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The Effect of Liquidity, Leverage, and Profitability on Firm Value: Empirical Evidence from Indonesia

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Abstract

This study aims to examine the effect of liquidity, activity, leverage, and profitability on firm value, as well as the effect of disclosure of corporate social responsibility (CSR), which in this study is a moderator and company size as a control variable. The sampling technique used in this study is a purposive sampling method with certain criteria, to obtain a sample of 22 LQ45 index companies listed on the Indonesia Stock Exchange in 2014–2019. The data analysis method in this study used was the Multiple Linear Regression Analysis with the SPSS 18 Program. The results show that the ratios of liquidity, activity, leverage, and profitability are significant to firm value in accordance with the initial hypothesis of the study. Corporate Social Responsibility (CSR) plays a role as a moderating variable and company size variable as a control variable on the effect of financial ratios (liquidity, activity, leverage, and profitability) on firm value. The implication of this research is that CSR has a very important role in increasing company value. To attract more investors, companies must pay attention not only to financial performance but also to social performance. Large-scale companies tend to do more CSR so that the company value will increase.

Keywords: Financial Ratio, Corporate Social Responsibility, Firm Value, Firm Size

JEL Classifications Code: G30, M14, M21, M41

1. Introduction

A competitive advantage is an attribute that enables a company to outperform its competitors. This allows

a company to achieve superior margins compared to its competition and generates value for the company and its shareholders. A competitive advantage distinguishes a company from its competitors. It contributes to higher prices, more customers, and brand loyalty. Establishing such an advantage is one of the most important goals of any company. In today's world, it is essential to business success. Without it, companies will find it difficult to survive. Competitive advantage is maintained to achieve the company's goals, namely the welfare of shareholders, which can be achieved by optimizing company value. The value of the company can be reflected by the share price. The increase in company value is usually marked by an increase in the stock price in the market and vice versa. A company's stock price reflects investor perception of its ability to earn and grow its profits in the future. The ups and downs of stock prices can be influenced by the condition and financial position of each company which often changes every period.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given

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period (Fatihudin et al., 2018). A Financial Performance Report is a summary of the Financial Performance of a Company that reports the financial health of a company helping various investors and stakeholders take their investment decision. A healthy company is a company that has a good financial performance, therefore, the company value is high. A high company value will attract investors to invest in the company as such there will be an increase in stock prices, and when the company's financial performance is bad it will cause a decline in stock prices (Harningsih et al., 2019).

Firm value is an economic concept that reflects the value of a business. It is the value that a business is worthy of at a particular date. Theoretically, it is an amount that one needs to pay to buy/take over a business entity. Financial performance reflects the company's ability to manage and allocate its resources. There is a statistically significant impact of financial performance on firm value. The good financial performance of the company is the primary consideration by investors in making investment decisions. Improved financial performance is expected to increase the firm value, so that the higher the financial performance, the higher the firm value (Widagdo et al, 2020). The Modigliani and Miller (1958) theorem state that a company's capital structure is not a factor in its value. Market value is determined by the present value of future earnings. The valuation of a company is irrelevant to its capital structure. It is also irrelevant, to whether the company is highly leveraged or low debt because of its market value. It depends only on the operating profits of the company. This theory is also called as capital structure irrelevance principle.

The measuring instrument used in assessing financial performance is the financial ratio method. Financial ratio analysis is performed by comparing two items in the financial statements. The resulting ratio can be interpreted in a way that is more insightful than looking at the items separately. Financial ratios can be classified into ratios that measure: (1) profitability, (2) liquidity, (3) management efficiency, (4) leverage, and (5) valuation and growth (Syamsuddin, 2009). In this study, for the purpose of financial ratio analysis, we use four ratios, namely liquidity ratios, activity ratios, leverage ratios, profitability ratios. The reason for using four ratios is because one ratio alone is not sufficient to provide an assessment of the company's financial condition and performance.

Many previous researchers have conducted theoretical studies regarding the effect of financial ratios on firm value. Kurnia et al. (2020) stated that financial ratios have an effect on firm value, while Husna and Satria (2019) stated that Return on Asset (ROA) has an effect firm value, while Debt to Asset Ratio (DAR) and Current Ratio (CR) does not affect firm value.

Firm value is not only influenced by financial aspects. Corporate Social Responsibility (CSR) CSR is becoming more important for investors because they are more concerned about where and how their money is invested. Business goals are inseparable from the environment and society in which they operate and the failure to perform long-term social and environmental makes a business unsustainable. CSR can be understood as a concept of management and a process whereby companies merge social and environmental concerns in their businesses and relationships with stakeholders. Previously, CSR disclosure in the company's annual report was voluntary, but now it has become a mandatory disclosure. CSR is related to company value because this activity can affect people's preferences for the company. Kim et al. (2018) stated that CSR has a positive influence on firm value, but Hafez (2016) proved that CSR has an insignificant negative effect on firm value and a significant positive effect on firm' financial performance measured by Return on Assets (ROA) and Return on equity (ROE).

Another factor that can affect firm value is firm size. The size of a business unit means the size of a business firm. It means the scale or volume of operation turned out by a single firm. The study of the size of a business is important because it significantly affects the efficiency and profitability of the firm (Putra & Lestari, 2016). According to Signaling theory, size has a role to increase company value. Sudiyatno et al. (2020) stated that firm size has a significant positive effect on firm value but Hirdinis (2019) stated the opposite. One of the indexes that are actively traded on the Indonesia Stock Exchange is the LQ-45 index. LQ45 is a stock market index for the Indonesia Stock Exchange (IDX). The LQ45 index consists of 45 companies that have stocks with high liquidity, large market capitalization, and fairly good stock fundamentals.

The position of the company for each period will be different; there will be those who remain, but some will enter and leave the LQ45 list. Usually every year February till August, the IDX issues the latest LQ 45 list. LQ-45 has a big enough role in boosting the Jakarta Composite Index (JCI) increase which will affect the overall stock exchange performance. The performance of stock instruments in 2019 was generally under pressure. Even though several stocks fell, some of the leading stocks that were members of the LQ45 index shot up to more than 50%. In 2019, the performance of the LQ45 stock index from the beginning of the year to the end of the year had increased by 1.86%, ahead of the Jakarta Composite Index (IHSG) which grew only by 0.28% over the same period. 5 stocks in the LQ45 index had increased by more than 50%, which included the chemical industry, advertising media, Islamic banking, and telecommunications (Muamar, 2019).

Based on the phenomena that have been stated and referring to the results of several previous studies which show mixed and inconsistent results, this study aims to examine and analyze the effect of financial ratios as measured by the profitability ratio (Return on Equity (ROE)), liquidity (Current Ratio (CR)), leverage (Debt To Equity Ratio (DER)) and activity (Inventory Turnover) on company value with Corporate Social Responsibility (CSR) as the moderating variable and company size as the control variable.

2. Literature Review

2.1. Firm Value

Firm value is the investor's perception of the success of a company. This is reflected in the company's share price. The increase in stock prices shows investor confidence in the company. They are willing to pay more to get a higher profit. High stock prices can provide a good signal to attract investors' interest in making investment decisions (Ifada et al., 2019). One of the ways to measure the value of shares is the Price Book Value (PBV). PBV is the ratio of the market value of a company's shares (share price) over its book value of equity. The book value of equity, in turn, is the value of a company's assets expressed on the balance sheet. PBV ratio provides a valuable reality check for investors seeking growth at a reasonable price and is often looked at in conjunction with return on equity (ROE), a reliable growth indicator. The higher PBV ratio causes the company value to be higher.

2.2. Financial Ratio

Four financial ratios can be used in analyzing a company's financial statements (Brigham & Houston, 2010; El-Dalabeeh, 2013), namely:

Liquidity ratio. The ratio that describes the company's ability to meet short-term obligations (debt). In this study, it is proxied by the current ratio. The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year. It tells investors and analysts how a company can maximize the current assets on its balance sheet to satisfy its current debt and other payables. This is a comparison between the total current assets and liabilities owned by the company.

Solvency or Leverage ratio. According to Kasmir (2016), the solvency ratio or leverage ratio is a ratio used to measure the extent to which the company's assets are financed with debt. The leverage ratio is reflected by the Debt to Equity Ratio (DER). The DER ratio compares a company's total liabilities to its shareholder equity and can be used to evaluate how much leverage a company is using.

Higher leverage ratios tend to indicate a company or stock with higher risk to shareholders.

Activity ratio. The activity ratio is a ratio used to measure the effectiveness of a company by using its assets. In this study, the activity ratio is reflected by the inventory turnover ratio. Inventory turnover is a ratio that measures the number of times inventory is sold or consumed in a given time period. It measures a company's efficiency in managing its stock of goods.

Profitability ratio. A profitability ratio shows how well a company utilizes its assets to produce profit and value to shareholders. Profitability ratios indicate a company's ability to generate earnings against cost during a given period. The ratios reveal how well a company is making use of its assets to generate a profit. Return on assets (ROA) is a profitability ratio that provides how much profit a company can generate from its assets.

2.3. Corporate Social Responsibility

Corporate Social Responsibility is (CSR) a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is understood as being the way through which a company achieves a balance of economic, environmental, and social imperatives, while at the same time addressing the expectations of shareholders and stakeholders. In this sense, it is important to distinguish CSR, which can be a strategic business management concept, and charity, sponsorships, or philanthropy CSR disclosure is measured by the CSR disclosure index (CSRDI) which refers to the global reporting initiative indicator (GRI). The GRI indicator consists of three disclosure namely economic, environmental, and social as the basis for sustainability reporting. The GRI Standards create a common language for organizations – large or small, private or public – to report on their sustainability impacts consistently and credibly. This enhances global comparability and enables organizations to be transparent and accountable. The measurement of CSRDI refers to Tan et al. (2016) who examined the effect of firm size on corporate social responsibility (CSR) disclosure and its impact on investor reaction. The result reveals that firm size has a significant effect on CSR disclosure.

2.4. Firm Size

Company size is a determinant of company profits. Companies with large assets will use the available resources as much as possible to generate maximum business profits and companies with small assets will also generate profits according to their resources. Company size can be expressed in terms of total assets, sales, and market capitalization.

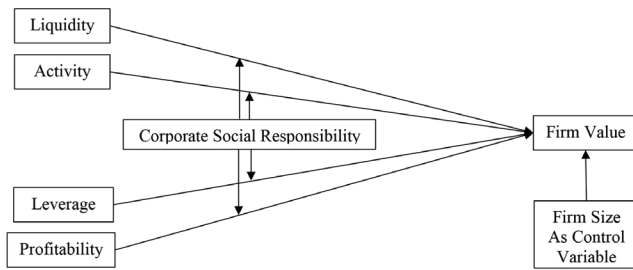


Figure 1: Research Framework

Table 1: Hypothesis

Hypothesis	Supporting Research
H1: Liquidity has an effect on firm value	Batten and Vo (2019), Sondakh (2019)
H2: Activities affect firm value	Nurlaela et al. (2019) and Kristi and Yanto (2020)
H3: Leverage affects firm value	Ibrahim and Isiaka (2020), Al-Slehat (2020)
H4: Profitability affects firm value	Tui et al. (2017), Paramitha (2020)
H5: Liquidity affects firm value with Corporate Social Responsibility as a moderating variable	Putra and Astika (2019), Rafid et al. (2017)
H6: Activities affect firm value with Corporate Social Responsibility as a moderating variable	Santosa (2020), Kristi and Yanto (2020)
H7: Leverage affects firm value with Corporate Social Responsibility as a moderating variable	Wulandari and Wiksuana (2017), Itsnaini and Subardjo (2017)
H8: Profitability affects firm value with Corporate Social Responsibility as a moderating variable	Siregar et al. (2018), Winarso and Christina. (2019)
H9: Liquidity, Activity, Leverage, and Profitability affect firm value with Corporate Social Responsibility as a moderating variable and Company Size as a control variable	Luthfiah and Suherman (2018), Fajaria and Isnalita (2018)

The proxy for company size is measured by the book value of total assets. Due to the large value of the company’s assets, it is calculated in millions of rupiah and converted into a natural logarithm (Ln) (Hirdinis, 2019; Setiadharna & Machali, 2017).

3. Methodology

In this research, we use correlational quantitative statistical methods that measure the influence between two or more variables. Correlation analysis is a statistical method used to evaluate the strength of the relationship between two quantitative variables. A high correlation means that two or more variables have a strong relationship with each other, while a weak correlation means that the variables are hardly related. The population of this research is all LQ45 index companies listed on the Indonesia Stock Exchange from 2014 to 2019. Researchers use purposive sampling when they want to access a particular subset of people, as all participants of a study are selected because they fit a particular profile. The sampling technique used in this research was purposive sampling with the criteria that the company was still listed in the LQ45 index during the study period and had all the data needed in the study. The data used in this research is secondary data in the form of the company’s annual financial statements obtained from www.idx.co.id. The method of data analysis in this study used Multiple Linear Regression Analysis with the SPSS 18 Program. The operational definition of the variables in this study can be seen in Table 2.

4. Results

The classical assumption test is a requirement that must be met before performing multiple linear regression analysis. The classical assumption test is a statistical test used to determine the relationship between variables, including multicollinearity test, heteroscedasticity test, autocorrelation test, normality test, and linearity test. The results of the calculations from the classical assumption test can be described as follows:

4.1. Classical Assumption Test

4.1.1. Normality Test

The normality test uses the Kolmogorov-Smirnov test, namely if the significance value is >0.05 , the regression model is normally distributed. The Kolmogorov-Smirnov test is used to decide if a sample comes from a population with a specific distribution, that is, it is commonly used as a test for normality to see if your data is normally distributed. The results of the normality test state that the variables studied were normally distributed because of the significance value ($0.318 > 0.05$).

Table 2: Operational Definition of Variables

Variable	Definition	Formulas
Firm Value	investors' assessment of how well the company is performing which is often related to stock prices	$PBV = \frac{\text{Market price per share}}{\text{Book value per share}}$ $\text{Tobin's } Q = \frac{EMV + D}{EBV + D}$ $EPS = \frac{\text{Total Earnings}}{\text{Outstanding Shares}}$
Liquidity	the company's ability to meet its short-term debt (maturities of less than one year) using current assets	$CR = \frac{\text{Current Asset}}{\text{Current Liabilities}}$
Activity	measure the effectiveness of the company's activities in utilizing its inventory to generate sales	$ITO = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$
Leverage	the large or small amount of debt used by a company that is used to finance its operational activities	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$
Profitability	The level of net profit that can be achieved by the company when running its operations.	$ROA = \frac{\text{Earning After Tax(EAT)}}{\text{Total Asset}}$
CSR	The responsibility of the company as an impact of a decision and activities in the community and the environment, as measured by the corporate social disclosure index (CSDI)	$CSRDI_j = \frac{\sum X_{ij}}{n_j}$
Firm Size	The size of the total assets owned by the company	Firm Size = Ln (Total Asset)

4.1.2. Multicollinearity Test

The multicollinearity test aims to test the correlation between independent variables in the regression model. VIF to measure multicollinearity ranges between 1 and 2 indicating the absence of multicollinearity. Multicollinearity is a problem in regression analysis that occurs when two independent variables are highly correlated. The relationship between the independent variables and the dependent variables is distorted by the very strong relationship between the independent variables, leading to the likelihood that our interpretation of relationships will be incorrect.

Variance inflation factor (VIF) is a measure of the amount of multicollinearity in a set of multiple regression variables. Values of VIF that exceed 10 are often regarded as indicating multicollinearity, but in weaker models values above 2.5 may be a cause for concern. The multicollinearity test results show that there are no independent variables that have a Tolerance value of more than 0.10. The results of the calculation of the VIF value show there are no independent variables that have a VIF value of more than 10. So, it can be concluded that there is no multicollinearity between the independent variables in this regression model.

4.1.3. Heteroscedasticity Test

If there is a particular pattern in the SPSS Scatterplot Graph, such as the points that form a regular pattern, it can be concluded that there has been a problem of heteroscedasticity. Conversely, if there is no clear pattern, and spreading dots, then the indication is no heteroscedasticity problem. The scatter plot test also reveals a random position of each data, signifying the no heteroskedasticity in the data. Heteroscedasticity testing was carried out using a scatter plot. The results of the heteroscedasticity test show a clear pattern and dots spread above and below the number 0 on the Y axis, meaning that there is no heteroscedasticity in the regression model. Some data appear to be clustered due to the large number of data studied. This shows that the regression model in this study is suitable for use.

4.1.4. Autocorrelation Test

The Durbin Watson Test is a measure of autocorrelation. The Durbin-Watson statistic will always have a value between 0 and 4. Values from 0 to less than 2 indicate positive autocorrelation and values from 2 to 4 indicate negative autocorrelation.

The autocorrelation test aims to determine whether or not there is a correlation deviation that occurs between the residual period t and period $t-1$ (previous). The autocorrelation test method uses the Durbin Watson test. The results from the autocorrelation test show that the Durbin-Watson value is 1,964, the dU value is 1.80622, the dL value is 1.58322, and the $4-dU$ value = 2.24. The results of the Durbin-Watson test show that the value of $dU < dW < 4-dU = 1.80622 < 1.964 < 2.19378$, so it means that autocorrelation does not occur in this regression model.

4.2. Multiple Linear Regression Analysis

The data process uses multiple linear regression analysis which aims to measure the strength of the relationship between two or more variables. Based on the results of data processing using SPSS version 18.0 software, the results are as shown in table 3 below:

From the results of multiple linear regression analysis in table 3 above, it can be seen that the multiple regression equation is as follows:

$$\begin{aligned} \text{Firm Value} = & -7.521 + 0.070 \text{ ROA} + 0.488 \text{ CR} \\ & + 0.020 \text{ ITO} + 0.320 \text{ DER} + 2.516 \text{ CSRI} \\ & - 0.759 \text{ ROA} * \text{CSRI} - 0.030 \text{ CR} * \text{CSRI} \\ & + 0.563 \text{ ITO} * \text{CSRI} + 0.168 \text{ DER} * \text{CSRI} + e \end{aligned}$$

$$\begin{aligned} \text{Firm Value} = & -6.452 + 0.049 \text{ ROA} + 0.400 \text{ CR} \\ & + 0.019 \text{ ITO} + 0.325 \text{ DER} + 1.769 \text{ CSRI} \\ & - 0.635 \text{ ROA} * \text{CSRI} - 0.028 \text{ CR} * \text{CSRI} \\ & + 0.497 \text{ ITO} * \text{CSRI} + 0.149 \text{ DER} * \text{CSRI} \\ & + 0.040 \text{ SIZE} + e \end{aligned}$$

4.3. Hypothesis Testing

4.3.1. Direct Effect

Based on Table 3 it can be seen that direct testing of hypotheses 1 to 4 is accepted as they have a significant effect. Financial ratios as reflected by 4 indicators, namely liquidity, activity, leverage, and profitability affect firm value. Liquidity has a positive effect on firm value, which means that the higher the liquidity ratio of a company, the higher the company's liabilities that are borne by current assets, thus increasing public confidence. The results of this study indicate that there is a positive effect of liquidity on firm value which is supported by research conducted by Nguyen et al. (2016), Rizki et al. (2018), and Sondakh (2019). The firm value variable is also influenced by the activity variable. The results of this research can be concluded that there is a positive influence between the activity ratios and firm value, so that if the company has a high activity ratio, the better the value of the company. This result is supported by research conducted by Nyeadi et al. (2018), Santosa (2020), and Kristi and Yanto (2020).

The firm value that is formed through stock market value is affected by investment opportunities that are considered by potential investors. A leverage ratio is one of several financial measurements that assesses the ability of a company to meet its financial obligations. A good leverage ratio will affect public confidence in a company, thereby increasing company value. The results of this study indicate that there is a positive influence between leverage and firm value, therefore, the higher the leverage ratio, the higher the firm value. These results are supported by research conducted by Adenugba et al. (2016) and Santosa (2020).

Table 3: Results of Multiple Linear Regression Analysis

Variable	Without Control Variable			With Control Variable			
	Coefficient	t	Sig.	Coefficient	t	Sig.	Description
(Constant)	-7.521	-4.206	0.000	-6.452	-3.636	0.000	
ROA	0.070	13.886	0.000	0.049	5.419	0.000	Significant
CR	0.488	5.057	0.000	0.400	4.067	0.000	Significant
ITO	0.020	2.019	0.046	0.019	2.059	0.042	Significant
DER	0.320	5.600	0.000	0.325	5.868	0.000	Significant
CSRI	2.516	6.179	0.000	1.769	3.712	0.000	Significant
ROA x CSRI	-0.759	-4.718	0.000	-0.635	-3.919	0.000	Significant
CR x CSRI	-0.030	-2.926	0.004	-0.028	-2.788	0.006	Significant
ITO x CSRI	0.563	2.549	0.012	0.497	2.308	0.023	Significant
DER x CSRI	0.168	3.115	0.002	0.149	2.813	0.006	Significant
SIZE	-	-	-	0.040	2.789	0.006	Significant

The financial performance of a company is described as high ROA an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. The results of this study indicate that there is a positive effect of ROA on firm value, therefore, the higher the ROA, the higher the firm value. The same thing was expressed in research conducted by Fajaria and Isnalita (2018), Tui et al. (2017), and Sari and Sedana (2020).

4.3.2. Indirect Effect

4.3.2.1. Hypothesis Testing with Moderating Variable

Based on Table 3, the results state that CSR is proven to mediate the effect of the financial ratio on firm value. CSR disclosure is expected to give a positive impression to investors, that the company shows its concern for the environment and society. The higher the current ratio (CR), the higher the company's ability to pay off its short-term obligations. A high level of liquidity will increase the demand for shares and this will increase company value. This research is supported by the results of research conducted by Rafid et al. (2017), Putra and Astika (2019).

The greater the activity ratio, the more efficient the use of all company assets in generating profits. High profits will attract investors to invest, thereby increasing the firm value. The existence of CSR has a very important role in increasing company value as a result of increasing company sales because of conducting various social activities in the surrounding environment. The results of the research reinforce the research conducted by Nyeadi et al. (2018) Santosa et al. (2020), and Kristi (2020).

Based on the signal theory, companies with good quality will deliberately give signals to the market, thus the market is expected to differentiate between good and bad quality companies. Even though the level of debt owned by the company is high, there is a good relationship between the company and debtholders and the company is able to increase company value. This research is supported by the results of research conducted by Wulandari and Wiksuana (2017) who stated that CSR as a moderating variable can strengthen the effect of leverage on firm value.

The position of CSR here weakens the relationship between profitability and firm value. Investors do not pay attention to CSR as a basis for making decisions to invest in a company. The implementation of CSR causes an increase in the company's expenses, thereby reducing the company's profitability which results in a decrease in dividend distribution for investors. The results of this study are in line with research conducted by Dewi and Suputra (2019) who stated that disclosure of CSR weakens the effect of financial performance on firm value, therefore, CSR moderates the effect of profitability on firm value.

4.3.2.2. Hypothesis Testing with Control Variable

Based on Table 3, it can be seen that company size as a control variable has a coefficient value of 0.040 with a probability value of 0.006 smaller than 0.05. It can be concluded that company size has a positive and significant effect at a 5% significance level. This is in line with research conducted by Rudangga and Sudiarta (2016) who stated that company size has a significant positive effect on firm value. This result is also in accordance with the signaling theory which states that the company has a positive influence on firm value. Companies with high total assets indicate that the company has positive cash flow and has good prospects for a relatively long period of time. Firm size as a control variable weakens the effect of profitability, liquidity, activity, and CSR on firm value as indicated by a decrease in the coefficient. In terms of leverage on firm value, the role of company size as a control variable is strengthening based on an increasing coefficient.

5. Conclusion

This study aims to examine the effect of liquidity, activity, leverage, and profitability on firm value, as well as the effect of disclosure of corporate social responsibility (CSR) which in this study is a moderator and firm size as a control variable. Based on data analysis and discussion of 22 sample companies listed on the LQ45 index from 2014–2019, it can be concluded that the liquidity, activity, leverage, and profitability ratios are significant to firm value in accordance with the initial hypothesis of the study.

Statistical results and discussion of the role of CSR as a moderating variable found that CSR can moderate the effect of liquidity, activity, leverage, and profitability on firm value. The effect of CSR as a Quasi-Moderating variable on the effect of the ratios of profitability and liquidity on firm value, CSR as a moderating variable can strengthen the effect of activity and leverage on firm value.

The firm size variable acts as a control variable on the effect of liquidity, activity, leverage, and profitability on firm value with CSR as a moderating variable.

References

- Adenugba, A. A., Ige, A. A., & Kesinro, O. R. (2016). Financial leverage and firms' value: A study of selected firms in Nigeria. *European Journal of Research and Reflection in Management Sciences*, 4(1), 14–32. [dpublications.org/wp-content/uploads/2016/01](https://doi.org/10.5539/ibr.v13n1p109)
- Al-Slehat, Z. A. F. (2020). Impact of financial leverage, size and assets structure on firm value: evidence from the industrial sector, Jordan. *International Business Research*, 13(1), 109–120. <https://doi.org/10.5539/ibr.v13n1p109>
- Batten, J., & Vo, X. V. (2019). Liquidity and firm value in an emerging market. *The Singapore Economic Review*, 64(2), 365–376. <https://doi.org/10.1142/S0217590817470063>

- Brigham, E. F., & Houston, J. F. (2010). *Fundamentals of financial management* (11th ed.). Mason, OH: Cengage Learning.
- Dewi, N. M. L., & Suputra, I. D. G. D. (2019). The effect of profitability and leverage on company value with corporate social responsibility as a moderating variable. *E-Journal of Accounting*, 28, 26–54. <https://doi.org/10.24843/EJA.2019.v28.i01.p02>.
- El-Dalabeeh, A. (2013). The role of financial analysis ratio in evaluating performance: A case study of the national chlorine industry. *Interdisciplinary Journal of Contemporary Research In Business*, 13–28. <https://journal-archieives33.webs.com/13-28.pdf>
- Fajaria, A. Z., & Isnalita, N. (2018). The effect of profitability, liquidity, leverage, and firm growth of firm value with its dividend policy as a moderating variable. *International Journal of Managerial Studies and Research*, 6(10), 55–69. <http://repository.unair.ac.id/76444/>
- Fatihudin, D., Jusni, & Mochklas, M. (2018). How to measure financial performance. *International Journal of Civil Engineering and Technology (IJCIET)*, 6(9), 553–557. http://www.iaeme.com/MasterAdmin/UploadFolder/IJCIET_09_06_063/IJCIET_09_06_063.pdf
- Hafez, H. M. (2016). Corporate social responsibility and firm value: An empirical study of an emerging economy. *Journal of Governance and Regulation*, 5(4), 40–53. https://doi.org/10.22495/jgr_v5_i4_p3
- Harningsih, S., Agustin, H., & Setiawan, M. A. (2019). The effect of financial performance on firm value with CSR disclosure and dividend policy as moderation variables. *Ranah Research: Journal of Multidisciplinary Research and Development*, 1(2), 199–209. <https://jurnal.ranahresearch.com/index.php/R2J/article/view/41>
- Hirdinis, M. (2019). Capital structure and firm size on firm value moderated by profitability. *International Journal of Economics and Business Administration*, 7(1), 174–191. <https://pdfs.semanticscholar.org>
- Husna, A., & Satria, I. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50. <https://doi.org/10.32479/ijefi.8595>
- Ibrahim, U. A., & Isiaka, A. (2020). Effect of financial leverage on firm value: Evidence from selected firms quoted on the Nigerian stock exchange. *European Journal of Business and Management*, 12(3), 3–16. <https://doi.org/10.7176/EJBM/12-3-16>
- Ifada, L. M., Faisal, F., Ghozali, I., & Udin, U. (2019). Company attributes and firm value. Evidence from companies listed on Jakarta Islamic index. *Revista Espacios*, 40(37), 11. <https://www.revistaespacios.com/a19v40n37/19403711.html>
- Itsaini, H. M., & Subardjo, A. (2017). The effect of profitability and solvency on firm value is moderated by corporate social responsibility. *Journal of Accounting Science and Research (JIRA)*, 6(6), 41–63. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/490>
- Kasmir. (2016). *Financial statement analysis*. Jakarta, Indonesia: PT. Raja Grafindo Persada.
- Kim, W. S., Park, K., & Lee, S. H. (2018). Corporate social responsibility, ownership structure, and firm value: Evidence from Korea. *Sustainability*, 10(7), 2497. <https://doi.org/10.3390/su10072497>
- Kristi, N. M., & Yanto, H. (2020). The Effect of Financial and Non-Financial Factors on Firm Value. *Accounting Analysis Journal*, 9(2), 131–137. <https://doi.org/10.15294/aaj.v9i2.37518>
- Kurnia, P., Darlis, E., & Putra, A. A. (2020). Carbon emission disclosure, good corporate governance, financial performance, and firm value. *Journal of Asian Finance, Economics, and Business*, 7(12), 223–231. <https://doi.org/10.13106/jafeb.2020.vol7.no12.223>
- Luthfiah, A. A., & Suherman, S. (2018). The effects of financial performance toward firm value with ownership structure as moderating variable: The study on manufacturing companies listed in Indonesia stock exchange in the period of 2012-2016). *Journal of Business and Behavioural Entrepreneurship*, 2(1), 18–27. <https://doi.org/10.21009/JOBBE.002.1.03>
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261–297. <https://www.jstor.org/stable/1809766>
- Muamar, Y. (2019). *Sadistic! 5 LQ 45 shares give more than 50% Cuan*. CNBC Indonesia. <https://www.cnbcindonesia.com/market/20191217111346-17-123666/sadis-5-saham-lq-45-beri-cuan-lebih-dari-50>
- Nguyen, T., Duong, H. N., & Singh, H. (2016). Stock market liquidity and firm value: An empirical examination of the Australian market. *International Review of Finance*, 16(4), 639–646. <https://doi.org/10.1111/irfi.12082>
- Nurlaela, S., Mursito, B., Kustiyah, E., Istiqomah, I., & Hartono, S. (2019). Asset turnover, capital structure, and financial performance consumption industry company in Indonesia Stock Exchange. *International Journal of Economics and Financial Issues*, 9(3), 297–301. <https://doi.org/10.32479/ijefi.8185>
- Nyeadi, J. D., Ibrahim, M., & Sare, Y. A. (2018). Corporate social responsibility and financial performance nexus. *Journal of Global Responsibility*, 9(4), 2041–2068. <https://doi.org/10.1108/JGR-01-2018-0004>
- Paramitha, P. D. P. (2020). The role of profitability in mediating the effect of capital structure and liquidity on firm value in food and beverage sub-sector in Indonesian stock exchange. *Journal of Economics & Business*, 7(2), 80–91.
- Putra, A. A. N. D. A., & Astika, B. (2019). The effect of corporate social responsibility disclosure on company value with liquidity as a moderation variable. *E-Journal of Accounting*, 26(1), 30–57.
- Putra, A. A. N. D. A., & Lestari, P. V. (2016). The effect of dividend policy, liquidity, profitability, and company size on firm value. *Management E-Journal of Udayana University*, 5(7), 4044–4070. <https://media.neliti.com/media/publications/253133-pengaruh-kebijakan-dividen-likuiditas-pr-3fa88dfa.pdf>

- Rafid, A., Pohan, A., & Noor, I. (2017). The effect of financial performance on firm value with disclosure of corporate social responsibility as a moderating variable. *Accounting Journal of Trisakti*, 4(2), 245–258. doi: <http://dx.doi.org/10.25105/jat.v4i2.4838>
- Rizki, Z. W., Mochammad, D., & Mangesti, R. S. (2018). The effects of profitability, liquidity on capital structure and firm value: A study of property and real estate companies listed on Indonesia stock exchange in 2013–2015. *Eurasia: Economics & Business*, 2(8). <https://doi.org/10.18551/econeurasia.2018-02>
- Rudangga, I. G. N. G., & Sudiarta, G. M. (2016). The influence of company size, leverage, and profitability on firm value. *Management E-Journal of Udayana University*, 5(7), 18–27. <https://ojs.unud.ac.id/index.php/Manajemen/article/view/21920>
- Santosa, P. W. (2020). The moderating role of firm size on financial characteristics and Islamic firm value at the Indonesian equity market. *Business: Theory and Practice*, 21(1), 391–401. <https://doi.org/10.3846/btp.2020.12197>
- Sari, I. A. G. D. M., & Sedana, I. B. P. (2020). Profitability and liquidity on firm value and capital structure as an intervening variable. *International Research Journal of Management, IT and Social Sciences*, 7(1), 116–127. <https://doi.org/10.21744/irjmis.v7n1.828>
- Setiadharna, S., & Machali, M. (2017). The effect of asset structure and firm size on firm value with capital structure as an intervening variable. *Journal of Business & Financial Affairs*, 6(4), 1–5. <https://doi.org/10.4172/2167-0234.1000298>
- Siregar, I. F., Roekhudin, R., & Purwanti, L. (2018). Firm value predictor and the role of corporate social responsibility. *Journal of Finance and Banking*, 22(3), 475–485. <https://doi.org/10.26905/jkdp.v22i3.1804>
- Sondakh, R. (2019). The effect of dividend policy, liquidity, profitability, and firm size on firm value in financial service sector industries listed on the Indonesia stock exchange 2015–2018 period. *Accountability*, 8(2), 91–101. <https://doi.org/10.32400/ja.24760.8.2.2019.91-101>
- Sudiyatno, B., Puspitasari, E., Suwarti, T., & Asyif, M. M. (2020). Determinants of firm value and profitability: Evidence from Indonesia. *The Journal of Asian Finance, Economics, and Business (JAFEB)*, 7(11), 769–778. <https://doi.org/10.13106/jafeb.2020.vol7.no11.769>
- Syamsuddin, L. (2009). *Corporate financial management: Application concepts in planning, supervision, and decision making*. Jakarta, Indonesia: Garfindo Persada.
- Tan, A., Benni, D., & Liani, W. (2016). Determinants of corporate social responsibility disclosure and investor reaction. *International Journal of Economics and Financial Issues*, 6(4S), 11–17. <https://www.econjournals.com/index.php/ijefi/article/view/2683>
- Tui, S., Nurnajamuddin, M., Sufri, M., & Nirwana, A. (2017). Determinants of profitability and firm value: Evidence from Indonesian banks. *IRA-International Journal of Management & Social Sciences*, 7(1), 84–95. <https://doi.org/10.21013/jmss.v7.n1.p10>
- Widagdo, B., M. Jihadi, Y. B., Oky, E. S., & Sanju, K. S. (2020). Financial ratio, macroeconomy, and investment risk on Sharia stock return. *Journal of Asian Finance, Economics, and Business*, 7(12), 919–926. <https://doi.org/10.13106/jafeb.2020.vol7.no12.919>
- Winarso, E., & Christina, M. V. C. (2019). The influence of profitability to the company value with corporate social responsibility as a variable moderation. *Journal of International Conference Proceedings*, 2(1), 4–16. <https://doi.org/10.32535/jicp.v2i1.420>
- Wulandari, N. M. I., & Wiksuana, I. G. B. (2017). The role of corporate social responsibility in moderating the influence of profitability, leverage, and company size on firm value. *Management E-Journal of Udayana University*, 6(3), 1278–1311.