

The Mediating Effect of Debt Equity Ratio on The Effect of Current Ratio, Return on Equity and Total Asset Turnover on Price to Book Value

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Abstract

The research conducted here has two aims: firstly, it endeavors to examine the impacts of liquidity, Profitability, and activity ratio on capital structure as well as the firm value; and, secondly, it attempts to examine the role of capital structure as a mediator. We conduct the test with multiple regression and path analysis over 2020 - 2021 quarterly, with Eviews 8 software. Some companies in the technology sector are taken as samples. Besides, we also analyze financial statement data from Indonesia Stock Exchange. The result indicates Current Ratio, Return on Equity, Debt Equity Ratio significantly affect the Price Book Value, while Total Asset Turnover does not. The Current Ratio does not significantly affect the Debt Equity Ratio, while Total Asset Turnover and Return on Equity have significant negative effects. Path Analysis has confirmed that the Debt Equity Ratio cannot mediate the effect of the Current Ratio and Return on Equity on Price Book Value. However, it fully mediates the effect of Total Asset Turnover on Price Book Value. This finding of the present study supports the pecking order and static theory. The novelty of this research is that there is still little research on debt equity ratio as a mediator. There is no research especially on the technology sector, using those factors to determine the firm value. This research also uses the latest data of financial statements.

Keywords : Current Ratio; Price to Book Value; Return on Equity; Technology Sector; Total Asset Turnover

JEL Classification : G32, L25

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1. INTRODUCTION

The Covid-19 Pandemic has hit Indonesia for almost two years since March 2020. Industrial sectors were mostly affected, production was significantly reduced, many employees lost their jobs (Coker-Farrell et al., 2021). The COVID-19 will affect the economic environment and investor sentiment as a consequence of stock price changes (He et al., 2020). The lowest Jakarta Composite Index (JCI) was 3,937.63 on March 24, 2020. That

means it was declined by 37% from early 2020 before the pandemic. Despite the soaring cases of Covid-19, the bleak economic condition, and the inevitable financial problems in 2020 and 2021, the Indonesian Stock Market is still holding up. In July 2021, COVID-19 cases in Indonesia reached their peak: 56,757 cases were recorded on July 15, and 2,069 deaths were reported on July 27. It was even higher than the high record in January 2021. Therefore, the government decided to enforce a restriction on community activities from July 3, 2021.

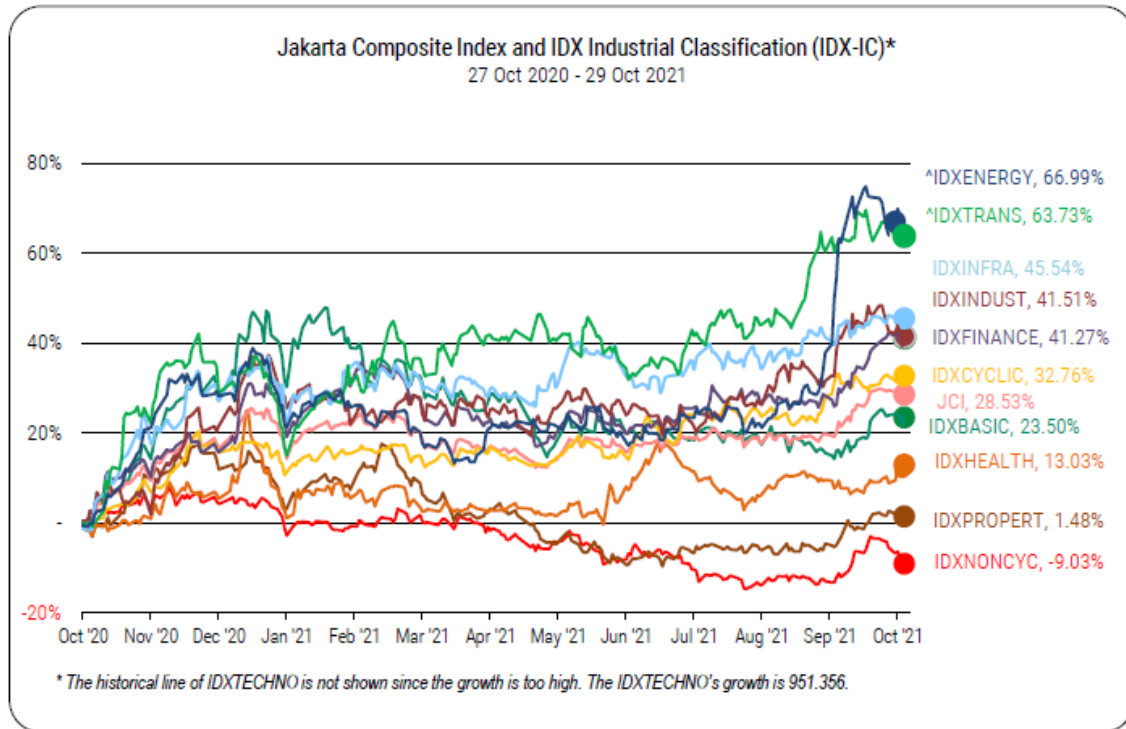


Figure 1. The comparison between Average New Covid-19 Cases and Monthly Jakarta Composite Index in Indonesia.

Table 1 shows that although the average of new Covid-19 cases rises sharply in June and July 2021, the Jakarta Composite Index can still hold on. It could be because of some stocks' rising prices, which can cover the declined price of some other stocks. Hence, we can understand better if we take a deeper look at each category of stocks in the Indonesia Stock Exchange (IDX). There are 11 sectors in IDX: (1) Basic Materials, (2) Consumer Cyclical, (3) Consumer Non-Cyclical, (4) Energy, (5) Financials, (6) Healthcare, (7) Industrials, (8) Infrastructures, (9) Property & Real Estate, (10) Technology, (11) Transportation & Logistic.

The data above tells us that from 11 sectors mentioned previously, it turns out that the most contributed sector is Technology with the growth of almost 1 thousand percent (951.36%) in a year. Concludingly, the rising of the Covid-19 cases in Indonesia was followed by the rising of the stock price in the Technology sector.

Investors must know whether the rising of the stock price is really supported by the firm's value or just due to the market trend. Further investigation of the fundamental analysis of those companies in the Technology Sector is needed. A firm's value is an indicator of assessment to be used by the investor in assessing whether companies are worthy of being invested or not. The firm value can be measured by a stock price or using

ratios like Price to Book Value, Tobin's Q, and Price Earnings Ratio. Some researchers have found that some factors affect the firm value; those are the Liquidity Ratio (Nurwulandari et al., 2021; Suhendry, 2021), Profitability Ratio (Nurwulandari et al., 2021), Activity Ratio, and also Leverage Ratio (Bahraini et al., 2021). We can employ all the factors as determinants of firm value, and especially for the leverage ratio, which can be proxied by Debt Equity Ratio can also be used to mediate the Effect of Profitability, Liquidity, and Activity Ratios on Stock Prices (Lumbantobing & Salim, 2021).

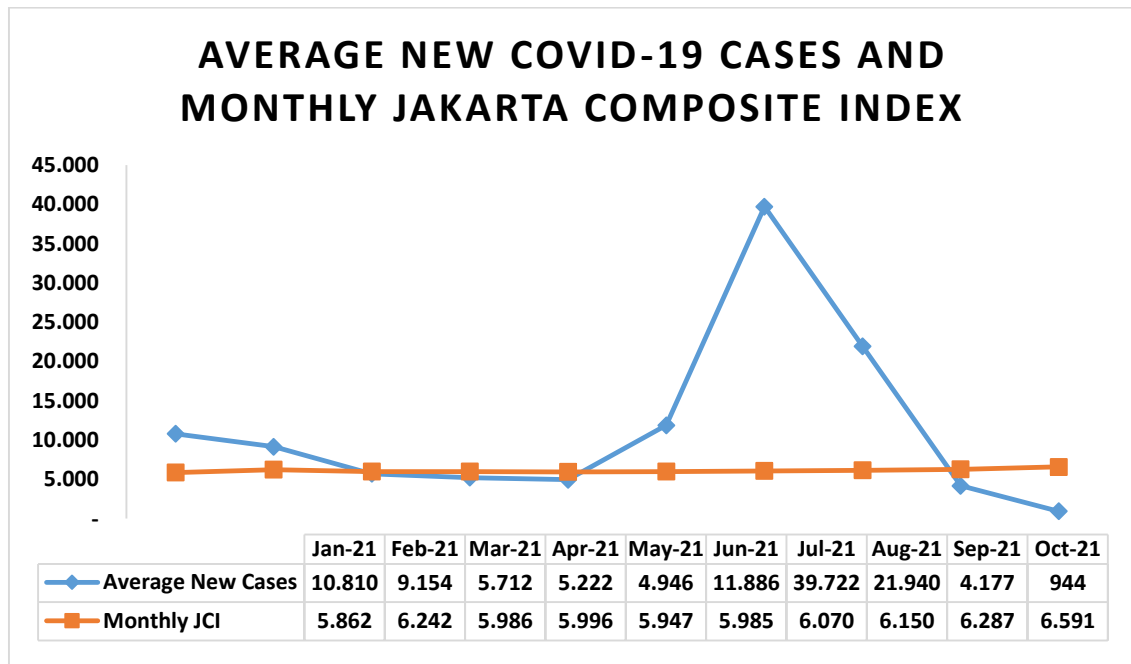


Figure 2. Jakarta Composite Index and IDX Industrial Classification (IDX-IC)
Source: www.idx.co.id

A common expression about leverage(debt) has become the philosophy of modern financial Management. Regarding the capital structure, it is said: " borrow as much as you can get and don't spread your earnings but spread your risk." It suggests that investors or companies should be prudent in determining the composition of the capital structure. As a source of external funding, debt has become a more attractive means for companies to restructure and develop business operations than their capital. In a management context, debt financing is beneficial because it provides financial leverage to increase earnings per share.

Nevertheless, the debt will increase the financial risk and cause financial distress; if it is too high, the company can afford to pay. Based on these two philosophies, companies must consider the benefits and costs of the selected source of funds in making a funding decision, which indicates the proportion of debt and equity of the company. The static theory asserts that the higher the proportion of debt, the company value as reflected by the share price will increase, however to a certain point, an increase in the proportion of debt will decrease corporate value (Modigliani & Miller, 1958).

There are two theories underlying the decision regarding funding sources: theory static (trade-off/balancing theory) and pecking order theory (POT). According to static theory, funding is based on the optimal capital structure, namely the structured capital, by

balancing the benefits of tax shields on usage debt against the cost of bankruptcy. The goal of theory Static is balancing own capital with outside capital. As long as the benefits of the use of debt are still larger than the cost, the debt can be increased, but if the sacrifice of using debt is already greater than the benefits, debt is no longer optimal to add. Meanwhile, the pecking order theory explains that funding is based on the order of funding preference with the smallest risk: retained earnings, debt, and issuance of equity (Myers, 1983). This theory prefers internal funding sources to external ones. The previous research has stated that the average family firms still use POT in Indonesia in the capital structure's application (Oktavina & Manalu, 2018).

Besides the theory gap mentioned above, some research gaps are underlying this research. Based on previous research, Profitability has no impact on firm value (Nurwulandari et al., 2021). Debt to Equity Ratio, managerial ownership, and institutional ownership has no significant effect on the firm value. In comparison, the Return On Equity significantly affects the firm value (Trafalgar & Africa, 2019). The debt to equity shows that Portfolios performed better with lower debt to equity (Berk & Tutarli, 2021). When the debt ratio is too high, firm performance decreases (Bui et al., 2021). There is a positive relationship between Profitability and firm value (Akhmadi, 2021). The debt to equity does not mediate the impact of return on equity on stock prices. Profit produces an increase in the retained earnings as internal funding, reducing dependence on external funding (Akhmadi et al., 2021). The liquidity, firm size, and Profitability have negative and significant effects on capital structure, while liquidity, Profitability, and firm size do not affect firm value. Capital structure has a negative and significant effect on firm value. Capital structure mediates the impact of liquidity, firm size, and Profitability on firm value (Nurwulandari et al., 2021).

Based on the contradictive results of the study earlier, along with the description that has been described above, the author wants to do the research which is entitled "The Effect of Current Ratio, Return on Equity and Total Asset Turnover on Price to Book Value Mediated by Debt Equity Ratio (Case Study in Technology Sector Listed on Indonesia Stock Exchange in The Period of 2020-2021 Quarterly)". The novelty brought about by this research is that there is still little research on the debt-equity ratio as a mediating variable. There is no specific research on the technology sector using those factors to determine the firm's value. In addition, this research also uses the latest data of financial statements.

2. HYPOTHESES DEVELOPMENT

Current Ratio and Price to Book Value

The greater the current ratio, the higher the firm's ability to handle its short-term liabilities. The current ratio has significantly affected the stock price (Andreas et al., 2021). Previous research also asserted that liquidity (Current Ratio) had a significant positive effect on firm value (Jihadi et al., 2021). From the explanation above, hypothesis 1 can be written as follows:

H1: The current ratio positively affects the price book value.

Return on Equity and Price to Book Value

Investors can use Profitability to determine the ability of the company's performance to gain profit. Increased Profitability can indicate the company's prospects in the future, and high Profitability will make it easier to attract investors who will impact the value of a

company. Previous research confirmed that Profitability positively affected firm value (Jihadi et al., 2021). Profitability had a significant positive effect on firm value (Setyabudi, 2021). ROE had a positive and significant effect on the firm value (Susanti & Restiana, 2018). From the explanation above, hypothesis 2 can be written as follows:

H2: The return on equity ratio positively affects the price book value.

Total Asset Turnover and Price to Book Value

The TATO had a positive and significant effect on DER (Lumbantobing & Salim, 2021). TATO had a significant positive effect on PBV (Firdaus, 2020). From the explanation above, hypothesis 3 can be written as follows:

H3: The total asset turnover positively affects the price book value.

Debt Equity Ratio and Price to Book Value

A debt-equity ratio negatively influences the firm value (FV) (Subing & Susiani, 2019). The capital structure had a significant and negative impact on firm value (Paramitha, 2020). DER negatively affects Tobin's Q (Kartika et al., 2020). From the explanation above, hypothesis 4 can be written as follows:

H4: The debt-equity ratio negatively affects the price book value.

Current Ratio and Debt Equity Ratio

The current ratio had a negative and significant effect on the solvency ratio (Lumbantobing & Salim, 2021). Liquidity directly had a significant negative effect on capital structure (Nurwulandari et al., 2021). From the explanation above, hypothesis 5 can be written as follows:

H5: The current ratio negatively affects the debt-equity ratio.

Return on Equity and Debt Equity Ratio

Profitability negatively affects the capital structure (Sutomo et al., 2020). Profitability directly has a significant and negative effect on the capital structure (Nurwulandari et al., 2021). The Capital Structure has a significant negative relationship with Profitability (Ahmed & Sabah, 2021). From the explanation above, hypothesis 6 can be written as follows:

H6: The return on equity ratio negatively affects the debt-equity ratio.

Total Asset Turnover and Debt Equity Ratio

The total asset turnover has a significant positive effect on the debt-equity ratio (Lumbantobing & Salim, 2021). A high asset turnover can result from purchasing assets that can be funded by debt, and the impact is the increasing debt ratio. From the explanation above, hypothesis 7 can be written as follows:

H7: The total asset turnover positively affects the solvency ratio

The Debt Equity Ratio mediates The Effect of Current Ratio on Price to Book Value

Leverage is a variable that mediates liquidity's effect on the firm value (Zuhroh, 2019). There is no relationship between the current ratio and firm value mediated by a debt-equity ratio (Kartika et al., 2020). The capital structure mediates the influence of liquidity on firm value (Nurwulandari et al., 2021). capital structure can mediate the influence of liquidity

on firm value (Sari, 2020). From the explanation above, hypothesis 8 can be written as follows:

H8: The debt-equity ratio mediates the effect of the current ratio on price book value.

The Debt Equity Ratio mediates The Effect of Return on Equity on Price to Book Value

Leverage is a variable that mediates the effect of Profitability on the firm value (Zuhroh, 2019). The debt-equity ratio is a variable mediating between Profitability and firm value (Kartika et al., 2020). The capital structure mediates the effect of Profitability on firm value (Nurwulandari et al., 2021). Capital structure is able to mediate the effect of Profitability on firm value (Sari, 2020). From the explanation above, hypothesis 9 can be written as follows:

H9: The debt-equity ratio mediates the effect of return on equity ratio on price book value.

The Debt Equity Ratio mediates The Effect of Total Asset Turnover on Price to Book Value

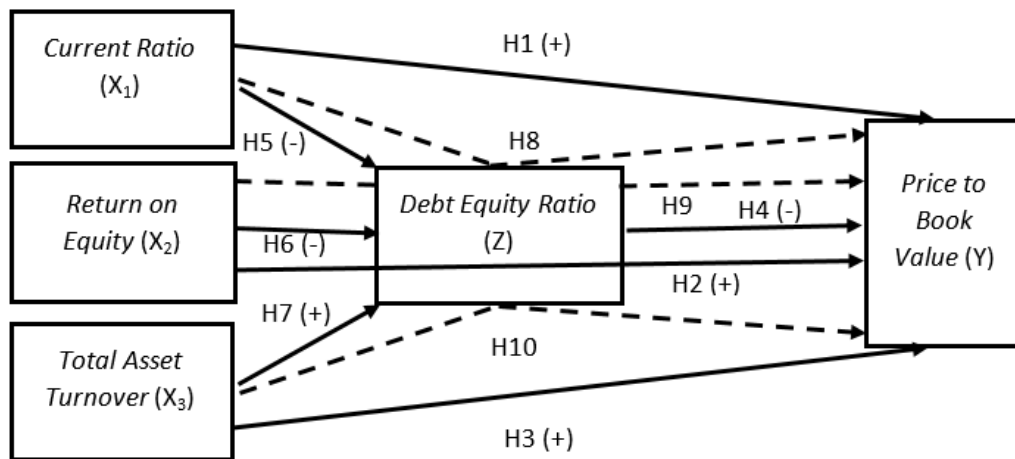


Figure 2. Research Model

The solvency ratio can mediate the effect of TATO on share prices (Lumbantobing & Salim, 2021). The total asset turnover positively affects the debt-equity ratio stated in H7. The debt-equity has negatively affected the price book value in H4, so from the explanation above, hypothesis 10 can be written as follows:

H10: debt-equity ratio mediates the effect of total asset turnover on price book value

3. METHOD, DATA, AND ANALYSIS

Operational Variable

In this research, there are three independent variables: Current Ratio (CR), Return on Equity (ROE), Total Asset Turnover (TATO), one dependent variable: Price to Book Value (PBV), and one mediating variable: Debt Equity Ratio (DER). All variables are in the Ratio scale and have formulas and explanations (Ross et al., 2019).

1. CR = Current Assets / Current Liabilities
CR measures the liquidity of the company in the short term.

2. $ROE = \text{Net Income} / \text{Total Equity}$
ROE measures the earnings that are entitled to receive by shareholders.
3. $TATO = \text{Sales} / \text{Total Assets}$
TATO measures how many sales can be generated by one amount of assets.
4. $PBV (\text{Market-to-book ratio}) = \text{Market Value} / \text{Book Value (per share)}$
PBV measures the market value of the firm's investments to their cost.
5. $DER = \text{Total Debt} / \text{Total Equity}$
DER measures how much the debt is for each amount of equity.

Population and Sample

In this research, the data come from the annual reports of firms in the technology sector listed on the Indonesia Stock Exchange for 2020-2021 quarterly. The number of firms in the technology sector listed on IDX (Indonesia Stock Exchange) is 17 companies. A research sample consists of 11 companies as following in Table 1.

Table 1. Code & Name of Research Samples

No.	Code	Company's Name
1	KIOS	PT Kioson Komersial Indonesia Tbk.
2	LMAS	PT Limas Indonesia Makmur Tbk
3	DMMX	PT Digital Mediatama Maxima
4	MCAS	PT M Cash Integrasi Tbk
5	PTSN	PT Sat Nusapersada Tbk
6	NFCX	PT NFC Indonesia
7	DIVA	PT Distribusi Voucher Nusantara Tbk.
8	MTDL	PT Metrodata Electronics Tbk
9	EMTK	PT Elang Mahkota Teknologi Tbk PT
10	GLVA	PT Galva technologies Tbk.
11	MLPT	PT Multipolar Technology Tbk.

Population and Sample

In this research, the independent variable is the current ratio (CR), return on equity ratio (ROE), and the total asset turnover ratio (TATO). The dependent variable in this research is a price to book value ratio (PBV), in which the stock price is proxied by the adjusted closing price. Meanwhile, the intervening variable is the debt to equity ratio (DER).

Data Collection Technique

Data collection is secondary data from the Indonesia stock exchange, which provides the interim financial reports of each company from 2020 to 2021 (2020: Q1, Q2, Q3, Q4, and 2021: Q1, Q2).

Data Analysis Technique

We do the multiple regression analysis to test the effect of the independent variables on dependent variable, and also path analysis to examine the mediation effect. The equation model used is as follows:

$$(1): Y1 = \beta_1X1 + \beta_2X2 + \beta_3X3 + \beta_4Z + E1$$

$$(2): Z = \alpha_1X1 + \alpha_2X2 + \alpha_3X3 + E2$$

$$Y1 = PBV, \text{ and } Z = DER$$

$$X1 = CR, X2 = ROE, X3 = TATO$$

α_j = variable path coefficient X1, 2, 3 equation (2)

β_j = variable path coefficient X1, 2, 3 equation (1)

E1, E2 = residual of equations (1) and (2)

Path diagram below to check direct and indirect relationships to show the mediation effect of DER. Table 2 is a Path analysis of the intervening variable.

Table 2. Path analysis of the intervening variable

Effect	X1 to Y1	X2 to Y1	X3 to Y1
Direct	β_1	β_2	β_3
Indirect	$\alpha_1*\beta_4$	$\alpha_2*\beta_4$	$\alpha_3*\beta_4$
Total	$\beta_1 + \alpha_1*\beta_4$	$\beta_2 + \alpha_2*\beta_4$	$\beta_3 + \alpha_2*\beta_4$

Suppose the total effect (exclude direction + or -) is greater than the direct effect. In that case, it means the debt-equity ratio strengthens the current ratio's effect, return to equity ratio. Total asset turnover ratio on price book value, or if the total effect is lower than the direct effect, means the debt-equity ratio weakens the effect of current ratio, return to equity ratio, and total asset turnover ratio on price book value.

4. RESULTS

We use Eviews 8 to conduct the multiple regression analysis and the path analysis. From table 3, we can see the mean for current ratio (CR) is 3.868030, return on equity (ROE) is 0.033485 or 3,3485%, total asset turnover (TATO) is 1.675152, debt-equity ratio (DER) is one, and price-book value (PBV) is 2.008788. We also can see the maximum, minimum, median, and other descriptive statistical results for CR, ROE, TATO, DER, and PBV in table 3.

Table 3. Descriptive Statistics

	CR	ROE	TATO	DER	PBV
Mean	3.868030	0.033485	1.675152	1.000000	2.008788
Median	2.410000	0.040000	0.760000	0.650000	1.200000
Maximum	16.53000	0.440000	15.74000	4.920000	15.16000
Minimum	0.030000	-0.840000	0.040000	0.080000	0.020000

	CR	ROE	TATO	DER	PBV
Std. Dev.	3.646506	0.139488	2.301846	0.952089	2.474103
Skewness	1.937036	-3.382339	3.772209	1.741999	3.201762
Kurtosis	6.048763	25.50740	22.35145	6.675959	15.10380
Jarque-Bera	66.83433	1518.946	1186.342	70.54003	515.6443
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	255.2900	2.210000	110.5600	66.00000	132.5800
Sum Sq. Dev.	864.3052	1.264698	344.4020	58.92080	397.8771
Observations	66	66	66	66	66

Table 4. Correlated Cross-Section Random Effects (Hausman Test) for Equation 1, PBV as dependent variables

Summary	Chi-Square Statistic	Chi-Square d.f.	Probability
Cross-section random	1.725760	4	0.7860

The Probability of Cross-section random is 0.7860 > 0.05. It means that we need to use a random-effect test. Table 4 is a Correlated Cross-Section Random Effects (Hausman Test) for Equation 1, PBV as dependent variables.

Table 5. Multiple Regression for Equation 1, PBV as dependent variables

Dependent Variable: PBV
 Panel EGLS Cross-section random
 Sample: 2020Q1 2021Q2
 Periods: 6
 Cross-sections: 11
 Total panel observations: 66

Variables	Coefficients	Standard Error	t statistic	Probability
C	0.440783	0.413156	1.066868	0.2902
CR	0.264738	0.055820	4.742734	0.0000
ROE	4.219706	0.848751	4.971669	0.0000
TATO	-0.032379	0.105730	-0.306239	0.7605
DER	0.456931	0.087198	5.240163	0.0000

Equation 1 is stated as follows:

$$Y1 = \beta_1X1 + \beta_2X2 + \beta_3X3 + \beta_4Z + E1 \text{ is}$$

$$PBV = 0.264738CR + 4.219706ROE - 0.032379TATO + 0.456931DER \quad (1)$$

1. H1: The current ratio positively affects the price book value.

From Table 5, the probability value for CR is 0.0000 < 0.05, so at the alpha 5%, it indicates that CR has a significant positive effect on PBV.

2. H2: The return on equity ratio positively affects the price book value.

From Table 5, the probability value for the ROA is 0.000 < 0.05, so at the alpha 5%, it indicates that ROE has a significant positive effect on PBV.

3. H3: The total asset turnover positively affects the price book value.

From Table 5, the probability value for the TATO is 0.7650 > 0.05, so at the alpha 5%, it indicates that there is not enough evidence to show TATO has a positive effect on PBV.

4. H4: The debt to equity ratio negatively affects the price book value

From Table 5, the probability value for DER is 0.0000 < 0.05, so the alpha 5% indicates that DER has a significant and positive effect on price book value. The results show the opposite effect that DER positively affects the PBV. So we can conclude that the research hypothesis H4 is inconclusive. Table 6 is a Correlated Cross-Section Random Effects (Hausman Test) for Equation 2, DER as dependent variables.

Table 6. Correlated Cross-Section Random Effects (Hausman Test) for Equation 2, DER as dependent variables

Summary	Chi-Square Statistic	Chi-Square d.f.	Probability
Cross-section random	4.596449	3	0.2038

The Probability of Cross-section random is 0.2038 > 0.05. It means that we need to use a random-effect test.

Table 7. Multiple Regression (Cross-section random effects) for Equation 2, DER as dependent variables

Dependent Variable: DER

Panel EGLS Cross-section random

2020Q1 2021Q2

Periods: 6

Cross-sections: 11

Total panel observations: 66

Variables	Coefficients	Standard Error	t statistic	Probability
C	1.154617	0.314635	3.669700	0.0005
CR	-0.006687	0.055143	-0.121272	0.9039
ROE	-1.552343	0.543834	-2.854440	0.0059
TATO	-0.045829	0.011997	-3.819915	0.0003

Equation 2 is stated as follows:

$$Z = \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + E_2 \text{ is}$$

$$DER = -0.006687CR - 1.552343ROE - 0.045829TATO + 0.456931DER \quad (2)$$

Based on the results of the multiple regression coefficients in Table 7, the independent variables (CR, ROE, TATO) that affect the dependent variable (DER) are as follows:

5. H5: The current ratio negatively affects the debt-equity ratio.

From Table 7, the probability value for CR = 0.9039 < 0.05, so at the alpha 5%, indicates that the data used in this research is not enough to prove that the CR negatively affects the DER.

6. H6: The return on equity ratio negatively affects the debt-equity ratio.

From Table 7, the probability value for ROA is 0.0059 < 0.05, so at the alpha 5%, it indicates that ROE had a significant negative effect on DER.

7. H7: The total asset turnover positively affects the debt-equity ratio

From Table 7, the probability value TATO is $0.0003 < 0.05$, so at the alpha 5%, it indicates that TATO has a negative and significant effect on DER. The results show the opposite effect: TATO has a positive effect on DER. So we can conclude that the research hypothesis H7 is inconclusive.

Path Analysis

Path analysis determines independent variables' direct or indirect effect (CR, ROE, TATO) on an independent variable PBV, where DER is a mediator.

Table 8. Path Analysis

Effect	CR to PBV	ROE to PBV	TATO to PBV
Live	0.264738	4.219706	-0.032379
Indirect	-0.006687 (0.456931)	-1.552343 (0.456931)	-0.045829 (0.456931)
Total	0.2617	3.5104	-0.0533

From Table 8, we can explain:

8. H8: The debt-equity ratio mediates the effect of the current ratio on price book value.

From Table 8, we can see the total effect of CR on PBV is 0.2617, smaller than the direct effect of 0.264738. It means DER weakens the effect of the current ratio on price book value. This concludes that the DER does not mediate the effect of CR on PBV.

9. H9: The debt-equity ratio mediates the effect of return on equity ratio on price book value.

From Table 8, we can see the total effect of ROE on PBV is 3.5104, smaller than the direct effect of 4.219706. It means DER weakens the effect of a return to equity ratio on price book value. This shows the DER does not mediate the effect of ROE on PBV.

10. H10: debt-equity ratio mediates the effect of total asset turnover on price book value

From Table 8, we can see the total effect of TATO on the PBV is -0.0533, which has a greater negative value than the direct effect -0.032379. It means DER strengthens the negative effect of the total asset turnover ratio on price book value. In conclusion, DER mediates the effect of TATO on PBV.

5. DISCUSSION

The CR has a positive and significant effect on PBV

The result confirms that the higher the current ratio, the higher price to book value. We can assume that if the company has a higher current ratio means the company has greater liquidity which means the company has a lower risk, and it can affect the firm value, which is presented in the higher stock price of the company, as well as price to book value. This finding supports the research performed by Andreas et al. (2021), Jihadi et al. (2021) but is contradictory to the study conducted by Sari (2020), Paramitha (2020), Zuhroh (2019).

The ROE has a positive and significant effect on PBV

ROE is one of the indicators of the company's Profitability, and PBV is the indicator of firm value, so if the ROE positively affects the PBV, the higher the profit, the higher the firm value. The greater Profitability represents a better operational activity and growth of the company, so the investors have greater confidence in the company. As a result, the stock price, as well as the PBV, will increase. This result is consistent with research performed by

Paramitha (2020), Firms & Akhmadi (2021), Jihadi et al. (2021), but inconsistent with the study performed by Susanti & Restiana (2018).

The TATO does not have an effect on PBV

TATO can represent the activity of the company. In this research, TATO does not have an effect on PBV. This result is consistent with research performed by (Saragih & Hakiman, 2021) but is inconsistent with the study performed by Firdaus (2020).

The DER has a positive and significant effect on PBV

DER represents the capital structure used by the company. The company can choose whether it will be funded by debt or equity. Companies usually prefer using debt to equity because debt can give a tax shield to the company, and also cost of capital from debt is lower than from the equity. This is in accordance with Pecking-order theory that states funding is based on the order of funding preference that has the smallest risk, those are from retained earnings, debt, and issuance of equity (Myers, 1983) and also The static theory, which states that if a proportion of debt becomes higher, the company value as reflected by the share price will increase (Modigliani & Miller, 1958). This result is in accordance with research performed by (Saragih & Hakiman, 2021) (Bahraini et al., 2021) but is not in line with the study performed by Firdaus (2020) Putri (2020).

The CR does not have an effect on DER

CR can represent the liquidity of the company. In this research, CR does not have an effect on DER. This result is in accordance with research performed by (Saragih & Hakiman, 2021) but is not in line with the study performed by Firdaus (2020).

The ROE has a negative and significant effect on DER

The higher the ROE, the higher the retained earnings. The company creates profit which can be accumulated retained earnings. If the company has sufficient retained earnings as a source of funds, then it will decrease the use of debt as the source of capital. This supports pecking-order theory, where the greater ROE can lead to the lower DER. This result is in line with research performed by Sutomo et al. (2020), Nurwulandari et al. (2021) but is not supported by the study performed by Kartika et al. (2020).

The TATO has a negative and significant effect on DER

TATO is Total Revenues divided by Total Asset. TATO will increase if The Total Asset decreases and/or the Revenues increases. Total Assets will decrease if the company sells assets or vice versa. If the company sells assets, the company will have a larger cash inflow so it can reduce the debt, or if the company buys assets, the company needs funds that can be provided by debt. The companies will issue debt as they have growth opportunities and high fixed assets because this can be collateral for debt (Ramli et al., 2019). This result is not in line with the study performed by Lumbantobing & Salim (2021).

The DER ratio cannot mediate the effect of CR on PBV

In this research, DER does not significantly mediate the effect of CR on PBV. This is not in line with the study performed by Nurwulandari et al. (2021), Lumbantobing & Salim (2021).

The DER ratio cannot mediate the effect of ROE on PBV

In this research, DER does not mediate the effect of ROE on PBV. This result is in accordance with research performed by Akhmadi et al. (2021) Kartika et al. (2020); it is

proved that the effect of return on equity on stock prices cannot be mediated by debt Nurwulandari et al. (2021).

The DER mediates the effect of TATO on PBV

From previous results in this research, TATO is insignificant on PBV, but after DER mediates the TATO on PBV, it becomes significant. The DER fully mediates the effect of TATO on PBV. This result is in accordance with research performed by Lumbantobing & Salim (2021).

6. CONCLUSION, LIMITATIONS, AND SUGGESTIONS

Conclusion

This research tests the mediating effects of DER on the impact of CR, ROE, and TATO on PBV. The unit of analysis used is Companies in Technology Sector listed in IDX (Indonesia Stock Exchange) with the periods of 2020 and 2021 quarterly. Two equations have been used in multiple regression analysis and path analysis to conduct the analysis. First, PBV becomes the independent variables with CR, ROE, TATO, and DER. Second, DER becomes the independent variables with CR, ROE, TATO as independent variables. The result indicates CR, ROE, DER significantly affect the PBV, while TATO does not. The CR does not significantly affect DER, while ROE and TATO have significant negative effects on DER. From Path Analysis, we can interpret that DER cannot mediate the effects of CR and ROE on PBV but fully mediates the effect of TATO on PBV. This study result supports the pecking order theory and also static theory. The implication for the investor is the need to pay attention to liquidity, leverage, and Profitability, which significantly affect the value of the firm. The Management of technologies company has to keep the leverage / DER in optimum.

Limitation and suggestions

This research only investigates financial ratios as independent variables towards mediating and independent variables, and future research can use macroeconomics factors as moderating or control variables. The unit of analysis of this research is the Technology sector; for better reliability and generalizability, we can use a broader unit of analysis. Moreover, this research has small samples, which are only 11 companies with a total of 66 observations, so the next researcher can add the total of the samples to be observed.

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