

Conference paper

The Effect of Characteristics on Firm Debt of Property and Real Estate Companies Listed on the Indonesia Stock Exchange

Rika Desiyanti¹, Rini Elvira², Nor Azilah Husin³, Aza Azlina Md Kassim⁴, Alfin Dwi Shandi¹

¹Faculty of Economics and Business Universitas Bung Hatta, Indonesia

²Faculty of Economics and Business Islam IAIN Bukittinggi, Indonesia

³Faculty of Business and Accountancy, Universiti Selangor, Malaysia

⁴Management and Science University, Malaysia

Abstract.

This study aims to obtain empirical evidence of the effect of managerial ownership, institutional ownership and profitability, size on debt policy in the property and real estate subsectors listed on the IDX (Period 2017-2020). The population in this study are property and real estate companies listed on the IDX for the 2017-2020 period with a sampling method using saturated sampling. The number of final samples that deserve to be observed are 15 companies with a total sample of 65 companies. The analysis was used using logistic regression analysis with the help of the Eviews program. The results of the analysis show that the variables of managerial ownership, institutional ownership and profitability have no effect on firm debt, meanwhile size have positive effect on firm debt.

Keywords: Managerial Ownership, Institutional Ownership, Profitability, Size, Firm Debt

Corresponding Author: Rika

Desiyanti; email:

rikadesiyanti@bunghatta.ac.id

Published 24 July 2023

Publishing services provided by
Knowledge E

© Rika Desiyanti et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ELEHIC Conference Committee.

1. INTRODUCTION

In the face of increasingly fierce competition in the business world, every organization must be better operating and competitive in the business sector, where the level of competition is increasing. The firm wants to grow stronger and make big profits, compete with other companies, and dominate the market [1]. For this reason, shareholders give trust to managers to manage, run the firm and overcome various obstacles in order to achieve the firm's goals because every financial decision will have an impact on subsequent financial decisions which will have an impact on the value of the Firm, the firm's management strives for the welfare of its shareholders by carrying out financial management functions carefully and correctly.

One way to get funds is by getting debt. A firm will have risks if it has a large composition of debt, but if the firm does not have debt, the firm is considered unable to use additional external capital that can increase the firm's operational activities. As

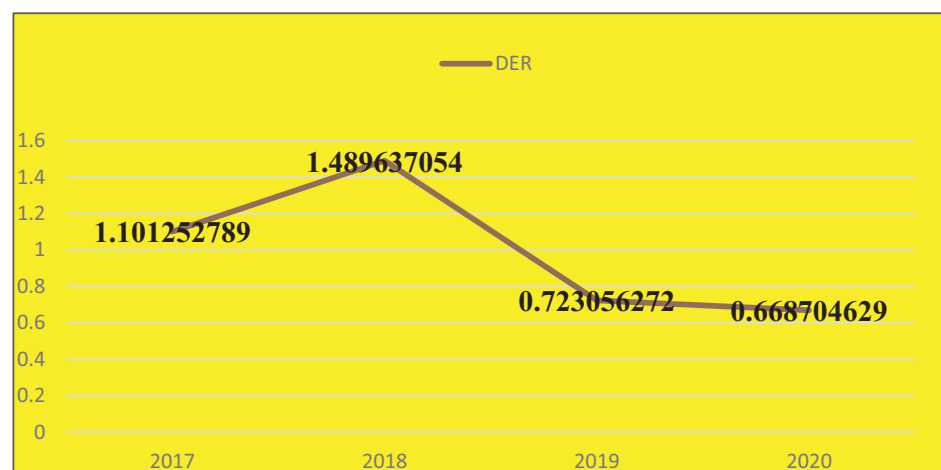
 **OPEN ACCESS**

is known, the importance of careful use of debt can be seen in several companies in Indonesia that almost went bankrupt due to failure to use their debt.

Debt is one of the sources of external financing used by the firm to finance its funding needs, but the firm is obliged to pay back or must fulfill the bill external. The fulfillment of this obligation can be in the form of payment of money, delivery of goods or services to parties who have provided loans to the firm. Debt is also an important mechanism for controlling the actions of managers and reducing conflicts of interest between manager with holdershare. [2] interpreting debt as an economic sacrifice that the firm will make in the future due to transaction previously. The sacrifice can be manifested in the form of money, assets, services, or doing certain jobs. Debt triggers the emergence of bonds that give creditors the right to which the firm’s assets can be claimed by them.

The purpose of the firm having debt is to increase the amount of money available for business activities. Through debt, the firm’s management determines the amount of debt that will be used to finance the business. The firm’s funding uses debt which can be measured using the debt to equity ratio (DER). Debt can be used through consideration of several things, including the size of the profitability and the structure of share ownership by managerial and institutional [3].

The following is data from the average DER of property and real estate sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2017-2020.



Source: www.idx.co.id

Figure 1: Average DER Level of Property and Real Estate Sub-Sector Companies Listed on the IDX in 2017-2020.

Figure 1 show, it can be seen that the debt (DER) in the property and real estate sub-sectors listed on the Indonesian stock exchange in 2017 was 1.10, which in 2018 increased significantly, namely 1.48. and in the next 2 years 2019 and 2020 experienced a very significant decrease, namely with DER of 0.72 and 0.66. This means that a firm

that has decreased its DER for 2 consecutive years can be said to have been able to control the firm's debt well, this indicates that the firm's health is good. Debt that is too large can cause agency costs. Agency cost is all expenses related to controlling undesired manager behavior, tracking manager actions, and missed opportunities due to shareholder restrictions on manager activity [4].

Financing with debt is a decision taken by a firm to obtain funds from outside parties to meet the firm's operational needs. Current economic developments encourage companies to continue to develop their businesses in order to survive and obtain better corporate value. To develop a business, a firm needs more funds and when there are not enough funds the firm will go into debt. However, indebtedness can be risky and therefore companies must carry out operational activities effectively to avoid these risks. Debt policy is an alternative to firm funding apart from selling shares in the capital market [5].

Factors that affect debt companies are managerial ownership, institutional ownership profitability and size. Low dividend payout to shareholders is the result of high managerial ownership [6]. Through a very good corporate governance mechanism, which is able to align the interests of managers and owners, principals can indirectly use this mechanism to reduce agency costs incurred by agents. One of the mechanisms in good corporate governance is to use the ownership structure, including managerial ownership and institutional ownership of the firm. The increase in insider ownership is a factor in the relationship between managerial ownership and debt which will cause insiders to be more careful in using debt and avoid opportunistic behavior because they share the consequences of their actions tend to use low debt [4].

Managerial ownership is the management party consisting of managers, directors or commissioners of the firm who actively participates in making decisions related to the firm and also has the opportunity to take part in the firm's share ownership or become shareholders [7]. The results of research conducted by [8, 9] states that managerial ownership has no effect on debt. In contrast to the research conducted by [10] shows that managerial ownership has a positive effect on debt.

Institutional ownership refers to the organization that owns shares in a firm [11]. In controlling the interests of managers, including shareholders. Institutional ownership which is a significant shareholder plays an important role. It can also help reduce agency conflicts that may occur between managers and shareholders. Managers' behavior can be better regulated through institutional leadership, which reduces the utilization of corporate debt. To maximize firm value, [12] display how the Firm's ownership structure affects the Firm's performance. The success of a Firm is influenced by its management,

which in turn can increase its value. The more institutional ownership a firm has, the more effectively its assets are used. This is so that management can prevent waste by acting early through institutional ownership. The findings show that if institutional ownership has no effect on debt to the property and real estate sub-sector companies for the 2017-2020 period. The results of this study are in line with the results of research conducted by [13] which shows that institutional ownership has a positive effect on debt. As well as research according to [14] who found a significant and positive effect of institutional ownership on debt.

The third factor is profitability. Profitability is a description of financial performance in managing the firm which shows the firm's success in generating profits [15]. [16] states that profitable companies usually borrow only limited amounts because they fund their operations internally. According to agency theory, profitable businesses will use debt to minimize asset abuse by managers who do not consider the interests of shareholders. Profitability research on debt conducted by [9, 17, 18, 19, 20] found that profitability had a significant positive effect on debt.

Firm size is also a factor that affects the amount of firm debt [21]. Firm size can be seen from the number of assets owned by a firm. Large companies will find it easier to obtain loans because the value of their assets will be used as collateral and the level of trust in banks or creditors is also higher [22].

1.1. Hypothesis Development

1.1.1. The Effect of Managerial Ownership on Firm Debt

Managerial ownership will link the interests of management and shareholders so that managers can directly benefit from the decisions taken [11]. Managerial ownership, refers to the percentage of shares owned by members of management who play an active role in decision making, such as directors and commissioners. Managerial ownership is closely related to firm debt. When share ownership is increased, managers will directly feel the consequences of making these decisions [23]. Managerial ownership will bear the consequences of the policies taken so that managers are more vigilant in making decisions regarding the use of debt, and the existence of managerial ownership can align the interests between management and shareholders [24]. The greater the proportion of share ownership owned by the manager, the lower the level of debt so as to reduce the level of risk experienced by the firm.

Since management ownership makes it easier for companies to make decisions, it plays an important function in the organization and managerial ownership has the power to influence a firm's financial policies and ensure that they reflect the wishes of shareholders, managerial ownership also has a significant impact on debt policy. Through managerial ownership, management has the authority to choose the level of the firm's debt policy. Based on previous research conducted by (10) in his research which states that managerial ownership has a positive effect on debt policy, and research conducted by [25] and [26] shows that managerial ownership has a positive effect on debt policy. This shows that managerial ownership can be used to control agency costs using debt. Based on this, the following hypotheses can be formulated:

1.2. H1: Managerial ownership has a positive effect on Firm debt

1.2.1. The Effect of Institutional Ownership on Firm Debt

Institutional parties own a percentage of shares at the end of the year which is usually referred to as institutional ownership [23]. This variable will describe the level of institutional share ownership in the firm. The greater the level of institutional ownership, the greater the voting power and encouragement of the institution to oversee management which as a result can provide a greater impetus to optimize the value of the firm and increase firm performance [27].

Hence, institutional ownership that is a large shareholder has a crucial role in controlling the interests of managers, including shareholders and can minimize agency conflicts that arise between managers and shareholders [11]. Institutional ownership is the ownership of shares of a firm by the institution at the end of the year whose measurement can be observed from the percentage. Institutional investors are the same as investment companies, insurance companies, banks, and other institutional ownership. The higher institutional ownership can trigger the strengthening of external control in the firm which ultimately minimizes agency costs [28].

When expressed as a percentage at the end of the year, institutional ownership refers to the portion of shares owned by an organization such as an insurance firm. Corporations will find it easier to manage management with better monitoring if institutional ownership is used. The number of shares owned by the constitution must be greater so that supervision can be effective and efficient.

In line with agency theory, the increase in capital turnover indicates to creditors that the firm can carry out operational activities optimally and indicates that the firm's funds

can be used to increase net sales, which ultimately the firm does not have to make loans. From several previous studies, among others, research conducted by [4] shows that institutional ownership has an influence on firm debt. In research conducted by [29] found that institutional ownership has a positive effect on debt. While research [13] concluded that if institutional ownership has a positive effect on firm debt, which means that the greater the percentage of institutional ownership in the firm, the greater the firm's debt policy. This is in line with research [14] which has a significant and positive effect of institutional ownership on corporate debt. The proposed hypothesis (H2) is:

1.3. H2: Institutional ownership has a positive effect on firm debt

1.3.1. The Effect of Profitability on Firm Debt

A firm's profitability is determined by its capacity to generate profits based on sales, total assets, and working capital [30]. Profitability can be used to measure a firm's capacity to generate profits and to assess how well its performance management system is working. A high level of profitability indicates that the firm is operating well and to its maximum potential. Profitability is the firm's ability to earn profits by selling its total assets or with its own capital [31]. Companies with high levels of profitability will soon be able to create income that can be used to pay commitments, namely reducing debt [32].

When profitability is low, the firm will use debt to finance its operations. However, when profitability is strong, a firm will limit its use of debt by allocating a portion of its profits to retained earnings, enabling it to finance its operations with internal resources and reduce debt. In several previous studies, including research conducted by [9, 18, 19] shows that profitability has a significant positive effect on debt policy. Research conducted by [33] found that profitability has a positive relationship with debt policy. Research conducted by [20] which shows that profitability has a significant positive effect on firm debt. Based on the description, it can be concluded that the hypothesis is as follows:

1.4. H3: Profitability has a positive effect on the firm's debt

1.4.1. The Effect of Firm Size on Firm Debt

The larger the size of a firm, the greater the need for funding to carry out its operational activities. The funding needs can be obtained from external funding, namely debt.

According to agency theory, companies will use debt to reduce agency problems that occur between management and shareholders [34]. As well as the larger the size of a firm, it will further increase the confidence of outsiders to lend funds to the firm. This theory is supported by research conducted by [22] and [34] with the results of his research which states that firm size has a positive influence on debt policy. So the fourth hypothesis in this study is:

1.5. H4: Firm size has a positive effect on the firm's debt

1.5.1. Conceptual Framework

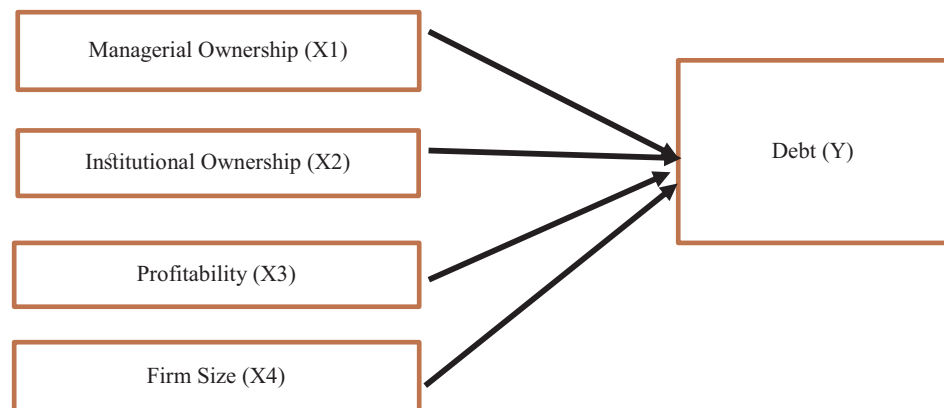


Figure 2: Conceptual Framework.

2. METHODOLOGY/ MATERIALS

2.1. Population and Sample

Population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by the researcher to be studied and then draw conclusions [35]. The population used in this study is the property and real estate sub-sector companies that register on the IDX for the 2017-2020 period. The total population in this study were 65 companies.

According to [35] the sample is part of the number and characteristics possessed by the population. If the population is large, and it is not possible for the researcher to study everything in the population, for example due to limited funds, manpower, time, then the researcher can use samples taken from the population. For sampling in this study, saturated sampling is used, namely the technique of determining the sample when all

members of the population are used as samples. So the sample taken is as many as 65 companies.

2.2. Types of Data and Data Collection Methods

The type of data used in this research is quantitative. Quantitative data is a collection of numerical data [36]. Quantitative data is data that uses numbers as a means to obtain information or expertise on a topic. In this study, secondary data was used as a source of information. Secondary data is research data obtained by researchers indirectly through intermediary media, obtained from the website www.idx.com. The data acquisition method in research uses documentation techniques which are carried out by collecting annual report data from the Indonesia Stock Exchange which is recorded through recording. The required data such as total assets, total debt, total equity, net income, total share ownership by managers, total share ownership by institutions and the number of outstanding shares of property and real estate sub-sector companies listed on the Indonesia stock exchange for the 2017-2022 period, which are then processed through tabulations and compiled according to the needs of the researcher.

2.3. Variables And Operational Definitions

2.3.1. Corporate debt

Firm debt can be calculated using DER (Debt to Equity Ratio), which is dividing total debt by total equity as follows [37]:

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

2.3.2. Managerial ownership

Managerial ownership (MWON) is ownership of shares by the management who participates in making firm decisions [38]. The measurement scale used is the ratio scale formula [38]:

$$MWON = \frac{\text{Total Managerial Share Ownership}}{\text{Number of shares outstanding}}$$

2.3.3. Institutional Ownership

Variable of institutional ownership can be measured by the percentage of the number of shares owned by other institutions outside the Firm, a minimum of 10% of the number of companies with the calculation [14], namely:

$$INS = \frac{\text{Total Institutional Share Ownership}}{\text{Number of shares outstanding}} \times 100$$

2.3.4. Profitability

Profitability ratio measures the firm's ability to generate profits by using the sources owned by the firm, such as assets, capital, or firm sales. In this study, the ratio used is Return On Assets (ROA) [39].

$$ROA = \frac{\text{Net Income}}{\text{Total Asset}}$$

2.3.5. Firm Size

Firm size is a scale that can classify or classify the size of a Firm in various ways, including total assets, sales stability, and stock market value. Measurement of Firm size used the following formula [40]:

2.4. Firm Size = Ln Total Assets

2.4.1. Data analysis method

The analytical method used in this research is multiple linear regression analysis. Multiple linear regression was used to test the effect of two or more independent variables on one dependent variable. To perform multiple linear regression analysis, the conditions that must be met are to test the classical assumptions. Hypothesis testing is done by using statistical test tools. Data processing in this study was carried out using the help of the Eviews 12 program.

2.4.2. Descriptive Statistical Analysis

To provide valuable information, descriptive statistics use methods that characterize the state of the data collected. The use of descriptive statistics helps researchers better understand, analyze, and interpret research variables, which can be represented numerically with the mean, maximum, minimum, and standard deviation of each variable [41].

2.4.3. Classic Assumption Test

Classical assumption test is a requirement that must be met before performing multiple linear regression testing so that the model becomes valid or feasible in research. The purpose of the classical assumption test is to provide certainty that the regression equation obtained has accuracy in estimation, does not deviate, and is consistent. In this study, the classical assumption test used was the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

2.5. Data Analysis Technique

2.5.1. Multiple Linear Regression Analysis

Multiple linear regression analysis is a statistical technique to determine the effect of several independent variables (independent) on the dependent variable (dependent). The multiple regression model in this study is as follows [42]:

$$DER = \alpha + \beta_1 MWON + \beta_2 INS + \beta_3 ROA + \beta_4 Size + e$$

Information:

DER : *Debt to Equity Ratio*

MOWN : *Managerial Ownership*

INS : *Institutional ownership*

ROA : *Return On Assets*

α : Constant

β_1 : Regression coefficient of managerial ownership variable

β_2 : Institutional ownership variable regression coefficient

β_3 : Profitability variable regression coefficient

β_4 : Firm Size variable regression coefficient

e : error

2.5.2. Coefficient of Determination Test (R^2)

This test is to measure how far the model's ability to explain the related variations. In this case, the adjusted R^2 [36] value is used.

2.5.3. T test

The assessment criteria with this method is if the value of t count is greater than t table, then the research hypothesis is accepted, and vice versa. The t test is used to partially test the effect of the independent variable on the dependent variable [43].

3. RESULTS AND DISCUSSIONS

3.1. Object of research

The data used in this study were obtained from the financial statements of the property and real estate sub-sector companies on the Indonesia Stock Exchange. The data used include managerial ownership of the firm as measured by the percentage of the number of shares owned by management, institutional ownership as measured by the percentage of voting rights or shares owned by the institution, profitability as measured by return on assets and debt policy measured using total debt divided by with total equity. The research period covers the years 2017 to 2020. In this study, the sampling procedure that has been carried out is shown in Table 1:

TABLE 1: Sampling Procedure.

Information	Amount
Number of property and real estate companies on the IDX in 2017 – 2020	65
Companies that do not publish Complete Financial Statements from 2017 – 2020	(15)
Companies that do not provide complete information related to research variables	(32)
Companies that were delisted from the IDX from 2017-2020	(3)
Number of selected companies	15

Source: Data processed, 2022

Table 1 showed data identification process, it is known that the number of property and real estate companies on the Indonesia Stock Exchange amounted to 65 companies, after observations it was known that 15 companies did not publish audited financial statements in a row from 2017 to 2020, besides that 32 other companies did not provide complete information about the research variables. used and 3 delisted companies from the IDX during the observation period, so that the number of companies selected as samples were 15 companies from all companies engaged in the property and real estate sub-sector on the Indonesia Stock Exchange.

3.2. Descriptive Analysis Results

Descriptive analysis is used to provide an overview or description of the mean, standard deviation, maximum and minimum of the variables in the study. The descriptive statistics of the research variables are presented in the table below:

TABLE 2: Descriptive Statistics of Research Variables.

	DER	MWON	INS	ROA	Total Assets
Mean	0.7146	0.1183	0.5830	0.0295	27.2265
Std. Dev	0.7034	0.1557	0.2391	0.0523	1.8252
Maximum	3,7000	0.4800	0.9700	0.1700	30,2125
Minimum	0.0600	0.0000	0.0000	-0.0600	25,2323
Observation	60	60	60	60	60

Source: Data processed, 2022

Based on descriptive statistics Table 2, it is known that the amount of data processed is 60 observations. From the tabulation of data, it is known that the lowest value of debt policy is 0.0600 while the highest value is 3.7000. Overall, the average value of debt policies owned in general in the property and real estate sub-sectors has an average firm value of 0.7146 with a standard deviation of 0.7034. In accordance with the average value obtained, it can be concluded that the debt policy of the property and real estate sub-sector companies has a relatively low position.

The managerial ownership variable has a minimum value of 0.0000 and a maximum value of 0.4800. The average value (mean) is 0.11833 and the standard deviation is 0.1557. The minimum value of 0 indicates that most of the property and real estate sub-sector companies have a positive value on their managerial ownership. In addition, a standard deviation that is greater than the mean indicates a condition that is not too good due to the large fluctuations in the value of managerial ownership.

The institutional ownership variable has a minimum value of 0.0000 and a maximum value of 0.9700. The average value (mean) is 0.5830 and the standard deviation is 0.2391. The minimum value of 0 indicates that most of the property and real estate sub-sector companies have a positive value. In addition, a lower standard deviation compared to the mean indicates a good condition due to the absence of large fluctuations in the value of institutional ownership.

The profitability variable has a minimum value of -0.0600 and a maximum value of 0.1700. The average value (mean) is 0.0295 and the standard deviation is 0.0523. The minimum value of -0.0600 indicates that most of the property and real estate sub-sector companies have a negative value on profitability. In addition, a standard deviation that is larger than the mean indicates a condition that is not too good due to a fairly large fluctuation in the profitability value.

The firm size variable has a minimum value of 25.2323 and the maximum value is 30.2125. The average value (mean) of 27.2265 and the standard deviation of 1.8252.

3.3. Classic Assumption Test Results

Classical assumption test is a requirement for multiple regression analysis. This is done so that the results of the processed data can describe the purpose of the research and obtain valid results. The classical assumption test in this study used normality test, multicollinearity test, heterocadasticity test, and autocorrelation test.

3.4. Normality Test Results

Normality test is a test used to determine whether the data distribution pattern is normal or not. According to 41) in carrying out normality testing, the Jarque-Bera test is used. If the probability value > alpha 0.05 then it can be said to have been normally distributed. The following are the results of normality testing in the table below:

TABLE 3: Normality Test Results.

Variable	Prob	Alpha	Conclusion
Corporate debt	0.0000	0.05	Not Normal
Managerial ownership	0.0003	0.05	Not Normal
Institutional Ownership	0.2609	0.05	Normal
Profitability	0.2990	0.05	Normal
Firm Size	0, 3887	0.05	Normal

Source: Data processed, 2022

Based on the results of normality Table 3, there are two variables that have a small probability value of 0.05, namely debt policy and managerial ownership, so it can be concluded that some of the research variables used have not been normally distributed. Therefore, further processing steps cannot be carried out before all research variables used are normally distributed.

According to [41] data that are not normally distributed can be transformed so that they are normally distributed. But before that, we must know in advance the shape of the histogram graph of the data on each research variable in order to determine the shape of the data transformation. After testing, it was found that the histogram graph for each research variable was in the form of moderate positive swekness so that the form of data transformation to be carried out was transformation to the SQRT (x) value. The residual value (RESI) of the four variables will be transformed by SQRT (x). The second stage of normality testing after data transformation shows results as shown in the table below:

TABLE 4: Normality Test Table after Normalizing.

Variable	Prob	Alpha	Conclusion
Corporate debt	0.4570	0.05	Normal
Managerial ownership	0.1218	0.05	Normal
Institutional Ownership	0.2609	0.05	Normal
Profitability	0.2990	0.05	Normal
Firm Size	0, 3887	0.05	Normal

Source: Data processed, 2022

Table 4 showed the output results after SQRT (x) transformation is carried out on the residual value of the research variables, namely debt policy, managerial ownership, institutional ownership and profitability, the probability value is greater than alpha 0.05, so it can be concluded that the assumption of normal distribution of data is met, so that the analysis can be concluded.

3.5. Multicollinearity Test Results

This multicollinearity test was conducted to see whether the regression model found a correlation between the independent variables. If there is a strong correlation, it can be said that there has been a multicollinearity problem in the regression model. Detecting multicollinearity symptoms is to use or look at a test tool called the variance inflation factor (VIF). The VIF value is less than 10, indicating that the model does not have multicollinearity symptoms, meaning that there is no relationship between the

independent variables. The following are the results of multicollinearity testing in the Table 5 below:

TABLE 5: Multicollinearity Test Results (VIF).

Variable	VIF (Variance inflation factors)
Managerial ownership	1.2208
Institutional Ownership	1.3397
Profitability	1.4740
Firm Size	1.3422

Source: Data processed, 2022

Based on the output of data processing using Eviews Table 5, it can be seen that the VIF value of the three variables (managerial ownership, institutional ownership and profitability) has a VIF value of less than 10, so it can be concluded that this research data is free from multicollinearity [43].

3.6. Heteroscedasticity Test Results

Heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. One way to detect the presence or absence of heteroscedasticity is to perform the Breush-Pagan-Godfrey test. The probability result is said to be significant if the significance value is above the 5% confidence level (0.05). The decision taken is if the significance value is greater than 0.05 (alpha), then H0 is accepted. On the other hand, if the significance is less than 0.05 (alpha), then H0 is rejected (43). The following are the results of heteroscedasticity testing in the table below:

TABLE 6: Breush-Pagan-Gofrey . Test (Heteroscedasticity Test).

Obs* R-Squared	Alpha	Conclusion
0.2405	0.05	There is no heteroscedasticity

Source: Data processed, 2022

Based on the results of heteroscedasticity testing using the Breush-Pagan-Gofrey test Table 6, the F-Statistic value is 0.2405 which is more than alpha 0.05, so it can be concluded that the variables in the regression model in this study do not have problems. heteroscedasticity.

3.7. Autocorrelation Test Results

The autocorrelation test aims to ensure that the variance of each research variable used is not correlated with one another in each observation period. Autocorrelation testing is carried out using the Durbin Watson (DW) test if the DW value is -2 then there is a positive autocorrelation, if the DW value is between -2 to $+2$ there is no autocorrelation, if DW is $+2$ then a negative autocorrelation occurs [43]. The following are the results of the autocorrelation test in the Table 7:

TABLE 7: Autocorrelation Test Results.

Test Tool	Coefficient	Information
Durbin Watson (DW)	(-2) 1.944914 (+2)	There is no autocorrelation

Source:Data processed 2022

Based on the results of the autocorrelation test Table 7, it can be seen that the Durbin Watson (DW) value is 1.944914. These results obtained meet the requirements of two squares -2 1.944914 $+2$ so that it can be concluded that this study is free from autocorrelation.

3.8. Data analysis technique

3.8.1. Multiple Linear Regression Analysis Results

After all research variables are normally distributed and free from symptoms of classical assumptions such as multicollinearity, heteroscedasticity, and autocorrelation, the multiple linear regression testing stage can be carried out immediately. The results of the regression of managerial ownership variables, institutional ownership and profitability as independent variables on debt policy as the dependent variable can be seen in the following table:

TABLE 8: Results of Multiple Regression Analysis.

Variable	Regression Coefficient
Constant	0.3335
Managerial ownership	0.2642
Institutional Ownership	0.7127
Profitability	-2.2235
Firm Size	3.2278

Source:Data processed, 2022

Based on Table 8, it can be seen that in general the multiple linear regression equations that can be made based on the resulting regression coefficients are as follows:

$$Y = 0.333574 + 0.264217X_1 + 0.712704X_2 - 2.223557X_3 + 3.2278X_4 + e$$

3.8.2. Coefficient of Determination (R²)

The analysis of the coefficient of determination aims to determine the contribution given by the independent variable as measured by the percentage. Based on the results of testing the coefficient of determination, a summary of the results can be seen in table 9 below:

TABLE 9: Coefficient of Determination (R²).

Variable	R-squared
Corporate debt	0.3235

Source: Data processed, 2022

Based on Table 9 it can be seen that the value of the coefficient of determination (R²) of 0.3235. The results obtained indicate that the variables of managerial ownership, institutional ownership, profitability and firm size are able to contribute to influencing debt policy in property and real estate sub-sector companies by 32.35% while the remaining 67.65% is influenced by other variables. not used in this study.

3.8.3. Test Results

The t test is used to measure how far the influence of one independent variable individually in explaining the variation of the dependent variable. If the resulting probability value is less than alpha 0.05 then H0 rejected and Ha accepted means that it can be concluded that the independent variable has an effect on the dependent variable. And vice versa if the resulting probability value is greater than alpha 0.05 then H0 accepted and Ha rejected means that it can be concluded that the independent variable has no effect on the dependent variable. Based on the results of the model feasibility test using the T-statistic test, it can be seen in table 10 below:

Based on the output above, the probability t-statistics value of managerial ownership is 0.6858, institutional ownership is 0.1134 and profitability has a value of 0.300, this value is greater than alpha 0.05 so it can be concluded that managerial ownership, institutional ownership and profitability are partially not significant effect on firm debt. While the size of the firm has a positive influence on the firm's debt.

TABLE 10: T Test Results.

Variable	Regression coefficient	Significant	Alpha	Conclusion
<i>Constanta</i>	0.3335			
Managerial ownership	0.2642	0.6858	0.05	Not significant
Institutional ownership	0.7127	0.1134	0.05	Not significant
Profitability	-2.2235	0.3007	0.05	Not significant
Firm Size	3.2522	0.0350	0.05	Significant

Source:Data processed, 2022

3.9. Results and Discussion of Hypotheses

3.9.1. Effect of Managerial Ownership on Firm Debt

Based on the results of the t-statistical test in Table 11, managerial ownership has a positive regression coefficient value of 0.2642 and a significant value of 0.6858 with an error rate of 0.05. These results indicate that the significant value of 0.6858 is greater than alpha 0.05, thus the first hypothesis (H1) is rejected and it can be concluded that managerial ownership has no significant effect on debt policy. This is because the average value of the number of managerial shareholdings in the property and real estate sub-sector companies is relatively small so that the interests of the owners and managers cannot be shared.

Managerial ownership that is still low causes managers to act detrimental to shareholders such as committing accounting fraud because managers protect their interests that are different from the interests of the owners. Due to the relatively small managerial ownership, there is still a conflict of interest between the owner and the manager. Where in terms of the manager's personal interests cannot be equated, so it can be said that the property and real estate sub-sector companies still have low managerial ownership. Therefore, it has not been able to reduce the actions of managers in carrying out firm debt.

The results of this study are in line with research conducted by [44, 45], found that managerial ownership has no significant effect on firm debt. This is also in line with research [46, 4] who found that managerial ownership does not have a significant effect on firm debt.

3.9.2. The Effect of Institutional Ownership on Firm Debt Policy

Based on the results of hypothesis testing in Table 11, institutional ownership has a coefficient value of 0.7127 and a significant value of 0.1134 with an error rate of 0.05. These results indicate that the significant value of 0.1134 is greater than 0.05, thus the second hypothesis (H2) is rejected and it is concluded that institutional ownership has no significant effect on firm debt. This shows that institutional share ownership by an institution or an institution can be measured based on the number of shares owned by the institution to the total number of shares. In this case the institution can monitor the manager in preparing financial statements in order to minimize the use of debt.

The results of this study are in line with research conducted by [47] where the results of their research show that institutional ownership has no significant effect on firm debt. As well as the results of research conducted by [48, 8, 49] which state that institutional ownership variable has no significant effect on firm debt.

3.9.3. The Effect of Profitability on Firm Debt

Based on the results of hypothesis testing in table 4.11 profitability has a coefficient value of 0.0162 and a significant value of 0.9912 with an error rate of 0.05. These results indicate that the significant value of 0.9912 is greater than 0.05, thus the third hypothesis (H3) is rejected and it can be concluded that profitability has no significant effect on firm debt. This shows that the higher or lower the level of profitability in the property and real estate sub-sector companies does not affect the firm debt.

The results of this study are in line with research conducted by [4] which show that profitability has no significant effect on debt policy. As well as results research by [50] shows that profitability has no significant effect on debt policy.

3.9.4. The Effect of Firm Size on Corporate Debt

The results of the study found that the coefficient of the firm size variable was negative and with a significance value of $0.0350 < 0.05$ as shown in Table 11. Thus the fourth hypothesis in this study was accepted because firm size had an effect on firm debt in property and real estate subsector company listed in Indonesia stock exchange. The larger the size of the firm, the creditors will be willing to lend their funds because large companies will be able to repay debts in the form of principal loans along with interest

payments on time. This research was supported by the results of research conducted by [50, 34, 22] who found the results that firm size had a positive effect on firm debt.

4. CONCLUSION AND RECOMMENDATION

4.1. Conclusion

This study aims to examine the effect of managerial ownership, institutional ownership, profitability and size on firm debt in property and real estate sub-sector companies listed on the Indonesia Stock Exchange in 2017-2020. Based on the results of research and discussion in the previous chapter, it can be concluded that:

1. Managerial ownership has no significant effect on the debts of property and real estate sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period.
2. Institutional ownership has no significant effect on the firm debts property and real estate sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period.
3. Profitability has no significant effect on the firm debt of property and real estate sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period
4. Firm Size has significant effect on the firm debt of property and real estate sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period

4.2. Recommendation

Based on the conclusions and limitations of the study, the researcher proposes several suggestions that can be used as a reference for the future based on the limitations of the research conducted:

1. Future research is suggested to increase the number of sample companies that will be used.
2. Increase the number of variables from research such as public ownership, Firm size, good governance, net profit margin, leverage and so on.
3. Extend the research period and at least add new variables that have not been used in this study, which is to increase the accuracy of future research results.

4. For further research, researchers should look for fully published IDX data or by visiting the official website of the firm that you want to research in order to make it easier for researchers to conduct research.
5. Investors in this case are expected to be vigilant in reading and using the information in the Firm's financial statements so as not to experience errors. In making decisions and it is hoped that investors will be more careful in assessing the Firm's financial statements, they should not only pay attention in terms of assets, but also pay attention to other aspects such as liabilities and Firm equity.

ACKNOWLEDGEMENTS

Thank you to Bung Hatta University who have supported me both in terms of material and nonmaterial. I can following the international conference and hopefully, my paper can publish in reputable international journals. Thank you for the useful science that I got from the third international conference of the ELEHIC.

References

- [1] Wahyuni, S., Azharuddin, M., & Asnawi, M. (2016). The effect of asset structure, profitability, dividend policy, and tax rate on the Firm's debt policy (empirical study on manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange 2011-2014). *Proceedings 1th Celscitech-UMRI*, 1, 46-52.
- [2] Hidayat, MS (2013). Effect of managerial ownership, dividend policy, structure assets, sales growth, and firm size on debt policy. *Journal of Management Science*, 1(1), 12-25.
- [3] Gusti, BF (2013). The effect of free cash flow and share ownership structure on debt policy with the investment opportunity set as the moderating variable (empirical study on manufacturing companies listed on the IDX). *Journal of Accounting*, 1(2).
- [4] Indahningrum, RP, & Handayani, R. (2018). Effect of managerial ownership, institutional ownership, dividends, Firm growth, free cash flow and profitability to the Firm's debt policy. *Journal of business and accounting*, 11(3), 189-207.
- [5] Desiyanti, Rika. 2017. *Investment and Portfolio Theory*. Bung Hatta University Press, Padang.
- [6] Mursalim, M. (2018). Economic value added and market value added impact on value Firm. *Journal of Finance and Banking*, 13(3), 498-505.

- [7] Suastini, NM, Purbawangsa, IBA, & Rahyuda, H. (2016). The effect of managerial ownership and Firm growth on firm value in manufacturing companies on the Indonesia Stock Exchange (capital structure as a moderating variable). *E-Journal of economics and business Udayana University*, 5(1), 143-172.
- [8] Murtiningtyas, AI 2012. Dividend policy, managerial ownership, institutional ownership, profitability, business risk on debt policy. *Accounting Analysis Journal* 1(2): 1-6.
- [9] Hardiningsih, Pancawati and Oktaviani, Rachmawati M. 2012. Determinants of debt policy in agency theory and pecking order theory. *Dynamics Journal Accounting, Finance and Banking*.
- [10] Ratnaningsih, U. (2016). The effect of managerial ownership, institutional ownership, dividend policy, asset structure and return on assets (ROA) on debt policy in manufacturing companies listed on the Indonesian stock exchange in 2010-2014. *Journal of Accounting Faculty of Economics*, 1-23.
- [11] Jensen, MC, & Meckling, WH (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- [12] Priyono, R. (2017). "The influence of ownership structure and intellectual capital on firm value." *Indonesian Journal of Accounting and Finance*, 3(2), 10–11.
- [13] Mahsunah, T. 2016. The effect of free cash flow, profitability, and institutional ownership on debt policy. *Journal of Accounting Science and Research* 2(12): 1-19.
- [14] Susilawati, RAE (2018). Effect of managerial ownership and institutional ownership on corporate debt policy: An agency theory perspective. *Journal of Modernization Economics*, 3(2), 86-102.
- [15] Brigham, E. F and FJ Houston. 2011. *Fundamentals of financial management*. Issue 10. Salemba Four. Jakarta.
- [16] Mazur, K. 2007. The determinant of capital structure choice: Evidence from polish companies. *Int Adv Res*, 13:495-514.
- [17] Aminah, Nazula Nur and Wuryani, Eni. (2021). The effect of institutional ownership, firm size, profitability on debt policy in manufacturing companies in 2014-2018. *Journal of Accounting and Finance Research*, 9.2: 337-352.
- [18] Amalia, N. (2020). *The Effect of Profitability, Firm Growth, Firm Size, And Institutional Ownership on Debt Policy in Manufacturing Companies* (Doctoral dissertation, STIE Perbanas Surabaya).
- [19] Yuniarti, Ahadiyah Muslida Dewi (2013). The effect of managerial ownership, dividends, profitability and asset structure on debt policy. ISSN 2252-6765.

- [20] Susanti, E. (2018). The Effect of Profitability, Leverage, Sales Growth and Firm Size on Tax Avoidance (Empirical Study on Companies in the Mining and Agricultural Sector Listed on the Indonesia Stock Exchange 2012-2017).
- [21] Mayanti, NMD, Endiana, IDM, Pramesti, IGAA, & Rahmadani, DA (2021). The Effect of Financial Performance, Firm Size, and Debt Policy on Dividend Policy in Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 Period. *KARMA (Accounting Student Research Work)*, 1(1).
- [22] Putra, ZY 2017. Stiesia Effect of Free Cash Flow, Profitability and Firm Size on Debt Policy. *Journal of Accounting Science and Research*6(3).
- [23] Trisnawati, I. (2016). Factors influencing debt policy in non-financial companies listed on the Indonesian stock exchange. *Journal of business and accounting*, 18(1), 33-42.
- [24] Ifada, LM, & Yunandrianata, Y. (2018). Factors that influence the Firm's debt policy (empirical studies on manufacturing companies listed on the Indonesian stock exchange in 2012-2014). *Journal of Accounting and Auditing*, 14(1), 40-54.
- [25] Kahar, SHA (2008), Managerial ownership of funding and dividend decisions, *Journal of Finance and Banking*, Vol.12 No.3, p. 399 – 410.
- [26] Haruman, T. (2008), Effect of ownership structure on funding decisions (agency theory perspective) survey on manufacturing companies at the Indonesian Stock Exchange, *National Conference on Management Research*.
- [27] Cahya, IP (2017). Corporate social responsibility, institutional ownership, and managerial ownership of firm value. *Journal of Management Science and Research*, 1-16.
- [28] Siallagan, Hamonangan and Machfoedz, M. 2006. Corporate governance mechanisms, earnings quality and firm value. Presented at the IX Padang National Accounting Symposium (SNA).
- [29] Larasati, E. (2011). The effect of managerial ownership, institutional ownership and dividend policy on the Firm's debt policy. *Journal of Business Economics*, 16(2), 103-107.
- [30] Sartono, RA 2017. *Financial Management Theory and Applications*. Issue 4. BPFE. Yogyakarta.
- [31] Sugiyarso, G., & Winarni, F. (2005). *Financial management*. Yogyakarta: Media Pressindo, 54.
- [32] Utami, SPD, & Ngumar, S. (2019). The Effect of Institutional Ownership, Asset Structure and Profitability on Debt Policy. *Journal of Accounting Science and Research (JIRA)*, 8(1).

- [33] Bramaputra, ED, Musfitria, A., & Triastuti, Y. (2022). The effect of liquidity, leverage, Firm growth, and profitability on dividend policy in food and beverage manufacturing companies listed on the Indonesia Stock Exchange for the period 2013-2015. *El-Mal: Journal of Islamic Economics & Business Studies*, 3(3), 424-439.
- [34] Purnianti, NK and IW Putra. 2016 Analysis of Factors Influencing Non-Financial Firm Debt Policy. *Udayana University Accounting E-Journal* 14(1).
- [35] Sugiyono. 2013. *Qualitative Quantitative Research Methodology and R and D*. Bandung: Alfabeta.
- [36] Maizar, SP, Ita Mustika, SE, Ak, M., CTT, C., Nabella, SD, & SE, M. (2022). *Introduction to Statistics 1*. Indonesian Science Media.
- [37] Harry. 2016. *Financial Ratios For Business*. Grasindo. Jakarta.
- [38] Marhamah, M. (2016). The effect of managerial ownership, institutional ownership, dividend policy, growth, firm size, and asset structure on the debt policy of companies listed on the Stock Exchange. *Journal of Stie Semarang (electronic edition)*, 8(1), 19-35.
- [39] Sudana, I Made. 2011. *Corporate Financial Management Theory & Practice*. Jakarta: Erlangga.
- [40] Zuhria, SF 2016. The Effect of Profitability, Free Cash Flow, Sales Growth, Firm Size on Debt Policy. *Journal of Accounting Science and Research* 5(11). The Effect of Ownership Structure
- [41] Ghozali, I. 2018. *Application of Multivariate Analysis With IBM SPSS Program* 25. Publishing Agency Diponegoro University. Semarang.
- [42] Basuki, Agus Tri. (2017). *Introduction to econometrics (with the use of eviews)*. Yogyakarta: Mitra Pustaka Conscience (MATAN).
- [43] Winarno, Wahyu Wing. 2015. *Econometric and Statistical Analysis with Eviews*, Fourth Edition. Yogyakarta: UPP STIM YKPN
- [44] Bernice, Y. (2015). The Impact of managerial ownership, institutional ownership and Firm size towards debt policy. *Journal of International Conference and Business Economics and Accounting*.
- [45] Fransiska, Y. (2016). The effect of institutional ownership, managerial ownership, and dividend policy on debt policy in manufacturing companies on the Stock Exchange. *Research Journal of Accounting Students*, 4(1).
- [46] Murni, Sri and Andriana., 2007, Effect of insider ownership, institutional investors, dividend payments, and firm growth on corporate debt policy (a case study on manufacturing companies listed on the Jakarta stock exchange), *Journal of Accounting and Business*, Vol. 7, No. 1, February, pp.15 – 24.

- [47] Surya, D., & Rahayuningsih, DA (2018). Factors that influence the debt policy of non-financial companies listed on the Indonesia Stock Exchange. *Journal of Business and Accounting*, 14(3), 213-225.
- [48] Safitri, I. & Fun. (2021). The effect of institutional ownership and free cash flow on debt policy. *Journal of Accounting Science and Research*. 4(7), 1-18.
- [49] Setiana, E & Sibagariang, R. (2013). The effect of free cash flow and managerial ownership on debt policy in manufacturing companies listed on the Indonesian Stock Exchange (IDX). *Journal of Accounting Studies*, 15(1), 16-33.
- [50] Sudarsi, S., Irsad, M., & Kartika, A. (2022). The impact of ownership structure, profitability and firm size on debt policy in manufacturing companies in Indonesia. *Journal of Stie Semarang (Electronic Edition)*, 14(2), 10-22.