is a matrix used to measure business performance. For potential investors, profitability is used as a reference in deciding whether to invest in the company or not.

Companies that decide to enter the capital market aim to obtain a larger source of funding and attract potential investors. One of these funding sources can be in the form of selling shares. The share price itself can be said to be a reflection of the company's value. According to Rasyid (2015) company value is an investor's perception of the level of success of a company which is closely related to the company's stock price. A high stock market price can indicate that the market or the public trusts the company very much. This is because the company value can show the company's performance in the current year as well as to predict

future performance. But on the other hand, if the stock price decreases, investors can withdraw their funding so that this can harm the company.

Based on the data described in IDX Yearly Statistic (2020), it can be seen that stock prices in May 2019 - January 2020 fluctuated. In February 2020, the share price experienced a sharp decline. This lasted until March 2020. This phenomenon occurred due to the Covid-19 pandemic. The decline in stock Trading Volume occurred from February 2020 to the following months.

Based on WHO data, Indonesia is the Southeast Asian country that is ranked first with the most cases of people exposed to Covid-19, which amounted to 4,369,361 until February 2022. In addition, cases of death due to Covid-19 in Indonesia are the highest among Southeast Asian countries, totaling 144,348 people until February 2022. This has a huge impact on companies in various sectors in Indonesia. A consecutive decline in sales occurred.

In March 2020, the performance of the country's manufacturing industry began to experience a significant decline in performance. This was marked by the successive weakening of the Manufacturing PMI (Purchasing Manager's Index) at the level of 51.9 in February 2020; 45.3 in March 2020; and 27.5 in April 2020. This fact is reinforced by the government's statement in April 2020 through the Ministry of Industry which stated that several manufacturing sectors experienced a decrease in production capacity of up to 50 percent, with the exception of the pharmaceutical and medical device sectors. The decline in production capacity was caused and influenced by several factors including reduced demand which led to factory closures and delayed delivery of goods from suppliers. This puts pressure on the supply chain and creates cash flow constraints. Furthermore, this will have an impact on the company's stock price (Arthamevia et al., 2021; Darmayanti et al., 2021).

One of the impacts of the Covid-19 pandemic is the imposition of lockdowns that severely limit the activities of companies and communities to prevent the spread of the virus. Some companies were able to bounce back after a drastic decline due to the pandemic. However, many companies are still down. The higher the uncertain conditions due to the pandemic, the company requires solutions and accuracy of decision making that can be done by managers as the main person responsible for the company's operational activities. Strategic decisions are needed that do not favor certain parties and avoid opportunistic actions. This means that companies need supervision of strategic decisions to ensure that there are no decisions that deviate from company goals, such as earnings management that may be carried out by managers to achieve profit targets in a company. The cost of minimizing agency problems is very expensive. There is one way to conduct supervision by minimizing agency costs, namely through the use of the role of ownership structure. The share ownership structure can affect how an organization runs, which in turn affects how well the organization achieves the goals it has set. Therefore, ownership structure plays a very important role in dealing with the crisis caused by the pandemic.

Based on the explanation above, it can be seen that company value is a very useful benchmark for various interested parties so it really needs to be considered. There are several previous studies that discuss the relationship between ownership structure and firm value. The research used as a reference is the research of Agustina et al. (2017) and Nurkhin et al. (2017). Nurkhin et al. (2017) examines the relationship between ownership structure which includes managerial ownership and institutional ownership of firm value with profitability as a mediating variable. Agustina et al. (2017) conducted research related to the effect of institutional

ownership and public ownership on firm value using the mediating variable in the form of social responsibility disclosure.

Based on previous research, researchers found research gaps and limitations, namely many studies that only use institutional ownership and managerial ownership to represent the ownership structure. In research conducted by Agustina et al. (2017) mentioned the limitation of research is the use of ownership structures that are less varied. Future research is expected to add other ownership structures such as managerial ownership, foreign ownership, and domestic ownership. According to Agustina et al. (2017) each ownership has a different role. Then, the limitations of the research of Nurkhin et al. (2017) includes a relatively narrow sample, namely the consumer goods manufacturing industry. Future research is recommended to expand the sample and use the latest data and develop multiple regression analysis techniques with SEM analysis or other models. Based on these suggestions, the researcher decided to use novelty in the form of additional independent variables, namely foreign ownership. Foreign ownership is able to monitor agency problems that arise within the company. Foreign capital owners will usually recommend board members who are also foreigners to oversee the company's operations. In addition, foreign investors can put pressure on local companies to implement and maintain good, transparent, and stable corporate governance standards and force them to present complete and sustainable information so that it will add value to the company in the long run (Soleha & Isnalita, 2022).

In this study, the independent variables consist of managerial ownership, institutional ownership, and foreign ownership while the dependent variable uses firm value and profitability as a mediator variable. Firm value is measured using Tobin's Q because it is able to reflect effective stock price information by involving all elements such as assets, liabilities, and share capital of the company. Furthermore, profitability is measured using Return on Asset (ROA) because this measurement is able to efficiently measure the use of company assets to report total returns to all investors and generate profits. Furthermore, ownership structure is sought by dividing the proportion of share ownership divided by the number of shares outstanding for the period.

This research is expected to contribute both from a theoretical and practical perspective. From a theoretical point of view, research is expected to contribute to the development of accounting science, especially in the application of agency theory and signal theory relating to factors that affect firm value. The contribution of research from a practical perspective is that it can help investors or creditors in considering whether to invest or provide capital to the company in its current condition and assist company management in deciding policies by paying attention to the determinants that affect firm value.

Based on the explanation above, this study aims to test and analyze: (1) the effect of ownership structure on profitability; (2) the effect of ownership structure on firm value; and (3) the role of profitability as a mediator of the effect of ownership structure on firm value.

## II. LITERATURE REVIEW

### A. Agency Theory

Agency theory or agency relationship (Jensen & Meckling, 1976) is a relationship where the principal delegates authority to the agent to take care of all operations within the company. In this case, the principal is the shareholder while the agent is the manager. Shareholders entrust their investment to be managed by managers and expect a return on that investment. As with investors, managers also have their own goals, namely to maintain shareholder trust by

optimizing performance to provide profits. In practice, these two objectives can trigger a conflict that causes a dispute between shareholders and investors, which is usually called information asymmetry.

In this theory, managers are considered to have more and more favorable information than shareholders. Therefore, managers are obliged to report their performance in the form of financial reports that contain all information related to company operations in a transparent manner. However, it turns out that managers sometimes cannot report full transparency of their performance for certain reasons. These differences in interests can lead to expensive agent costs. To minimize these costs, an ownership structure consisting of managerial ownership, institutional ownership, foreign ownership, and other ownership structures is needed to conduct supervision to minimize the opportunistic behavior of managers.

#### *B. Signal Theory*

According to signal theory, investors can interpret and react to information from a company in various ways, causing stock price fluctuations. Positive signals from management can boost stock prices, while negative signals can cause a decline (Sigar & Kalangi, 2019). This concept, also known as signaling theory, involves actions taken by company management to communicate their perspective on the company's prospects to investors. External parties, including investors, creditors, underwriters, and other information users, do not have the same level of insight into a company's operations and future prospects as the company and its management. To overcome this information asymmetry, companies can utilize their financial statements to communicate reliable and trustworthy financial information, thereby providing clear signals to external parties regarding the company's future sustainability prospects.

#### *C. Company Value*

Firm value assessment is a measure of the performance of a business entity. Agency theory (Jensen & Meckling, 1976) states that ownership structure can affect firm performance and, in turn, firm value. Previous research conducted by Sienatra et al. (2015) proves that the ownership structure which includes managerial ownership and institutional ownership is able to maximize firm value. In line with the results of this study, research conducted by Matondang & Yustrianthe (2017) proves that simultaneously profitability, political costs, public share ownership, board of commissioners, leverage, disclosure of managerial share ownership and corporate social responsibility have an influence on firm value. Research conducted by Khairiyani (2018) also proves that ownership structure and management structure can increase firm value.

#### *D. Profitability*

Profitability is considered an important link in translating the effect of ownership structure on firm value. Previous studies (Hitt et al., 2011) emphasize that profitability can reduce the effects of agency conflicts and improve firm performance, thereby positively affecting firm value. Profitability is an indicator of the company's financial performance and has an important role as an intervening variable in the relationship between ownership structure and firm value (Nurkhin et al., 2017). Research by Nurkhin et al. (2017) also shows that the level of company profitability is significantly correlated with firm value. Companies with high levels of profitability tend to have better competitiveness and are able to provide added value to their shareholders.

#### *E. Ownership Structure and Profitability*

Based on previous research (Wida & Suartana, 2014; Wiranata & Nugrahanti 2013; Nurkhin et al., 2017) negative results were found in the relationship between managerial ownership and profitability. In the relationship between institutional ownership and profitability, the opposite relationship is found with the relationship between managerial ownership and profitability. In research conducted by Nurkhin et al., (2017) a positive relationship and a significant influence between the relationship between institutional ownership and profitability was produced. Then in research conducted by Wiranata & Nugrahanti (2013) it was also found that foreign ownership had a positive effect on profitability. Based on the description of the empirical studies above, a hypothesis can be developed as follows:

H<sub>1</sub> : Managerial ownership affects profitability

H<sub>2</sub> : Institutional ownership affects profitability

H<sub>3</sub> : Foreign ownership affects profitability

#### *F. Managerial Ownership and Company Value*

Managerial ownership is an important aspect in the context of the company's ownership structure. Share ownership by management can influence company policy and have an impact on financial performance. Several studies highlight the relationship between managerial ownership and firm value. One of them is research conducted by Sienatra et al. (2015). The implementation of higher levels of managerial ownership as a strategy to overcome agency conflicts is directly related to management's desire to improve operational efficiency and mitigate risk, which ultimately results in overall firm value growth. This increase in value is evident through an increase in the stock market price, which consequently provides favorable outcomes for managers. By utilizing salary/bonus and capital gains, managers can enjoy two streams of income. The results of this study are supported by the research of Sun et al. (2016), and Lestari et al. (2014).

However, it turns out that not only positive results can be proven, there are several studies that prove negative results on the relationship between managerial ownership and firm value. These studies include Pratama et al. (2023), Ambarwati & Stephanus (2014), Hidayah (2015), Sunardi, (2019), and Sembiring & Trisnawati (2019). From the results of this study, it can be seen that the size of managerial ownership will not affect firm value. Based on the description of these empirical studies, a hypothesis can be developed, namely:

H<sub>4</sub> : Managerial ownership affects firm value

#### *G. Institutional Ownership and Company Value*

Institutional ownership refers to the shares of a company that are owned by entities, such as pension funds, insurance companies, and financial institutions. Institutional ownership has a significant impact on company behavior and overall company value. Previous research, such as that conducted by Wida & Suartana (2014), Sienatra et al. (2015), and Khairiyani (2018) show a positive relationship between institutional ownership and firm value. This means that the size of institutional ownership affects the value of the company which is then in line with agency theory. Based on the description of the empirical studies above, a hypothesis can be developed as follows:

H<sub>5</sub> : Institutional ownership affects firm value

#### *H. Foreign Ownership and Company Value*

Foreign ownership is a condition where entities or individuals that are not native to a country have ownership or shares in a company located in that country. This can include share ownership in companies listed on the stock exchange, direct investment in the form of branches or subsidiaries, or other forms of ownership. Previous research conducted by Khasawneh & Staytiah (2017) and Pratama et al. (2023) produced findings that foreign ownership has an influence on firm value. Based on the description of the empirical studies above, a hypothesis can be developed as follows:

H<sub>6</sub> : Foreign ownership affects firm value

#### *I. Profitability and Company Value*

The behavior of the profitability variable proven by Nurkhin et al. (2017) is in line with the principle of signal theory. Signal theory argues that companies must convey signals or indications through financial reports and non-financial information to provide understanding to external parties about the strength of the company. Profitability is one of the signals that triggers a response from the market (investors). This response is reflected in the demand for the company's shares which ultimately affects the share price. The share price acts as a measure of the company's value. Consequently, the higher the level of profitability, the impact on increasing the value of the company. The findings of this study are in line with research conducted by Tjahjono (2013), Rasyid (2015), and Sucuahi & Cambarihan (2016), which show an important and beneficial impact of profitability on firm value. Based on the description of empirical studies above, a hypothesis can be developed as follows:

H<sub>7</sub> : Profitability affects firm value

#### *J. The Mediating Role of Profitability on the Relationship Between Ownership Structure and Company Value*

Research that analyzes and examines the profitability variable as a mediating variable for the influence of ownership structure on firm value has not been found. Previously there was research (Ambarwati & Stephanus, 2014) that tested the relationship by using leverage variables and dividend policy as intervening variables. One study that uses profitability variables as mediation is research conducted by Nurkhin et al. (2017) while the profitability variable as moderation was carried out by Pratama et al. (2023). Profitability is able to mediate the relationship between institutional ownership and firm value but not the relationship between managerial ownership and firm value (Nurkhin et al., 2017). Then, based on the findings of Pratama et al. (2023) profitability is proven to be unable to weaken or strengthen the relationship between ownership structure and firm value. Based on the description of the empirical studies above, a hypothesis can be developed as follows:

H<sub>8</sub> : Profitability mediates the effect of managerial ownership on firm value

H<sub>9</sub> : Profitability mediates the effect of institutional ownership on firm value

H<sub>10</sub> : Profitability mediates the effect of foreign ownership on firm value

#### *K. Theoretical Framework*

In the continuity of a business, company value is considered an important component in the company. The majority of companies aim to maximize their company value because it is considered capable of describing the prospects of a company itself. This research is based on agency theory and signaling which is closely related to the relationship between stakeholders



and the company. This study discusses the relationship between ownership structure and firm value. The research framework is depicted in Figure 1 as follows.

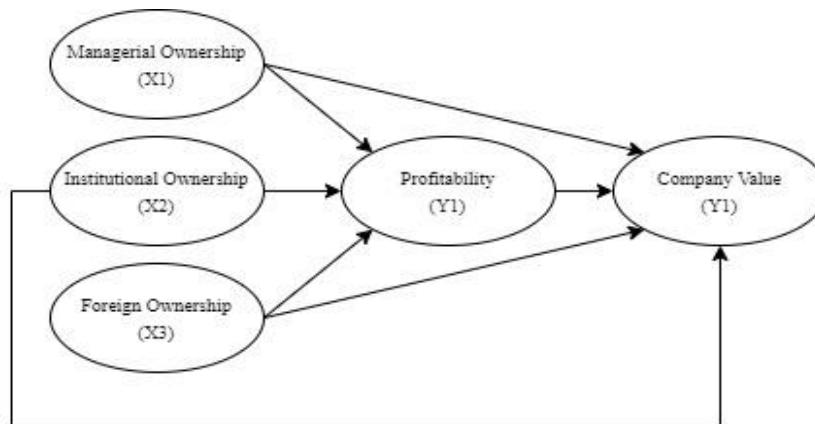


Figure 1 Theoretical Framework

### III. RESEARCH METHODOLOGY

#### A. Type of Research

The research method used in this research is quantitative method using secondary data as the source. Data in the form of audited financial statements belonging to Manufacturing Sector Companies for the period 2020-2022 obtained from the official website of the Indonesia Stock Exchange (IDX) and the company's official website.

#### B. Population and Sample

The population used is all Manufacturing Sector Companies listed on the IDX during the 2020-2022 period. The sample determination was carried out using purposive sampling technique which is shown in detail in Table 1 as follows.

Table 1 Sample Selection Process

Sample Criteria	Total
Manufacturing Sector Companies listed on the IDX in 2020-2022	165
Manufacturing sector companies that do not provide the data needed in the study	(147)
Manufacturing sector companies that use foreign currency	(4)
Number of companies sampled	14
Number of observation periods	3
Total data during the study years (2020-2022)	42

#### C. Data Collection Method

The data collection technique used in this research is documentation. The documentation method is carried out by recording and exploring the data and documents needed in the research. Data in the form of audited financial statements belonging to Manufacturing Sector Companies for the period 2020-2022 obtained from the official website of the Indonesia Stock Exchange (IDX) and the company's official website.

#### D. Variables Used

The variables used in this study include firm value as the independent variable, ownership structure (managerial ownership, institutional ownership, and foreign ownership) as the

dependent variable, and profitability as the mediating variable. The explanation related to the operational definition and measurement of variables can be seen in Table 2 below.

Table 2 Operational Definition and Variable Measurement

Variable Name	Definition	Measurement
Company Value	A number that reflects the success and potential of a company.	Tobin's Q = (market value of equity + book value of total debt) / book value of total assets  Source: Tjahjono (2013), Sunarwijaya (2017), Khairiyani (2018), Safitri & Hudaya (2023).
Managerial Ownership	Percentage of shares owned by management (commissioners and directors) who actively participate in the company's decision-making.	KM = (Total managerial ownership/total shares outstanding) x 100%  Source: Zeidan & Müllner (2015), Sienatra <i>et al.</i> (2015), Khairiyani <i>et al.</i> (2016), Khairiyani (2018)
Institutional Ownership	The percentage of shares owned by institutions such as investment companies, banks, or insurance companies.	KI = (Total institutional ownership/total shares outstanding) x 100%  Source: Zeidan & Müllner (2015), Sienatra <i>et al.</i> (2015), Khairiyani <i>et al.</i> (2016), Khairiyani (2018)
Foreign Ownership	Percentage of shares owned by foreigners (overseas).	KA = (Total foreign ownership/total shares outstanding) x 100%  Source: Ahmed & Iwasaki (2021), Soleha & Isnalita (2022)
Profitability	A measure of a company's efficiency that is used to determine the extent of profit generated by the company relative to its operating costs.	ROA = (Profit after tax/total assets) x 100%  Source: Syamsudin <i>et al.</i> (2020), Sunarwijaya (2017), Chandra <i>et al.</i> (2022)

#### E. Data Analysis Method

Data were analyzed using descriptive statistics, classical assumption tests, and path analysis with the help of the SPSS version 25 program. Descriptive statistics provide an overview or description of the data through the use of mean, standard deviation, maximum value, and minimum value. The classical assumption test is carried out before path analysis to determine the relationship between the independent variable, mediating variable, and dependent variable. The classic assumption test includes normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Based on Sunyoto (2011: 38) and Yudiatmaja (2017: 25-77), path analysis in this study uses two equation models as follows.

#### Model 1

$$Y_1 = b_1 X_{111} + b_2 X_{212} + b_3 X_{313} + E_1$$

#### Model 2



$$Y_2 = b_1 X_{121} + b_2 X_{222} + b_3 X_{323} + b_4 Y_{421} + E_2$$

Description:

$X_1$  = Managerial Ownership (KM)

$X_2$  = Institutional Ownership (KI)

$X_3$  = Foreign Ownership (KA)

$Y_1$  = Profitability (ROA)

$Y_2$  = Company Value (Tobin's Q)

$b_{1,2,3,4}$  = Regression Coefficient (Standard Coefficient Beta)

#### IV. RESULT AND DISCUSSION

##### A. Descriptive Statistic Analysis

Table 3 below presents descriptive statistics of managerial ownership (KM), institutional ownership (KI), foreign ownership (KA), profitability with return on asset (ROA) measure, and firm value with Tobin's Q measure.

Table 3 Descriptive Statistic

	<i>SUM</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
KM ( $X_1$ )	2,7201	0,0003	0,3963	0,0648	0,1062
KI ( $X_2$ )	26,4943	0,1999	0,9601	0,6308	0,1933
KA ( $X_3$ )	20,5889	0,0681	0,7882	0,4902	0,2174
ROA ( $Y_1$ )	0,8312	-0,2159	0,3636	0,0198	0,1008
Tobin's Q ( $Y_2$ )	50,3672	0,3883	4,8661	1,1992	0,8165

(Source: Data Processed using SPSS 25)

The minimum value of the manager ownership variable is 0.0003. Meanwhile, the maximum value is 0.3963 with an average value of 0.0648. The lowest value occurred at PT Astra International Tbk (ASII) in 2021 and 2022 while the highest value occurred at PT Diamond Food Indonesia Tbk (DMND) in 2020-2022. Standard deviation is known to have a value of 0.1062. This shows that the data deviation is relatively large in the sample as evidenced by the average value which is lower than the standard deviation.

It is known from the results of descriptive statistical testing that the interval range of institutional ownership variables is from 0.1999 to 0.9601. The lowest value occurred at PT Diamond Food Indonesia Tbk (DMND) in 2020-2022 while the highest value occurred at PT Panasia Indo Resources Tbk (HDTX) in 2020-2022. The average value which is greater than the standard deviation indicates that the data deviation in the research sample is relatively small.

The minimum value of foreign ownership of 0.0681 occurred at PT Duta Pertiwi Nusantara Tbk (DPNS) in 2022. Meanwhile, the maximum value of 0.7882 occurred at PT Mark Dynamic Indonesia Tbk (MARK) in 2020-2021. The average value of 0.4902 and the standard deviation of 0.2174 indicate that the data deviation in the research sample is relatively small.

Based on descriptive statistical testing, it is known that the interval range of the profitability variable ranges from -0.2159 to 0.3636. The minimum value occurred at PT Lion Metal Works Tbk (LION) in 2020 while the maximum value occurred at PT Mark Dynamic Indonesia Tbk (MARK) in 2021. The average value of 0.0198 is smaller than the standard deviation with a value of 0.1008. This shows that the data deviation in the research sample is relatively large. This average figure can also mean that the average company's ability to generate profits is quite bad during the pandemic.

The maximum value of the firm value variable of 4.8661 occurred at PT Mark Dynamic Indonesia Tbk (MARK) in 2020. Meanwhile, the minimum value of 0.3883 occurred at PT Duta Pertiwi Nusantara Tbk (DPNS) in 2020. The average company value is 1.1992 and the standard deviation is 0.8165. The average value which is greater than the standard deviation indicates that the data deviation in the research sample is relatively small. This figure shows that the average share price can still be said to be overvalued during the Covid-19 pandemic.

### B. Classical Assumption Test

#### 1. Normality Test

Normality test is a statistical test used to determine whether the data being studied has a normal distribution or not. This normality test is important to do to ensure that the observed data meets the required assumptions. In this study, the Kolmogorov-Smirnov test was used where the data was said to be normally distributed if the significance exceeded 0.05. It can be seen in Table 4, it is known that the normality test results for models 1 and 2 have the same significance results, namely 0.200 where the significance results in the research data are greater than 0.05. This proves that the observed data is normally distributed.

Table 4 Normality Test

<i>Kolmogorov-Smirnov Test</i>	Model 1	Model 2
N	42	42
Asymp. Sig (2-tailed)	0,200	0,200

(Source: Data Processed using SPSS 25)

#### 2. Multicollinearity Test

Multicollinearity test is one of the classic assumption tests used to assess whether there is a correlation between independent variables or vice versa. The multicollinearity test can be done by looking at the tolerance value and also the variance inflation factor (VIF). A data can be said to be free from multicollinearity symptoms if the tolerance value is greater than 0.10 and VIF is less than 10. In Table 5, it can be seen that the two models both have a tolerance value of more than 0.10 and VIF less than 10 so it can be said that the data observed in this study are free from multicollinearity symptoms.

Table 5 Multicollinearity Test

	Model 1		Model 2	
	<i>Collinearity Statistics</i>		<i>Collinearity Statistics</i>	
	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>
KM (X) <sub>1</sub>	0,973	1,028	0,968	1,033
KI (X) <sub>2</sub>	0,998	1,002	0,991	1,009
KA (X) <sub>3</sub>	0,972	1,029	0,958	1,044
ROA (Y) <sub>1</sub>	-	-	0,978	1,022

(Source: Data Processed using SPSS 25)

#### 3. Heteroscedasticity Test

The heteroscedasticity test is a statistical test that has the aim of testing whether in the regression model there is an inequality of variance from the residuals or not. The regression model can be said to be homoscedasticity if the variance of the residuals of an observation to another observation is the same. In this study, the heteroscedasticity test was used with the Glejser method. This method has criteria, namely if the significance result is more than 0.05, it can be said to escape the symptoms of heteroscedasticity. It can be seen in Table 6 that the

significance in models 1 and 2 has a result of more than 0.05 so that both models pass heteroscedasticity symptoms.

Table 6 Heteroscedasticity Test

	<i>Significance</i>	
	Model 1	Model 2
KM (X) <sub>1</sub>	0,317	0,771
KI (X) <sub>2</sub>	0,140	0,128
KA (X) <sub>3</sub>	0,127	0,675
ROA (Y) <sub>1</sub>	-	0,719

(Source: Data Processed Using SPSS 25)

#### 4. Autocorrelation Test

The autocorrelation test aims to assess whether there is a relationship between period  $t$  confounding errors and confounding errors in the previous period in a linear regression model. This test is performed on time series data because a value in a particular sample is strongly influenced by the value of the previous observation. One method for conducting an autocorrelation test is using the Durbin-Watson method. The basis for decision making in this method is that the Durbin-Watson result must be greater than  $dU$  (Durbin Upper) and smaller than  $4-dU$  (Yudiatmaja, 2017). Table 7 shows that models 1 and 2 have Durbin-Watson results greater than  $dU$  and less than  $4-dU$ . Therefore, both regression models can be said to be free from autocorrelation symptoms.

Table 7 Autocorrelation Test

	<i>dU</i>	<i>Durbin-Watson</i>	<i>4-dU</i>
Model 1	1,662	2,264	2,338
Model 2	1,7202	1,978	2,280

(Source: Data Processed Using SPSS 25)

#### C. Hypothesis Test Result

The analysis was conducted using path analysis using two equation models. The first equation model tests the significant effect of ownership structure on profitability. The second equation model tests the significant effect of ownership structure and profitability on firm value. Then from the two model results, the indirect effect will be sought to determine whether profitability is able to act as an intervening variable or vice versa.

Based on Table 8, it can be seen that the significant probability for Model 1 is 0.951, which is more than 0.05 ( $Sig > 0.05$ ). This shows that the independent variables including managerial ownership, institutional ownership, and foreign ownership simultaneously have no effect on profitability. In addition, when viewed from the  $F_{count}$  value of 0.114 less than  $F_{table}$  of 3.245. In contrast to Model 1, Model 2 has a significance result of 0.00 smaller than 0.05 and  $F_{count}$  (2.859) greater than  $F_{table}$  so it can be said that the independent variables of Model 2 which include managerial ownership, institutional ownership, foreign ownership, and profitability simultaneously affect firm value.

Table 8 F Test Results

	<i>F</i>	<i>Sig.</i>	Ket.
Model 1	0,114	0,951	Not Significant
Model 2	9,450	0,000	Significant

(Source: Data Processed Using SPSS 25)

Based on Table 9, it can be seen that the amount of adjusted R<sup>2</sup> Model 1 is -0.069 and Model 2 is 0.452. Model 1 shows that there is no significant effect. Model 2 shows that 45.2% of the independent variables (KM, KI, KA, ROA) are able to explain the dependent variable (Tobin's Q) while the remaining 54.8% is explained by other variables outside the model.

Table 9 Determination Coefficient

	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
Model 1	0,094	0,009	-0,069	0,10426
Model 2	0,711	0,505	0,452	0,60447

(Source: Data Processed Using SPSS 25)

Furthermore, the t test is used to determine whether all independent variables have a significant effect on the dependent variable partially. This t test aims to determine whether there is a difference between the predicted value and the value of the statistical test results. Can be seen in Table 10 which is a summary of the t test Model 1 and Model 2. Managerial ownership variables have no effect on profitability. This result can be seen from the significance of 0.696 (>0.05). From the t test results, it is found that the institutional ownership variable has no effect on profitability. This result can be seen from the significance value of 0.568 (>0.05). The foreign ownership variable has no effect on profitability. This result can be seen from the significance value of 0.984 (>0.05). The managerial ownership variable is proven to have an influence on firm value. This result can be seen from the significance value of 0.019 (<0.05). The institutional ownership variable has an effect on firm value. This result can be seen from the significance value of 0.009 (<0.05). The foreign ownership variable is proven to have no effect on firm value. This result can be seen from the significance of 0.124 (>0.05). The profitability variable has an influence on firm value. This result can be seen from the significance value of 0.000 (<0.05).

Table 10 T Test Result

Relationship	<i>Standard Coefficient Beta</i>	<i>t</i>	<i>Sig.</i>	Description
X <sub>1</sub> - Y <sub>1</sub>	-0,097	-0,394	0,696	Not Significant
X <sub>2</sub> - Y <sub>1</sub>	-0,143	-0,576	0,568	Not Significant
X <sub>3</sub> - Y <sub>1</sub>	0,003	0,020	0,984	Not Significant
X <sub>1</sub> - Y <sub>2</sub>	0,431	2,445	0,019	Significant
X <sub>2</sub> - Y <sub>2</sub>	0,494	2,761	0,009	Significant
X <sub>3</sub> - Y <sub>2</sub>	0,192	1,576	0,124	Not Significant
Y <sub>1</sub> - Y <sub>2</sub>	0,621	5,346	0,000	Significant

*t Table (Model 1) = 2.024 (df = 38, a = 0.05)*  
*t Table (Model 2) = 2.026 (df = 37, a = 0.05)*

(Source: Data Processed Using SPSS 25)

#### Equation Model 1

In summary, the results of the path analysis in equation model 1 can be seen in the equation results and Figure 2 as follows.

$$Y_1 = -0.097X_1 - 0.143X_2 + 0.020X_3 + E_1$$

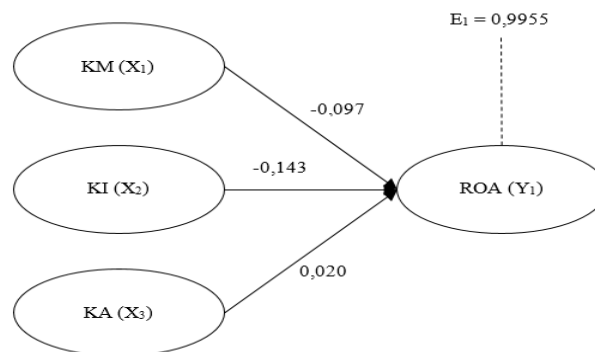


Figure 2 Equation Model 1

Equation Model 1

The results of the model analysis that examines the relationship between managerial ownership, institutional ownership, foreign ownership, and profitability on firm value can be seen in the equation results and Figure 3 as follows.

$$Y_2 = 0.431X_1 + 0.494X_2 + 0.192X_3 + 0.621Y_1 + E_2$$

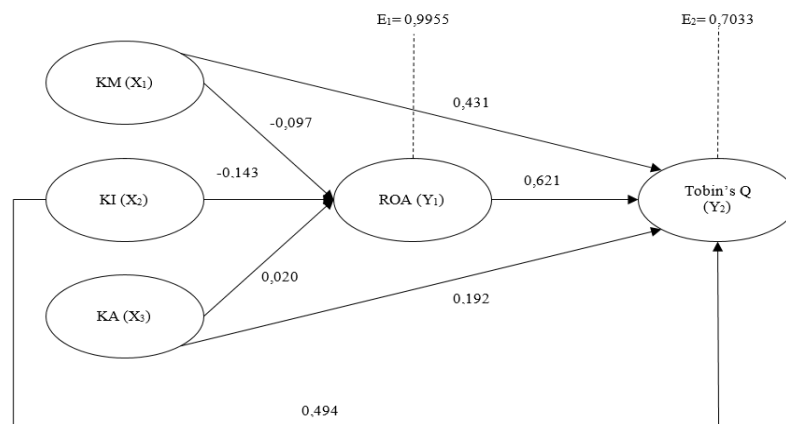


Figure 3 Equation Model 2

Furthermore, the indirect effect and total effect are shown to be used as decision-making material regarding which variable has the most influence on firm value. Based on the results of the path analysis model, the calculation of the indirect effect and the total effect of each variable studied is shown in Table 11. A mediating variable can be said to have a mediating role if the indirect effect coefficient is greater than the direct effect (Sienatra et al., 2015). First, the coefficient of the indirect effect of managerial ownership on firm value through profitability of -0.060 is smaller than the direct effect of 0.431. Thus profitability represented by ROA is not able to mediate the relationship between managerial ownership and firm value.

Second, the coefficient of the indirect effect of institutional ownership on firm value through profitability of -0.089 is smaller than the direct effect of institutional ownership on firm value with profitability mediation of 0.494. Thus, profitability is proven unable to mediate the relationship between institutional ownership and firm value.

Third, the coefficient of the indirect effect of foreign ownership on firm value through profitability of 0.002 is smaller than the direct effect of foreign ownership on firm value through profitability of 0.192. Thus, profitability is proven unable to mediate the relationship between foreign ownership and firm value. Based on the three explanations above, it can be said that profitability is unable to mediate any of the three independent variables in this study. The three relationships produce a greater direct effect than the indirect effect.

Table 11 Indirect Effect and Total Effect

Influence Type	Variable Relationship	Standard Coefficient Beta
Direct Influence	$X_1 - Y_2$	0,431
	$X_2 - Y_2$	0,494
	$X_3 - Y_2$	0,192
	$Y_1 - Y_2$	0,621
Indirect Effect	$X_1 - Y_1 - Y_2$	-0,060
	$X_2 - Y_1 - Y_2$	-0,089
	$X_3 - Y_1 - Y_2$	0,002
Total Influence	$X_1 - Y_1 - Y_2$	0,371
	$X_2 - Y_1 - Y_2$	0,405
	$X_3 - Y_1 - Y_2$	0,194
Indirect Relationship Results	$X_1 - Y_1 - Y_2$	$IE < DE$
	$X_2 - Y_1 - Y_2$	$IE < DE$
	$X_3 - Y_1 - Y_2$	$IE < DE$
Description:		
$IE = Indirect Effect$		
$DE = Direct Effect$		

(Source: Data Processed Using SPSS 25)

### 1. The Influence of Ownership Structure on Profitability

Empirically, the results of this study indicate that managerial ownership has no effect on profitability. In other words, the first hypothesis (H1) is rejected. The size of managerial ownership in a company does not affect its profitability. This is contrary to the view of agency theory. This can be interpreted that a management performance has no influence with management involvement in terms of share ownership. Management ownership cannot be an alternative in harmonizing conflicts of interest in agency relationships between principals and agents. Based on previous research, research results that contradict agency theory in terms of managerial ownership on profitability include Wida & Suartana (2014), Wiranata & Nugrahanti (2013), and Nurkhin et al. (2017).

The results showed that there is no significant relationship between institutional ownership and profitability. The behavior of institutional ownership variables does not show an influence on profitability as stated in agency theory. This theory explains why there are differences between agents and principals due to conflicts of interest. Because of this conflict of interest, the company must pay the agent. One way to reduce agency conflict is to increase the institutional ownership of the company. It is the result of institutional ownership that ensures that management performance is monitored. The company's profit report over a period of time is an indicator of management performance. So that their position is not threatened, management will try to generate high profits. This is because they will face consequences if they do something that could harm the principals. Therefore, profitability will increase with



greater institutional ownership. Some studies are in line with the results of Wiranata & Nugrahanti (2013) and Susanti & Mildawati (2014).

Based on the analysis conducted, the results show that foreign ownership has no effect on profitability. In other words, the third hypothesis (H3) is rejected. This can be interpreted that foreign ownership is unable to explain profitability and is not in line with the views of agency theory. According to this theory, the level of foreign ownership can provide comprehensive monitoring so that the company receives better monitoring. High foreign ownership will result in better supervision of the quality and continuity of the company to generate profits. Higher foreign ownership will deter managers' opportunistic behavior. However, the results of this study contradict agency theory and cannot explain the relationship between foreign ownership and profitability.

All three hypotheses have been proven to have no significant relationship. Managerial ownership, institutional ownership, and foreign ownership have no relationship with firm value. It can be said that the ownership structure during a pandemic cannot affect profitability in abnormal situations. Both in the pandemic era and in normal situations, the relationship between ownership structure and profitability is not significantly interrelated to minimize agency costs. The ownership structure is outside the scope of the company's operations.

## 2. The Influence of Ownership Structure on Company Value

The results of regression analysis on the relationship between managerial ownership and firm value show a significant effect. In other words, the fourth hypothesis (H4) can be accepted. The behavior of managerial ownership variables shows an influence on firm value and is in accordance with agency theory. In agency theory, increasing managerial ownership is considered as an alternative in reducing problems arising from agency relationships. Management will be more careful in acting and making decisions because they will get the consequences of the decisions taken. Therefore, firm value will increase along with high managerial ownership. The results of this study are in line with research conducted by Lestari et al. (2014), Sienatra et al. (2015), and Sun et al. (2016).

The results of research on the relationship between institutional ownership and firm value show evidence that there is a significant relationship. This proves that the behavior of the institutional ownership variable shows an influence on the firm value variable and this is in accordance with agency theory. In this theory, increasing institutional ownership can be an alternative to reduce conflicts of interest due to agency relationships so that supervision of management performance will be more secure. The results of this study are in line with research conducted by Wida & Suartana (2014), Sienatra et al. (2015), and Khairiyani (2018). The size of institutional ownership will greatly affect firm value. This situation shows that agency theory is able to explain the relationship between institutional ownership and firm value.

Based on the analysis that has been done, the results show that foreign ownership has no effect on firm value. In other words, the sixth hypothesis (H6) is rejected. This can be interpreted that foreign ownership is unable to explain firm value and is not in line with the views of agency theory. According to this theory, the level of foreign ownership can provide comprehensive monitoring so that the company receives better monitoring. High foreign ownership will result in better supervision of the quality and continuity of the company to achieve the company's goal, which is to optimize its value. Institutional investors will conduct more supervision on the company because higher foreign ownership will deter managers' opportunistic behavior. The results of research related to no significant relationship between

foreign ownership and firm value are in line with the research of Adhika Wardana & Susanti (2022).

Managerial ownership, institutional ownership, and profitability affect firm value. Institutional ownership has the most effect on firm value. It can be said that the supervision carried out by institutions such as investment companies, banks, insurance greatly influences the company's operations. One way that institutional investors can do this is by placing an advisory committee that aims to protect the interests of the principal, besides that providing input as material for consideration by management can also be done through shareholder meetings. Based on this, the greater the percentage of share ownership owned by the institution, the more effective the supervision effort will be to control the manager's opportunistic behavior (Ambarwati & Stephanus, 2014). Furthermore, foreign ownership has no effect on firm value. This is because the decision of foreign parties depends on the high and low exchange rates. In an abnormal situation, of course, it greatly impacts the value of currency exchange rates so that foreigners will look for potential companies such as pharmaceutical companies.

### 3. The Influence of Profitability on Company Value

The results of the regression analysis show that profitability proxied by Return on Asset (ROA) has a significant effect on firm value. The size of the level of ability to generate profits can affect the value of the company in the eyes of investors. With high profitability, it means that shareholders get a high return from each share invested in the company. Basically, signal theory says that companies should provide signals or signs through the information they release, including financial and non-financial reports. This information can give people outside the company an idea of the company's superiority. One of the company signals that the market or investors will respond to is profitability. The demand for a company's stock is the result of the market response. Stock prices rise as a function of firm value. As a result, the value of the company will increase with a high level of profitability. The results of this study are in line with the research of Syamsudin et al. (2020), Sunarwijaya (2017), Castellaneta et al. (2017), Nijam (2018).

### 4. The Mediating Role of Profitability in the Influence of Ownership Structure on Company Value

Profitability is a measure of a company's ability to generate profits, which can be used to bridge the influence of ownership structure which includes managerial ownership, institutional ownership, and foreign ownership on firm value. The results of this study prove that the effect of the three ownership structures on firm value cannot be mediated by profitability. This shows that management who has "power" in the company with share ownership is not interested in companies that generate high profits. The same goes for institutional investors and foreign investors. There are other factors beyond profitability that make investors decide to invest in the company. One study that is in line with the results of this study is Nurkhin et al. (2017) which also proves that profitability is unable to mediate the relationship between managerial ownership and firm value.

## V. CONCLUSION

The results showed that ownership structure and profitability simultaneously affect firm value. Partially, managerial ownership, institutional ownership, and profitability are proven to have a significant effect on firm value. Meanwhile, foreign ownership is not proven to have a significant effect on firm value. Other findings show that managerial ownership, institutional ownership, and foreign ownership have no effect on profitability. The results of this study are only able to prove agency theory which provides alternative problem solving in the relationship between managerial ownership and institutional ownership on firm value. In addition, signaling theory can also be proven in the relationship between the effect of profitability on firm value.

The results also prove that the profitability variable is not able to mediate the relationship between managerial ownership, institutional ownership, and foreign ownership of firm value. In this case, profitability is unable to act as a mediator. The view of signal theory contradicts the results of this study. Empirically, this can be understood that profitability does not provide significant information for managerial, institutional, or foreign shareholders to stay invested.

#### ACKNOWLEDGEMENT

The author would like to express gratitude to all the people who have helped in the completion of this study.

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