

# The Effect of Profitability, Leverage, and Firm Size on Firm Value (Case of Registered Company In Jakarta Islamic Index 2015-2020 period)

Fitri Albani Wahyudi<sup>1</sup>, Muhammad Sholahuddin<sup>2\*</sup>

<sup>1,2</sup>. Faculty of Economics and Business, Universitas Muhammadiyah Surakarta, Indonesia  
Corresponding Author Email: [muhammad.sholahuddin@ums.ac.id](mailto:muhammad.sholahuddin@ums.ac.id)

## ABSTRACT

The aim of this research is to determine the effect of profitability, leverage, and firm size on firm value. The population included in the study are companies listed on the Jakarta Islamic Index for the 2015-2020 period. The sample in this study were 13 companies and analyzed using purposive sampling method and produced 78 research data. The research uses quantitative research because it uses more numbers so that the research is more detailed and clearer. The data analysis used in this research is determining the accuracy of the panel data estimation model, classical assumption test, panel data regression analysis, and hypothesis testing. Research data processing using analysis tool, EvIEWS version 10. The results showed that the profitability and firm size variables partially had no effect on firm value, while the leverage variable partially had a significant positive effect on firm value. But the variables of profitability, leverage, and firm size together or simultaneously affect the firm value.

**Keywords:** Profitability, Leverage, Firm Size, Firm Value, Jakarta Islamic Index.

## 1. INTRODUCTION

Globalization encourages companies to continuously strive to improve their company performance. Company performance can be seen from the value of the company [1]. If the company's performance is higher, the value of the company will also increase. The rapidly growing economy is now making companies more competitive in formulating corporate strategies to make the company value increase properly [2].

Optimal increase in company value can be seen from the company's financial management. The decisions made by financial management can affect other decisions so that they also have an impact on the value of the company. There are factors that can affect financial performance, including leverage or solvency, profitability, firm size, and firm value [3].

All companies have different missions and visions and goals. In this modern era, business competition is getting tougher and growing rapidly [4]. Assisted by technological advances, it is easier for us to find the information we need and even get ideas or innovations to develop the products we have. With the development of an increasingly advanced era, companies are required to

prove the financial working ability of a company. The company's financial results that experience changes in each period will also affect the company's shares. Increasing shares will also affect the value of a growing company.

The company's financial results, which can be seen from the company's financial statements, allow investors to analyze the performance of the company. The state of the company's good performance and efforts to increase the value of the company, as well as various company activities that involve the community will attract people to have more confidence in the company. The value of the company is the most important thing in the assessment of a company. If the value of the company is high, then the prosperity of the shareholders is also high. Perceptions of investors and customers can be seen from the level of success in increasing the value of the company so that investors and customers invest or use the company's products not only for the short term but also for the long term [4].

Profitability is the profit generated by the resources of a company's ability in a certain period. The company's profit position can be seen from the profitability. Companies must be able to make the company's finances

run well and manage them so that the level of profitability does not decrease [5]. The increasing share price is influenced by the increase in the company's profit [6]. An elevated level of profitability shows the company's strength to generate high profits for shareholders.

*Leverage* is a company that measures the ability of funds to use debt, if the company does not have leverage, the company does not use debt but uses its own capital. If the company's economic condition declines, it will have a small risk if the level of leverage is also lower. But if the level of leverage is higher, the risk faced by the company when the company's economic condition declines is also greater because of the greater amount of debt used. In short, the greater the level of leverage, the greater the level of investment risk. A quality company can be seen from the amount of debt from the company and its management. Thus, companies with excellent quality will be clearly visible to the market [6].

The size of the company is described by the total assets that show the size of the company. The greater the total assets, the greater the size of the company and the capital to be invested. Companies with high total assets make it easier for management to use the change assets and can increase the value of the company. The bigger the company, the more attractive investors are to invest [7]. Company Value is a condition that describes the achievement of a company during its operational process. The increase in the value of the company shows the prosperity of the shareholders due to the increase in the value of the company [8].

Companies should improve performance in increasing firm value, especially in profitability, leverage, and firm size because that will be an attraction for investors to invest their shares in the company [9].

The way to find out the company's financial condition is to analyze the company's financial ratios [10]. The companies selected to be studied in this study are companies registered with JII for the 2015-2020 period. Several previous studies have examined profitability, leverage, firm size, and firm value. From these studies, there are many that produce pros and cons in each research studied. From the many pros and cons, the researcher took the title The Effect of Profitability, Leverage, and Firm Size on Firm Value (Case of Companies Listed in the Jakarta Islamic Index 2015-2020 Period).

## 2. RESEARCH METHOD

This research uses quantitative research which from beginning to end includes the type of research that is more structured, systematic, and specific. Quantitative research uses numbers to make research clearer and more detailed. In addition to the use of tables, quantitative

research also uses graphs and diagrams to make it easier to understand in an overview scale. This study uses secondary data types. Secondary data is data or information obtained by researchers indirectly from sources or company websites that already exist on the internet. This research is a comparative study which aims to compare a condition with other conditions, in this study it refers to the financial performance of companies listed on the Jakarta Islamic Index by using data from the bank's annual report as the sample. The financial ratios and sources of financial data in this study were taken from the annual financial statements of companies listed on the Jakarta Islamic Index for the 2015-2020 period which have been published on the official websites of each company.

The sample in this study amounted to 13 companies listed on the Jakarta Islamic Index with annual financial statements for the 2015-2020 period. The population of this study amounted to 30 companies and took a sample of 13 companies with 78 observational data and analyzed using purposive sampling method. There are criteria in sampling are as follows.

- Companies listed on the Jakarta Islamic Index 2021.
- Companies that issue financial reports for the period 2015-2020.
- The company is registered as a public company.
- The company has a share price.

The data analysis used in this research is determining the accuracy of the panel data estimation model, classical assumption test, panel data regression analysis, and hypothesis testing.

## 3. RESEARCH RESULTS

### 3.1. Operational Definition and Measurement of Variables

Company value is the most important thing in a company because a prominent level of company value makes shareholders more prosperous. Firm value can be measured by the ratio of Price to Book Value (PBV). The PBV ratio is useful for calculating the future valuation of the company. Then the higher the PBV ratio, the market will believe in the value of the future life of the company [6].

The following is the formula for the PBV as follows.

$$\text{Price to Book Value} = (\text{Market Price of Shares}) / (\text{Book value per share}) \times 100 \quad (1)$$

Profitability is the profit generated in a certain period of the ability of a company's resources. The calculation in the profitability ratio uses Return on Assets (ROA). Return on Assets is the income available to company

holders for their assets [11]. The ROA formula is as follows.

$$\text{Return On Asset (ROA)} = (\text{Profit after tax}) / (\text{Total Assets}) \quad (2)$$

Leverage is the amount of debt used by the company to measure the ability of the need for funds, if the company has leverage then the company uses its own capital. Leverage is measured by Debt-to-Equity Ratio (DER).

$$\text{Debt to Equity Ratio (DER)} = (\text{Total debt}) / (\text{Total Equity}) \quad (3)$$

The size of the company with larger total assets will also increase the capital to be invested and the size of the company. Firm size is measured by the Natural Logarithm of total assets. The Natural Logarithm formula is as follows.

$$\text{Company Size} = \ln (\text{Total Assets}) \quad (4)$$

### 3.2 Determining the Accuracy of the Panel Data Estimation Model

Based on the results of the Chow test and Hausman test, the accuracy of the estimation model can be seen in the following table.

Table 3.1 Model Accuracy Test Results

Model Accuracy Test	Prob.	P-value (5%)	The right model
Uji Chow	0.0000	0.05	FEM
Uji Hausman	0.7006	0.05	REM

Source: Data processed by the author with the Eviews 10 program, 2021

Based on the results of the Chow test, the probability value of cross-section F is  $0.0000 < 0.05$  meaning  $H_0$  is rejected and  $H_1$  is accepted so that the model approach used is the Fixed Effect Model. Based on the results of the Hausman test, the probability value of a random cross-section is  $0.7006 > 0.05$ , which means that  $H_0$  can be accepted and  $H_1$  is rejected, so that the model approach used is the Random Effect Model. From the results of the two estimation model tests, it is more appropriate to use the Random Effect Model estimation model because from the Fixed Effect Model and the Random Effect Model the best is the Random Effect Model.

### 3.3 Hypothesis Analysis

#### 3.3.1 Data Regression Analysis

Based on the model estimation test that has been carried out, the panel data regression model chosen is the Random Effect Model. Following are the results of data regression analysis.

Table 3.2 Results of Panel Data Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-549.0434	1415.959	-0.387754	0.6993
X1	280.5933	374.1409	0.749967	0.4557
X2	22.94910	8.623816	2.661131	0.0095
X3	22.00763	43.65049	0.504178	0.6156

Source: Data processed by the author with the Eviews 10 program, 2021

The results from the table above can be written in the form of panel data regression as follows.

$$Y = -549.0434 + 280.5933X_{1it} + 22.94910X_{2it} + 22.00763X_{3it} + e$$

The interpretation of the panel data regression equation in table 3.2 is.

- Constant Value ( $\alpha$ ) = -549.0434

The constant value is negative, meaning that when the profitability, leverage, and firm size variables are 0 (zero), the firm value variable is -549.0434.

- Profitability Variable ( $X_1$ ) = 280.5933

The coefficient value of the profitability variable is 280.5933 with a positive value, so every time there is an increase in the profitability variable by one unit, the firm value variable will increase by 280.5933 and vice versa.

- Leverage Variable ( $X_2$ ) = 22.94910

The coefficient value of the leverage variable is 22,94910 with a positive value, then every increase in the leverage variable by one unit will cause the firm value variable to increase by 22,94910 and vice versa.

- Firm Size Variable ( $X_3$ ) = 22.00763

The coefficient value of the firm size variable is 22.00763 with a positive value, so every time there

is an increase in the firm size variable by one unit, the firm value variable will increase by 22.00763 and vice versa.

### 3.3.2 Statistical *t* Test

The *t*-test has a purpose to determine whether the independent variables have a significant effect on the dependent variable. The results of the *t* test can be seen in the following table.

Table 3.3 *t* Test Results

Variable	Prob.	P-value (5%)	Description
X1	0.4557	$P > 0.05$	H <sub>1</sub> rejected
X2	0.0095	$P < 0.05$	H <sub>2</sub> accepted
X3	0.6156	$P > 0.05$	H <sub>3</sub> rejected

Source: Data processed by the author with the Eviews 10 program, 2021

Based on table 4.11 the results of the *t*-test above the results can be explained as follows.

- The first hypothesis in this study is that profitability influences firm value. Profitability results (X<sub>1</sub>) show a probability value of 0.4557 more than 0.05 ( $P > 0.05$ ). This shows that H<sub>1</sub> is rejected, where the profitability variable partially does not have a significant effect on firm value. Thus, H<sub>1</sub> is rejected.
- The second hypothesis in this study is that leverage influences firm value. The results of leverage (X<sub>2</sub>) show a probability value of 0.0095 less than 0.05 ( $P < 0.05$ ). This shows that H<sub>2</sub> is accepted, where the leverage variable partially has a significant positive effect on firm value. Thus, H<sub>2</sub> is accepted.
- The third hypothesis in this study is that firm size affects firm value. The result of firm size (X<sub>3</sub>) shows a probability value of 0.6156 more than 0.05 ( $P > 0.05$ ). This shows that H<sub>3</sub> is rejected, where the firm size variable partially does not have a significant effect on firm value. Thus, H<sub>3</sub> is rejected.

### 3.3.3 Statistical *F* Test

The purpose of the *F* test is to find out whether the independent variables have a joint influence on the dependent variable. This test uses a significance level of 0.10 ( $\alpha = 10\%$ ). The following results from the *F* test can be seen in the table below.

Table 3.4 *F* Test Results

Variable	Prob(F-Statistic)	Criteria	Conclusion
X1, X2, X3	0.063067	$P < 0.10$	Take effect

Source: Data processed by the author with the Eviews 10 program, 2021

Based on the results of the *F* test in table 3.4, the prob (F-statistic) value of 0.063067 means that all independent variables such as profitability, leverage, and company size simultaneously affect the firm value.

### 3.3.4 Coefficient of Determination Test (*R*<sup>2</sup>)

The coefficient of determination test has a purpose, namely, to determine the level of relationship (goodness of fit) between the dependent variable that is influenced by the variable. The results of the coefficient of determination are listed in the table as follows.

Table 3.5 Coefficient of Determination Test Results

R-square	Adjusted R-square	S.E. of regression
0.093286	0.056528	90.75697

Source: Data processed by the author with the Eviews 10 program, 2021

Based on the results of the coefficient of determination test in table 4.13 shows the Adjusted R-square value of 0.056528. This explains that the variation of the firm value variable is explained by the variation of the profitability, leverage, and firm size variables by 5.6528%, while 94,3472% can be explained by other factors outside the regression model.

## 4. DISCUSSION

The estimated firm value (Y) can be influenced by profitability (X<sub>1</sub>), leverage (X<sub>2</sub>), and firm size (X<sub>3</sub>). Based on the results of panel data regression analysis assisted by the Eviews version 10 analysis tool, hypothesis testing has been carried out. The following are the results of the research with the proposed hypothesis.

### 4.1. The Effect of profitability to firm value

Based on the results of research on the profitability variable in testing the first hypothesis, the value of Prob is obtained. of 0.4557 more than 0.05 ( $P > 0.05$ ). This shows that H<sub>1</sub> is rejected, where the profitability variable has no effect on firm value. The high value of the profitability variable is not a measure of the size of the company's value. In other words, the increase in profitability is not a factor causing the increase in firm value but is found in other variables. Shareholders can be a positive influence if the entire company's profitability is not used for retained earnings but is distributed to all shareholders [12].

These results do not agree with the research which states that profitability has a significant positive effect on firm value [13]. However, the results of this study agree

which states that profitability has a negative and insignificant effect on firm value [14].

#### 4.2. The Effect of leverage on firm value

Based on the results of research on the leverage variable in testing the second hypothesis, the value of Prob is obtained of 0.0095 less than 0.05 ( $P < 0.05$ ). This shows that  $H_2$  is accepted, where the leverage variable has a significant positive effect on firm value. Therefore, leverage can affect the value of the company in a positive direction. This means that the greater the leverage value, the greater the investment risk that can affect the value of the company.

These results do not agree with the research which states that leverage has no effect on firm value partially [15]. However, the results of this study agree which states that leverage has a significant positive effect on firm value [6].

#### 4.3. The Effect of firm size on firm value

Based on the results of research on the firm size variable in testing the third hypothesis, the value of Prob is obtained of 0.6156 more than 0.05 ( $P > 0.05$ ). This shows that  $H_3$  is rejected, where the firm size variable has no effect on firm value. The size of a company cannot easily affect the value of the company in investing because for investors the size of the company is not a consideration for investing [16].

These results do not agree with the research which states that the size of the company affects the value of the company [17]. While the results of this study agree with the research which states that the size of the company has no effect on the value of the company [7].

### 5. CONCLUSION

Based on this research, it provides different findings from previous research, namely profitability and firm size variables have no effect on firm value in companies listed on the Jakarta Islamic Index in 2015-2020. While the leverage variable partially had a significant positive effect on firm value. But the variables of profitability, leverage, and firm size together or simultaneously affect the firm value. Suggestions for further researchers in the future are expected to be able to further expand the sampling period and use more and wider variables so that further research can provide answers and new views that are increasingly useful, especially for the company value factor.

### ACKNOWLEDGMENTS

We would like to thank International Conference on Economics and Business Studies of Universitas Muhammadiyah Surakarta in Indonesia, who has funded this research.

### REFERENCES

- [1] R. Pernamasari, F. Melinda, dan J. Mu, "Studi Good Corporate Governance dan Manajemen Laba terhadap Nilai Perusahaan : Perusahaan Jakarta Islamic Index," vol. 4, no. 1, hal. 87–102, 2019.
- [2] H. E. S. Samosir, "Journal of business studies," vol. 2, no. 1, hal. 75–83, 2017.
- [3] I. K. Wardana, N. D. Setiawina, dan G. S. Budiasa, "Pengertian Perbankan," vol. 6, hal. 1785–1810, 2016.
- [4] S. N. Eva Selviana Kurniawati, Kartika Hendra, "Pengaruh Profitabilitas, Ukuran Perusahaan, dan," *e-Journal Ekon. Bisnis dan Akunt.*, vol. V, no. 2015, hal. 81–87, 2018.
- [5] M. Sholahuddin dan Y. Purwaningtyas, "Analisis Data Panel Terhadap Profitabilitas Bank Syariah Di Indonesia," *Proceeding Of The Urecol*, hal. 233–242, 2018.
- [6] N. Wulandari dan I. Wiksuana, "Peranan Corporate Social Responsibility Dalam Memoderasi Pengaruh Profitabilitas, Leverage Dan Ukuran Perusahaan Terhadap Nilai Perusahaan," *E-Jurnal Manaj. Univ. Udayana*, vol. 6, no. 3, hal. 255186, 2017.
- [7] D. D. A. W. S. H. G. Wiyono, "Pengaruh Profitabilitas Leverage dan Ukuran Perusahaan Yang Tergabung Dalam LQ45 Pada Periode 2015-2018," *J. Chem. Inf. Model.*, vol. 2, no. 1, hal. 216–224, 2019.
- [8] M. Sholahuddin, A. N. Pradana, dan H. A. Awangrif, "Pengaruh Profitabilitas , Leverage Dan Kebijakan Deviden Terhadap Nilai Perusahaan ( Systemic Literature Review )," *Univ. Res. Colloquium*, hal. 1–10, 2020.
- [9] M. Sholahuddin dan Z. M. Jannah, "A Panel Data Analysis of Earnings Growth Determinants in Jakarta Islamic Index," hal. 385–394, 2021.
- [10] A. Budiono, "Penerapan Prinsip Syariah Pada Lembaga Keuangan Syariah," *Law Justice*, vol. 2, no. 1, hal. 54–65, 2017, doi:

10.23917/laj.v2i1.4337.

- [11] E. Harisa, M. Adam, dan I. Meutia, "Effect of Quality of Good Corporate Governance Disclosure, Leverage and Firm Size on Profitability of Islamic Commercial Banks," *Int. J. Econ. Financ. Issues*, vol. 9, no. 4, hal. 189–196, 2019, doi: 10.32479/ijefi.8157.
- [12] D. A. M. Savitri, D. Kurniasari, dan A. Mbiliyora, "Pengaruh Profitabilitas dan Ukuran Perusahaan terhadap Nilai Perusahaan dengan Struktur Modal sebagai Variabel Intervening (Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia tahun 2017-2019)," *J. Akunt. dan Pajak*, vol. 21, no. 02, hal. 500–507, 2021, doi: 10.29040/jap.v21i02.1825.
- [13] F. L. Radja dan L. G. S. Artini, "The Effect Of Firm Size, Profitability and Leverage on Firm Value (Study on Manufacturing Companies Sector Consumer Goods Industry Listed in Indonesian Stock Exchange Period 2017-2019)," *Int. J. Econ. Manag. Stud.*, vol. 7, no. 11, hal. 18–24, 2020, doi: 10.14445/23939125/ijems-v7i11p103.
- [14] V. U. Grandy Tarima, Tommy Parengkuan, "Pengaruh Profitabilitas, Keputusan Investasi Dan Keputusan Pendanaan Terhadap Nilai Perusahaan Farmasi Yang Terdaftar Di Bei Periode 2011-2014," *J. Berk. Ilm. Efisiensi*, vol. 16, no. 4, hal. 465–474, 2016.
- [15] T. Jiarni dan S. D. Utomo, "Nilai Perusahaan: Leverage, Profitabilitas Dan Ukuran Perusahaan," *JUARA J. Ris. Akunt.*, vol. 9, no. 2, hal. 92–99, 2019.
- [16] H. Wiranata, "Pengaruh Profitabilitas, Ukuran Perusahaan, Dan Kepemilikan Institusional Terhadap Nilai Perusahaan Manufaktur," *Pengaruh Profitab. Ukuran ...*, vol. 2, no. 1, hal. 254–261, 2020.
- [17] A. Husna dan I. Satria, "Effects of Return on Asset, Debt To Asset Ratio, Current Ratio, Firm Size, and Dividend Payout Ratio on Firm Value," *Int. J. Econ. Financ. Issues*, vol. 9, no. 5, hal. 50–54, 2019, doi: 10.32479/ijefi.8595.