



The Dynamic Impact of Intellectual Capital on Firm Value: Evidence from Indonesia

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Abstract. Increasing business growth encourages companies to increase company achievements, prosper shareholders and grow company value. This study aims to show the effect of the mechanism of Institutional Ownership, Leverage, Profitability, Intellectual Capital, Current Ratio, and Earning Per Share on Firm Value and the effect of independent commissioners as a moderating variable. The study used secondary data from financial reports listed on the IDX for 2017–2021. Analysts data with multiple linear regression using SPSS 26. This test proves that profitability and leverage positively affect firm value. In contrast, institutional ownership, intellectual capital, current ratio, and earnings per share have a negative impact on firm value. Other results show that independent commissioners can moderate by weakening the link between leverage and company value. Still, independent commissioners cannot moderate the relationship between intellectual capital and the importance of financial sector companies listed on the Indonesia Stock Exchange for 2017–2021. This research contributes knowledge about the relationship between institutional ownership, leverage, intellectual capital, current ratio, earnings per share, and company value. Intellectual capital as a novelty is used to determine how influential intellectual capital is in increasing company value. In this study, an independent commissioner was used to influence the relationship between the independent variables and the dependent variable.

Keywords: Institutional ownership · intellectual capital · financial ratio and firm value

1 Introduction

The development of a business requires the industry to achieve maximum profit. Increasing business growth encourages companies to improve company achievements, prosper shareholders and grow company value. At the same time, the long-term goal of a company is not only to maximize profit but also to optimize the value of the company [1]. The company's value is exciting to discuss in the current Covid-19 phase. The company's value is one indicator considered by investors when investing their capital in a company. Company value describes information on the company's success in managing its resources for investors [2].

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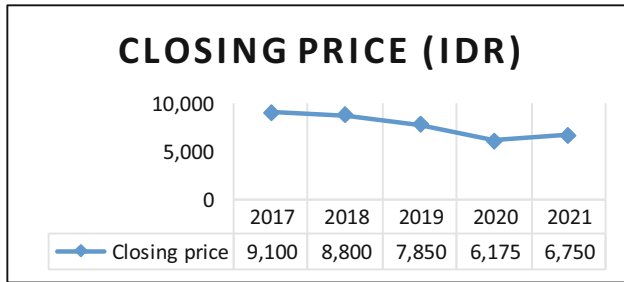


Fig. 1. Closing price financial company

Firm value is the understanding of investors about the company that is associated with stock prices. In making financial decisions, financial managers must determine what will be achieved. The value of a company in Indonesia can be measured by its share price [3]. One of the phenomena that is quite interesting for research at the present time is changes in stock prices, which have relatively fluctuating increases and decreases. High company value affects shareholder wealth, the better the company value, the greater the shareholder wealth, which will also affect investment decisions in a company [4]. Industries in the financial sector listed on the IDX have experienced relatively volatile changes over the last five years. Changes as shown in the figure below, which proves the average closing price of financial company shares has undergone a relatively fluctuating change.

The closing price of shares is the last price that appears from a company's stock before closing the stock exchange. Figure 1 provides information on the closing share price of Bank Negara Indonesia (Persero) for the period 2017–2021. Bank Negara Indonesia (Persero) experienced relatively fluctuating stock price changes. In 2018 it decreased by 3.30% to the price of IDR. 8,800/share, in 2019, it decreased by 10.80% to the price of IDR. 7,850/share, in 2020 saw a drastic decline of 21.34% to the cost of Rp. 6.175/share, and in 2021 it increased from the previous year by 9.31% to IDR. 6,750/share. From this phenomenon, the researcher uses the mechanical variables of good corporate governance, leverage, profitability, intellectual capital, current ratio and earnings per share to firm value.

Institutional ownership is share rights owned by institutions, shareholders, and other requests [5]. Based on previous research concluded, different results. Research that says institutional ownership has an effect is carried out [3], while research that says it has no impact is done [6]. Leverage can be interpreted as a ratio that explains the relationship between company debt and capital. This ratio describes how much the market is financed by debt or external parties, with industrial capacity described by equity [4]. Industries with high leverage ratios impact poor company value, and leverage is said to affect research conducted by [7]. Meanwhile, studies [8–12] state that leverage has a positive effect on company value.

Profitability is a comparison used to evaluate the industry's ability to maximize revenue [13]. High profitability signals that the company can use its assets and equity to generate profits. A higher profitability ratio indicates the company has good performance, so the company value is also high. Several studies found research results that were still

quite diverse, studies [7, 14, 15] reported that profitability had a positive effect on firm value, but studies [15–17] reported that profitability does not affect firm value. According study [18], intellectual capital is an asset in the form of intellectual capital that embodies competitive quality in the company, so it is the company's identity and is very difficult to rely on other companies. Intellectual capital is a competitive advantage owned by a company and is the difference between one company and foreign companies. Many studies on intellectual capital have been carried out but still have mixed results. Studies conducted by [19–21] reported that intellectual capital has a positive influence on firm value, namely the more significant the management of intellectual capital, the higher the firm value. His company meanwhile, studies conducted by [22, 23] state that intellectual capital does not affect firm value.

The current ratio is a comparison used to measure a company's ability to pay short-term obligations that are due when requested in full [24]. The higher the company's current ratio indicates that the company has good accountability and resilience and suggests that the company has high profitability. The current ratio is widely used in studies related to firm value, but the results are still very diverse. Studies conducted by [25–27] reported the current ratio has a positive influence on stock prices and the high current ratio causes the high firm of the company. Meanwhile, research [28] reported that the current ratio can not affect the company's value. Earning Per Share is earnings per share or often known as the book-to-value ratio. This ratio measures whether management can generate profits for shareholders [24]. The higher the earnings per share value, the greater the profits shareholders obtain from their investments. Studies conducted [27, 29, 30] report that earnings per share have a positive effect on firm value, so earnings per share are the main determinants in assessing company performance. Meanwhile, studies [25, 31] reported that firm value is not affected by earnings per share.

Many studies on firm value have been carried out before but still found different results. To find better results, the researchers added the intellectual capital variable, a novelty offer in this study. Intellectual capital is an intangible asset that can create a competitive advantage within the company. This capital is a unique asset that characterizes the company, making it very difficult for other companies to rely on [32]. Increased intellectual capital will also increase industry competition in the capital market. When the company's competitiveness rises, it can benefit the company so that its value can also increase. So intellectual capital is considered to affect firm value.

Another thing that makes this research interesting is the existence of an independent commissioner as a moderating variable. Having an independent commissioner can optimize management oversight in a company. Independent Commissioner is a factor that can affect company management's success, which impacts company value. This research was conducted to empirically prove the influence of institutional ownership mechanisms, leverage, profitability, intellectual capital, current ratios, and earnings per share on firm value. As well as proving whether an independent commissioner can moderate the relationship between leverage with firm value and intellectual capital with firm value.

2 Literature Review

2.1 Signal Theory

Signal theory is a scale used by the industry to indicate to investors how management views the company [33]. Signal theory is rooted in pragmatic accounting theory, which focuses on the impact of news on the evolution of information-user behaviour. The information provided will be news that the company has good news or bad news for the future. The relationship between signal theory and the variables used in this research is that high leverage will give a negative signal to investors because high power means that the company's debt also increases. Thus, investors are not motivated to invest in the company, and this condition impacts decreasing the company's value. Meanwhile, high profitability bodes well for investors. High profitability proves that the company uses the company's assets most efficiently. The same support can generate the highest income, encouraging investors to invest in the industry and increase the company's value.

Intellectual capital provides a positive signal for investors. Increasing intellectual capital can increase the competitiveness of companies in the capital market. The higher competitiveness of companies can benefit the company, and as a result, the company's value can also be higher. This attracts investors to invest in their shares. The current ratio sends a positive signal to investors. When the company quickly fulfils short-term obligations, it can produce security for its financial statements, increasing its value. Earning per share positive news to investors. The higher the earnings per share, the higher the profit that will be obtained so that the welfare of shareholders is good and can increase the value of the company.

2.2 Effect of Institutional Ownership on Firm Value

Institutional ownership is share rights owned by institutions, shareholders, and other requests [5]. Institutional ownership is essential in conducting management supervision because institutional ownership makes control in decision-making also optimal. Optimal supervision will ensure the welfare of shareholders, thereby causing an increase in the value of the company. This follows the signal theory that institutional ownership sends positive news to investors. Research conducted [34] reported institutional ownership positively affects firm value. This means that the more optimal management monitoring is carried out, the more the shareholders' welfare is guaranteed to increase the company's value. Based on this description, the hypothesis can be formulated as follows:

H₁: Institutional Ownership has a positive effect on firm value

2.3 The Effect of Leverage on Company Value

Leverage is a comparison that describes the relationship between liabilities and equity. This ratio can explain the company's size funded by debt which is presented in the company's capital [35]. The high leverage ratio can cause a decrease in company value. Signal theory describe that high leverage can send a negative signal to creditors because higher leverage means more funding using debt. The study [36] report that leverage

negatively affects company value. The company's success in managing assets impacts increasing company value. Based on the description, the provisional conjecture can be formulated as follows:

H₂: Leverage has a negative effect on firm value

2.4 The Effect of Profitability on Company Value

Profitability is the effectiveness of generating profits through using assets or capital, both global capital and equity, in a certain period [13]. The increase in the company's profitability ratio will increase the opportunity to attract investors to the company so that there will be an increase in company value. The signal theory states that when a company can generate profits effectively, it becomes a positive signal for investors and other stakeholders. High profitability means the company has good management in maximizing profits. Leverage influencing positively is carried out by [10, 37–39]. The company's ability to generate profits will attract investors, thereby increasing the value of the company. From the explanation above, temporary assumptions can be taken as follows:

H₃: Profitability has a positive effect on firm value

2.5 The Influence of Intellectual Capital on Firm Value

Intellectual Capital is the ability to effectively manage resources and skills in the form of knowledge as a competitive advantage to enhance the company's development and capabilities in the market [8]. A company's performance will be optimal if the company has a competitive advantage that can generate company value. An increase in intellectual capital can increase a company's competitiveness in the capital market. When the Signal theory states that the ability to manage resources and skills is carried out effectively, it gives a positive signal for investors to invest their capital in the company. Studies conducted [40–42] state that intellectual capital has a positive effect on company value. Increasing intellectual capital means that the company has a competitive advantage that other companies do not own, thereby increasing competitiveness in the market and increasing profits to increase the company's value. Based on the description, the assumptions can be interpreted as follows:

H₄: Intellectual capital has a positive effect on firm value

2.6 Effect of Current Ratio (CR) on Firm Value

The current ratio is the ratio used by companies when measuring their ability to pay off current liabilities or debts that are due when requested in full [24]. Operational flows are said to be independent of debt if the company's ability to pay off short-term debt is high [28]. Studies conducted by [43–45] report that the current ratio has a positive effect on firm value. The more current liabilities filled with assets, the smoother the company's operational flow to attract investors and increase company value. From the explanation above, temporary assumptions can be taken as follows:

H₅: Current ratio has a positive effect on firm value.

2.7 The Effect of Earning Per Share on Company Value

Earning per share is the ratio used by company management to measure the level of success in obtaining profits for shareholders. An increase in the earnings per share ratio indicates that companies can prosper shareholders by increasing profits [45]. The signal theory states that high profits for shareholders suggest that companies can thrive shareholders to increase firm value. Studies conducted by [43, 46, 47] resulted in research that earnings per share have a positive influence on firm value. Increasing the ratio of earnings per share means that management can prosper the shareholders with the high earnings generated to increase the company's firm. Based on the description, the assumptions can be interpreted as follows:

H₆: *Earning per share has a positive effect on company value.*

2.8 Influence of Independent Commissioner as Moderating Variable

Shareholders generally tend to avoid the risks associated with using leverage. Companies that use leverage or borrowed capital have an obligation to interest and cost of capital. The use of debt capital has a reasonably significant default risk, so the debtor must monitor the company's ability to earn profits. Independent commissioners supervise so that the company can manage leverage properly. One of the independent commissioners influences high corporate value when supervising company management. A study by [48] reported that intellectual capital impacts company value and can be moderated by an independent commissioner. Leverage can be appropriately managed if a company's number of independent commissioners is large. The low level of leverage in the company will attract investors and increase the value of the company.

Intellectual Capital is resource capability and ability to effectively manifest knowledge as an advantage in competing for efforts to increase company development and skills in the market [42]. Achieving optimal intellectual capital requires a good independent commissioner to carry out optimal supervision when making decisions. Optimal monitoring from an independent commissioner can improve resource capabilities effectively. The company's performance can be improved one way by increasing the company's intellectual capital so that the value of the company can grow. Signal theory gives a positive signal to investors. The study [49] reported that intellectual capital impacts company value and can be moderated by an independent commissioner. Supervision carried out by independent commissioners on the company's intellectual resources will be optimal if the company owns more and more independent commissioners to increase its value.

H₇: Independent board of commissioners strengthens the influence of leverage on company value

h₈: Independent board of commissioners strengthens the influence of intellectual capital on company value

Table 1. Variable Measurement

Variable	Variable Measurement
Firm Value	$Q = \frac{MVS+D}{TA}$ MVS = year-end closing share price X outstanding year-end shares Debt (D) = (AVCL – AVCA) + AVLTD AVCL = current liability AVCA = current asset AVLTD = long-term liability TA = Total Assets
Institutional Ownership	$KI = \frac{\text{Number of Shares owned by the Institution}}{\text{Outstanding Share}} \times 100\%$
Independent Commissioner	$DKI = \frac{\text{Number of Independent Commissioners}}{\text{Total Board of Commissioners}} \times 100\%$
Leverage	$DER = \frac{\text{Total Liability}}{\text{Total Ekuity}} \times 100\%$
Profitability	$ROE = \frac{\text{Net Profit After Tax}}{\text{Shareholder Equity}} \times 100\%$
Intellectual Capital	$VAIC = \frac{VA}{CE} + \frac{VA}{HC} + \frac{SC}{VA}$ VA = Value Added CE = Capital Employed HC = Human Capital SC = Structural Capital (VA – HC)
Current Ratio	$CR = \frac{\text{Current asset}}{\text{current liabilities}}$
Earning Per Share	$EPS = \frac{\text{Profit After Tax}}{\text{Total of shares outstanding}}$

3 Research Methods

The unit of analysis of this research is the financial sector companies from 2017 to 2021, with 285 observations. The reason for choosing a financial sector company is because this sector is the sector most affected by the COVID-19 pandemic. The sampling technique chosen was purposive sampling, with certain conditions. The population of this study is all financial sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2017 to 2021. The number of financial sector companies listed on the IDX until 2021 is 57 companies that meet the requirements, so there are 285 units of analysis of research companies. The sampling method was carried out by purposive sampling, namely, selecting samples with specific criteria.

Data is collected using documentation based on annual reports of financial sector companies listed on the Indonesia Stock Exchange for 2017–2021. The source is from the IDX website, www.idx.co.id and the company's official website. This study uses descriptive statistical analysis, multiple linear regression and a test of determination.

Variable Measurement and Observation

Data were analyzed using multiple linear regression to predict variable variation by regressing more than one variable to the dependent variable. The analytical tool used is

SPSS 26. The research model in this study is (Table 1):

$$\begin{aligned} \text{NP: } & \alpha + \beta 1(\text{KI})_{i,t} + \beta 2(\text{DKI})_{i,t} + \beta 3(\text{DER})_{i,t} + \beta 4(\text{ROE})_{i,t} \\ & + \beta 5(\text{IC})_{i,t} + \beta 6(\text{CR})_{i,t} + \beta 7(\text{EPS})_{i,t} + e \\ \text{NP1: } & \alpha + \beta 1(\text{KI})_{i,t} + \beta 2(\text{DER})_{i,t} + \beta 3(\text{ROE})_{i,t} + \beta 4(\text{IC})_{i,t} \\ & + \beta 5(\text{CR})_{i,t} + \beta 6(\text{EPS})_{i,t} + \beta 6(\text{DKI}) * (\text{DER}) * (\text{IC})_t + e \end{aligned}$$

Notes: NP stands for Corporate Value, KI stands for Institutional Ownership, DKI stands for Independent Board of Commissioners, DER stands for Leverage, ROE stands for Profitability, IC stands for Intellectual Capital, CR stands for Current Ratio, and EPS stands for Earning Per Share. i is a financial sector company, t is time, $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5, \beta 6, \beta 7$ are coefficients for independent variables, α are constants, and e are errors.

4 Result and Discussion

4.1 Descriptive Statistics

Based on Table 2, the data for the institutional ownership variable has a narrow data distribution as evidenced by the standard deviation value of 0.25260, which is smaller than the mean value of 0.6772, and the mean financial companies in the industry have very little institutional ownership, as evidenced by the average close to the minimum. Independent commissioners have a narrow data distribution, evidenced by a standard deviation value of 0.66227, which is smaller than the average of 0.7796. The average company in the financial sector has very low institutional ownership, as shown by the median, which is close to the minimum. Leverage has a typical data distribution, evidenced by the standard deviation value of 1.51544, below the mean of 1.9421. The average financial sector companies have very low leverage, as evidenced by the mean close to the minimum. The rate of return has a wide distribution of data points, as evidenced by the standard deviation value of 1.06670, which is greater than the median of 0.9853. The median companies in the financial sector have meagre profitability, as evidenced by the median near the bottom.

Intellectual capital in this research has a wide distribution of data, evidenced by the standard deviation of 1.69785, which is greater than the average value of -0.1585. The average financial sector company has deficient intellectual capital, as evidenced by the mean value, which is close to the minimum value. The Current Ratio has a wide distribution of data, evidenced by the standard deviation value of 1.05278, which is greater than the average value of 0.9662. The average financial sector company has a meagre current ratio, as evidenced by the mean value, which is close to the minimum value. Earning Per Share in this research has a narrow data distribution. This is evidenced by the standard deviation value of 1.16650, which is smaller than the average value of 1.3400. The middle financial sector companies have deficient earnings per share, as evidenced by the mean value, which is close to the minimum value.

Table 2. Multiple linear regression test results

Variabel	Beta	t-statistic	Significance	R-Square
Institutional Ownership	-1.090	-3.075	0.002	0.511
Independent Commissioner	0.104	0.845	0.399	
<i>Leverage</i>	0.064	1.071	0.285	
Profitability	0.248	2.878	0.004	
<i>Intellectual Capital</i>	-0.125	-2.313	0.022	
<i>Current Ratio</i>	0.034	0.442	0.049	
<i>Earning Per Share</i>	-0.028	-0.425	0.001	

Table 3. Moderate Regression Analysis Results

Variable	Beta	t-statistic	Significance	R-Square
Institutional Ownership	-1.090	-3.075	0.002	0.748
Independent Commissioner	0.104	0.845	0.399	
<i>Leverage</i>	0.064	1.071	0.285	
Profitability	0.248	2.878	0.004	
<i>Intellectual Capital</i>	-0.125	-2.313	0.022	
<i>Current Ratio</i>	0.034	0.442	0.049	
<i>Earning Per Share</i>	-0.028	-0.425	0.001	
Independent Commissioner x <i>Leverage</i>	-0.050	-0.579	.000	
Independent Commissioner x <i>Intellectual Capital</i>	0.008	0.125	.901	

4.2 Multiple Linear Regression

The analysis used to assess the influence of the independent variables and the dependent variable on firm value is multiple linear regression analysis. This means that it includes seven independent variables and one dependent variable (Table 3).

4.3 The Effect of Institutional Ownership on Firm Value

Based on the tests in this study, it was obtained that the t-value was -3.497 with a significance value of 0.001, less than 0.05. the test results explain that institutional ownership negatively affects firm value, H1 is not accepted. This negative effect is because too many institutional investors tend to be on the side of management, so the interests of minority shareholders are ignored. The assumption that control is used to take steps or strategies that are suboptimal and tends to generate self-interest that leads to strategic alliances between institutional investors and management will send a negative signal to outsiders. This action will harm the company's operations. Thus resulting in a

decrease in investor interest in investing so that the share price also decreases. Research that states institutional ownership has a negative influence was carried out by [23, 31, 50, 51].

4.4 The Effect of Leverage on Firm Value

Based on the testing in this study, the t-count value was 1.017, and a significance of 0.010 was less than 0.05. The test results explain that profitability positively affects firm value, H2 is not accepted. The company will obtain a positive response from the market if investors can interpret the use of leverage as the effectiveness of the company in paying off the company's obligations in the future. Companies that can reinvest or increase dividend distribution to investors will receive a positive response that can increase market capitalization so that stock offerings increase. If the company is taxed, it can be used as an excuse to use debt, and this is the right step to increase market capitalization because repayment of interest on the debt can reduce the burden of costs that should be paid for taxes. Investors receive a positive signal because the high use of debt in the financial sector indicates that the company can make payments at each maturity to attract investors to invest and increase the company's value. The results of this study are supported by research conducted [52, 53], which report that leverage has a positive effect on firm value.

4.5 Effect of Profitability on Firm Value

Tests in this study resulted in a calculated t-value of 0.622 and a significance of 0.034, which is less than 0.05. The test results explain that profitability positively affects firm value, H3 is not accepted. Good profitability is when the company can generate profits. The company's high profitability is one example of when the company can pay dividends. The signal theory states that investors will receive a positive signal if there is an increase in profits in the company. Investors need information about this ratio to gain confidence in their return on investment. The return the company will get will be high if the company's profit level is also high. Company performance can increase if a company has a profitability ratio that can attract investors to invest their capital because getting worth can increase its value. Research that states that profitability has a positive effect was carried out by [10, 14, 15].

4.6 The Influence of Intellectual Capital on Firm Value

The test produced in this study obtained a t-value of -2.176 and a significance of 0.030, less than 0.05. Intellectual capital negatively affects firm value in financial sector companies for 2017–2021. Thus H4 is rejected because the test results show that intellectual capital negatively affects substantial value. Investors are suspected of not acting based on intellectual capital information because they believe that factors other than knowledge capital affect significant value. Management assumes that intellectual capital has no role in increasing the company's value. Company management sees the physical investment as more than capital investment. Management wants to avoid taking the risk due to the

significant investment in intellectual capital. Control of the company's intellectual capital is not carried out effectively and efficiently, so it cannot be a future benefit for companies in the financial sector. The use and management of the company's intellectual capital have not been optimal, making the company's intellectual capital not an advantage of the company compared to other companies. So it sends a negative signal to investors. This is in line with research [5] which reports that intellectual capital has a negative effect on firm value.

4.7 Effect of Current Ratio on Firm Value

The test in this study obtained a t-value of -0.898, and a significance of 0.039 was less than 0.05. The current ratio negatively affects company value in financial sector companies for 2017–2021. Thus, H5 is rejected because the current ratio negatively affects company value. This happens because not all components of existing assets have a high level of liquidity. A high current ratio indicates that there are unused funds. This means that funds have decreased due to current debt payments using company assets, thus indicating that the company cannot use assets properly. The current ratio cannot be used to make company investment decisions. The condition of a company that is said to be good cannot be seen only by the high current ratio. It gives a negative signal to investors. Research that states that the current ratio has a negative effect was carried out by [54, 55].

4.8 The Effect of Earning Per Share on Firm Value

The test results are the calculated t-value of -0.898 and a significance of 0.030, less than 0.05. Earning per share negatively affects company value in financial sector companies from 2017–2021. Thus H6 is rejected because earnings per share negatively affect company value. An increase in any earnings per share ratio does not necessarily help increase the company's value. Financial sector companies in 2017–2021 have investors' expectations of earnings per share ratio that is too high. The profit generated by the company with the expectations of investors do not match, so investors perceive this as bad news. If all investors have high expectations of the company's profits and think that the resulting gain is terrible news, the share demand will automatically decrease. This causes a decrease in stock prices, causing the company's value to drop. This is in line with research conducted by [56] which reports that earnings per share have a negative effect on firm value.

4.9 The Influence of the Independent Commissioner as a Moderating Variable

Based on the testing of this study, the moderating test of independent commissioners in this study can be seen for independent commissioners x leverage with a t value of -0.579 and a significance of 0.000 less than 0.05. The independent commissioner variable can moderate by weakening the influence of leverage on firm value. Thus H7 is accepted because the independent commissioner can moderate it by cutting the effect of leverage on company value in the financial sector for the 2017–2021 period. The study

results indicate that optimal supervision by an independent commissioner in a company can affect the level of leverage in a company. A large number of commissioners can optimize the company's management of its operations so that they use their capital rather than debt. The high use of debt in the company will have a destructive impact on the company because it will result in a decrease in its profits. Thus, the independent board of commissioners must monitor so that the use of debt of financial sector companies is low. The reduction in debt in a company will cause an increase in investors' interest in investing their capital so that the share price will also increase, and the value of the company will also increase. Research that states that independent commissioners can strengthen the relationship between leverage and firm value were conducted by [48].

The results of testing the independent commissioner variable as moderation in this research shows that for the independent commissioner x intellectual capital, the calculated t-value is 0.125, and the significance of 0.901 is more significant than 0.05. Thus H8 is rejected because the independent commissioner cannot influence the influence of intellectual capital on firm value in the financial sector in 2017–2021. This research shows that monitoring the board of commissioners that is carried out optimally in company management is only sometimes a factor in increasing the company's intellectual capital, which causes investors to invest their capital to increase its value. With an good independent ownership structure, it needs to provide an overview of the disclosure and transparency of company information. Investors will assume that intellectual capital information cannot be standard when investing. The existence of an independent board of commissioners in the company cannot convince investors that intellectual capital is a knowledge resource that exists in the company and will create future profits for the company. Effective and efficient management of the company's intellectual capital, which causes the company's financial performance to increase, must be carried out by all company resources to convince investors to invest their capital. This research is supported by research [18, 57], which state that independent commissioners cannot moderate the link between intellectual capital and firm value.

5 Conclusion

This research was conducted to prove whether or not there is an influence of institutional ownership, leverage, profitability, intellectual capital, current ratio, and earnings per share on company value. testing the financial sector in 2017–2021, which was carried out, concluded that institutional ownership, intellectual capital, current ratio, and earnings per share negatively affect company value in financial sector companies listed on the IDX for the 2017–2021 period. However, leverage and profitability positively affect firm value in financial sector companies for the 2017–2021 period. Independent commissioners can moderate by weakening the relationship between leverage and company value. In contrast, for intellectual capital, independent commissioners are unable to moderate their relationship with company value in financial sector companies, especially those listed on the IDX for the 2017–2021 period. This research can predict the firm value variable by 51.1%. However, after using the independent commissioner as a moderating variable, the predictive rate of firm value increased to 74.8%. This study uses a moderating variable that only connects the two independent variables. Suggestions for further research it is

expected to develop more moderating variables in influencing the relationship of other independent variables to the dependent variable to obtain good and relevant results in terms of influencing the firm value.

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References

1. E. A. Al-Homaidi, F. A. Almaqtari, A. Ahmad, and M. I. Tabash, "Impact of corporate governance mechanisms on financial performance of hotel companies: Empirical evidence from India," *African J. Hosp. Tour. Leis.*, vol. 8, no. 2, pp. 1–21, 2019.
2. I. Zuhroh, "The Effects of Liquidity, Firm Size, and Profitability on the Firm Value with Mediating Leverage," *KnE Soc. Sci.*, vol. 3, no. 13, p. 203, 2019, doi: <https://doi.org/10.18502/kss.v3i13.4206>.
3. I. G. A. V. Widyasti and I. G. A. M. A. D. Putri, "The Effect of Profitability, Liquidity, Leverage, Free Cash Flow, and Good Corporate Governance on Dividend Policies (Empirical Study on Manufacturing Companies Listed in Indonesia Stock Exchange 2017–2019)," *Am. J. Humanit. Soc. Sci. Res.*, vol. 5, no. 1, pp. 269–278, 2021, [Online]. Available: www.ajhssr.com
4. F. Sukesti, I. Ghozali, F. Fuad, A. K. Almasyhari, and N. Nurcahyono, "Factors Affecting the Stock Price: The Role of Firm Performance," *J. Asian Financ. Econ. Bus.*, vol. 8, no. 2, pp. 165–173, 2021, doi: <https://doi.org/10.13106/jafeb.2021.vol8.no2.0165>.
5. M. S. Harun, K. Hussainey, K. A. Mohd Kharuddin, and O. Al Farooque, "CSR Disclosure, Corporate Governance and Firm Value: a study on GCC Islamic Banks," *Int. J. Account. Inf. Manag.*, vol. 28, no. 4, pp. 607–638, 2020, doi: <https://doi.org/10.1108/IJAIM-08-2019-0103>.
6. M. A. Qureshi, S. Kirkerud, K. Theresa, and T. Ahsan, "The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity," *Bus. Strateg. Environ.*, vol. 29, no. 3, pp. 1199–1214, 2020, doi: <https://doi.org/10.1002/bse.2427>.
7. R. Budiharjo, "Effect of Environmental Performance, Good Corporate Governance and Leverage on Firm Value," *Am. J. Humanit. Soc. Sci. Res.*, vol. 4, no. 8, pp. 455–464, 2020, [Online]. Available: www.ajhssr.com
8. A. H. Nguyen and D. T. Doan, "The impact of intellectual capital on firm value: Empirical evidence from Vietnam," *Int. J. Financ. Res.*, vol. 11, no. 4, pp. 74–85, 2020, doi: <https://doi.org/10.5430/ijfr.v11n4p74>.
9. E. Kusumawati and A. Setiawan, "the Effect of Managerial Ownership, Institutional Ownership, Company Growth, Liquidity, and Profitability on Company Value," *Ris. Akunt. dan Keuang. Indones.*, no. Vol 4, No 2 (2019), pp. 136–146, 2019, doi: <https://doi.org/10.23917/reaksi.v4i2.8574>.
10. H. Sari, D. Prapanca, V. Setiyono, and F. Wanti, "Impact of Liquidity, Profitability, and Debt Policy Against The Value Of The Company," *Proc. 3rd Int. Conf. Business, Accounting, Econ.*, no. 2017, 2022, doi: <https://doi.org/10.4108/eai.10-8-2022.2320883>.
11. I. A. G. D. M. Sari, "Profitability and liquidity on firm value and capital structure as intervening variable," *Int. Res. J. Manag. IT Soc. Sci.*, vol. 7, no. 1, pp. 116–127, 2020, doi: <https://doi.org/10.21744/irjmis.v7n1.828>.

12. N. Nurcahyono, A. N. Hanum, and F. Sukesti, "COVID 19 Outbreak and Stock Market Return: Evidence from Indonesia," *J. Din. Akunt. dan Bisnis*, vol. 8, no. 1, pp. 47–58, 2021, doi: <https://doi.org/10.24815/jdab.v8i1.18934>.
13. P. Jaimuk, N. Nilapornkul, and S. Ngudgratoke, "Impact of a mediator on corporate governance characteristics and real earning management of Thai listed companies," *Test Eng. Manag.*, vol. 83, no. August 2021, pp. 5912–5924, 2020, [Online]. Available: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85083000162&partnerID=40&md5=2d3e3b8c33311fdaee636eba43732f44>
14. T. Setyabudi, "The Effect of Institutional Ownership, Leverage, and Profitability on Firm Value with Dividend Policy as an Intervening Variable," *J. Bus. Manag. Rev.*, vol. 2, no. 7, pp. 457–469, 2021, doi: <https://doi.org/10.47153/jbmr27.1632021>.
15. M. Jihadi, E. Vilantika, S. M. Hashemi, Z. Arifin, Y. Bachtiar, and F. Sholichah, "The Effect of Liquidity, Leverage, and Profitability on Firm Value: Empirical Evidence from Indonesia," *J. Asian Financ. Econ. Bus.*, vol. 8, no. 3, pp. 423–431, 2021, doi: <https://doi.org/10.13106/jafeb.2021.vol8.no3.0423>.
16. E. Handriani, I. Ghozali, and H. Hersugodo, "Corporate governance on financial distress: Evidence from Indonesia," *Manag. Sci. Lett.*, vol. 11, pp. 1833–1844, 2021, doi: <https://doi.org/10.5267/j.msl.2021.1.020>.
17. N. Nurcahyono, A. N. Hanum, I. Kristiana, and I. D. Pamungkas, "Predicting fraudulent financial statement risk: The testing dechow f-score financial sector company in Indonesia," *Univers. J. Account. Financ.*, vol. 9, no. 6, pp. 1487–1494, 2021, doi: <https://doi.org/10.13189/ujaf.2021.090625>.
18. Y. Augustine and A. Dwianika, "Earnings Management in Indonesia: Determinant of Company Size, Structure of Managerial Ownership and Profitability on Earnings Management," *South East Asia J. Contemp. Business, Econ. Law*, vol. 19, no. 5, pp. 176–188, 2019.
19. A. Marfiana and Y. P. M. Putra, "The Effect of Employee Benefit Liabilities, Sales Growth, Capital Intensity, and Earning Management on Tax Avoidance," *J. Manaj. STIE Muhammadiyah Palopo*, vol. 7, no. 1, p. 16, 2021, doi: <https://doi.org/10.35906/jm001.v7i1.718>.
20. D. N. P. NGO and A. T. H. LE, "Relationship Between the Audit Committee and Earning Management in Listed Companies in Vietnam," *J. Asian Financ. Econ. Bus.*, vol. 8, no. 2, pp. 135–142, 2021, doi: <https://doi.org/10.13106/jafeb.2021.vol8.no2.0135>.
21. S. Maryati and R. Hendrawan, "Budgetary Slack: Information Asymmetry and Emphasis of Budgetary As Moderating Effect," *Akuntabilitas*, vol. 14, no. 2, pp. 243–252, 2020, doi: <https://doi.org/10.29259/ja.v14i2.11780>.
22. V. C. Nguyen, "Human capital, capital structure choice and firm profitability in developing countries: An empirical study in Vietnam," *Accounting*, vol. 6, no. 2, pp. 127–136, 2020, doi: <https://doi.org/10.5267/j.ac.2019.11.003>.
23. J. Elim, "Model of Firm Value – Indonesian Stock Exchange Case," *Int. J. Econ. Financ. Issues*, vol. 9, no. 3, pp. 154–162, 2019, doi: <https://doi.org/10.32479/ijefi.8036>.
24. Kasmir, *Analisis Laporan Keuangan*. Jakarta: PT Raja Grafindo Persada, 2008.
25. G. P. Solihati, "the Influence of Debt To Equity Ratio, Current Ratio, and Net Profit Margin on Stock Price," *EPRA Int. J. Econ. Bus. Manag. Stud.*, no. August, pp. 81–91, 2021, doi: <https://doi.org/10.36713/epra1013>.
26. F. Colline, "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," *Peer-Reviewed Artic. J. Keuang. dan Perbank.*, vol. 26, no. 1, pp. 2443–2687, 2022, doi: <https://doi.org/10.26905/jkdp.v26i1.6882>.
27. W. Suhendry, "Effect of Debt to Equity Ratio and Current Ratio on Company Value with Return on Assets as Intervening Variable in Consumer Goods Industrial Companies Listed

- on the Indonesia Stock Exchange for the 2015–2018 Period,” *J. Econ. Financ. Manag. Stud.*, vol. 04, no. 08, pp. 1444–1449, 2021, doi: <https://doi.org/10.47191/jefms/v4-i8-22>.
28. M. Markonah, A. Salim, and J. Franciska, “Effect of Profitability, Leverage, and Liquidity To the Firm Value,” *Dinasti Int. J. Econ. Financ. Account.*, vol. 1, no. 1, pp. 83–94, 2020, doi: <https://doi.org/10.38035/dijefa.v1i1.225>.
 29. I. G. A. P. T. Putri, “Effect of capital structure and sales growth on firm value with profitability as mediation,” *Int. Res. J. Manag. IT Soc. Sci.*, pp. 145–155, 2020, doi: <https://doi.org/10.21744/irjmis.v7n1.833>.
 30. W. Rupilu, “Enrichment : Journal of Management Analysis Of The Effect Of Financial Performance, Investment Opportunity Set, Free Cash Flow And Csr Disclosure On Company Value,” *Enrich. J. Manag.*, vol. 12, no. 4, 2022.
 31. M. Chabachib, T. U. Fitriana, H. Hersugondo, I. D. Pamungkas, and U. Udin, “Firm value improvement strategy, corporate social responsibility, and institutional ownership,” *Int. J. Financ. Res.*, vol. 10, no. 4, pp. 152–163, 2019, doi: <https://doi.org/10.5430/ijfr.v10n4p152>.
 32. N. Susanti, V. W. Widajatun, M. B. A. Sumantri, and N. M. Nugraha, “Implications of Intellectual Capital Financial Performance and Corporate Values (Studies on Goods and Consumption Sector 2013-2017 period),” *Int. J. Psychosoc. Rehabil.*, vol. 24, no. 07, pp. 6588–6599, 2020.
 33. E. F. Brigham and J. F. Houston, *Fundamentals of financial management*. Cengage Learning, 2021.
 34. B. Andriani, “Influence of Ownership Structure on Company Profitability and Value In Companies,” *ATESTASI J. Ilm. Akunt.*, vol. 4, no. 1, pp. 112–119, 2021, doi: <https://doi.org/10.33096/atestasi.v4i1.727>.
 35. T. Restianti and L. Agustina, “The Effect of Financial Ratios on Financial Distress Conditions in Sub Industrial Sector Company,” *Account. Anal. J.*, vol. 7, no. 1, pp. 25–33, 2018, doi: <https://doi.org/10.15294/aa.j.v5i3.18996>.
 36. U. A. Ibrahim, “Effect of Financial Leverage on Firm Value: Evidence From Selected Firms Quoted on the Nigerian Stock Exchange,” *Eur. J. Bus. Manag.*, pp. 124–135, 2020, doi: <https://doi.org/10.7176/ejbm/12-3-16>.
 37. I. S. Machfiroh, A. N. Pyadini, and A. Riyani, “Analysis Of The Effect Of Liquidity, Solvability And Profitability On Stock Prices In Agricultural Sectors Listed In Indonesia Stock Exchange (IDX),” *Bilancia J. Ilm. Akunt.*, vol. 4, no. 1, pp. 22–34, 2020.
 38. R. Sondakh, “the Effect of Dividend Policy, Liquidity, Profitability and Firm Size on Firm Value in Financial Service Sector Industries Listed in Indonesia Stock Exchange 2015-2018 Period,” *Accountability*, vol. 8, no. 2, p. 91, 2019, doi: <https://doi.org/10.32400/ja.24760.8.2.2019.91-101>.
 39. D. Mesak, “Financial Ratio Analysis in Predicting Financial Conditions Distress in Indonesia Stock Exchange,” *Russ. J. Agric. Socio-Economic Sci.*, vol. 86, no. 2, pp. 155–165, 2019, doi: <https://doi.org/10.18551/rjoas.2019-02.18>.
 40. P. J. Vishal and V. A. Roy, *Exploring the Mediating Role of Intellectual Capital and Competitive Advantage on the Relation between CSR and Financial Performance in SMEs*, vol. 13, no. 1. Social Responsibility Journal, 2017. [Online]. Available: <https://www.emerald.com/insight/content/doi/10.1108/SRJ-01-2017-0012/full/html>
 41. A. Ardiyanto, N. Wahdi, and A. Santoso, “Pengaruh Return on Assets, Return on Equity, Earning Per Share dan Price To Book Value Terhadap Harga Saham,” *J. Bisnis dan Akunt. Unsurya*, vol. 5, no. 1, pp. 33–49, 2020.
 42. S. N. Grigoriev, J. Y. Yeleneva, A. A. Golovenchenko, and V. N. Andreev, “Technological capital: A criterion of innovative development and an object of transfer in the modern economy,” *Procedia CIRP*, vol. 20, no. C, pp. 56–61, 2014, doi: <https://doi.org/10.1016/j.procir.2014.06.144>.

43. H. M. Sari, I. Nurhayati, and R. S. Aminda, "Pengaruh Current Ratio Debt To Equity Ratio Earning Per Share Dan Price Earning Ratio Terhadap Harga Saham," *Manag. J. Ilmu Manaj.*, vol. 3, no. 4, p. 540, 2020, doi: <https://doi.org/10.32832/manager.v3i4.3929>.
44. M. Nadeem, T. DE Silva, and U. N. Kayani, "Predicting Corporate Financial Distress for New Zealand Listed Firms Using Intellectual Capital Indicators," *New Zeal. J. Appl. Bus. Res.*, vol. 14, no. 2, pp. 1–15, 2016.
45. R. A. S. Pratiwi and B. H. Santoso, "Pengaruh ROA, ROE, EPS Dan CR Terhadap Harga Saham Perusahaan Food And Beverages Di BEI," *J. Ilmu dan Ris. Manaj.*, vol. 8, no. 8, pp. 1–15, 2019.
46. R. Khairani, M. F. Haikal, S. Ramadhani, N. Gustia, and F. R. A. F. Sitompul, "Pengaruh Debt to Equity Ratio, Earning Per Share, dan Net Profit Margin Terhadap Harga Saham pada Industri Manufaktur Konsumsi Makanan dan Minuman," *J. Econ. Bussines Account.*, vol. 4, no. 1, pp. 90–95, 2020, doi: <https://doi.org/10.31539/costing.v4i1.1349>.
47. D.- Kurnia, "Pengaruh Return On Equity, Earning Per Share Dan Debt To Equity Ratio Terhadap Harga Saham Syariah," *Akunt. J. Akunt. Integr.*, vol. 6, no. 01, pp. 25–39, 2020, doi: <https://doi.org/10.29080/jai.v6i01.241>.
48. J. V. Wardhani, L. P. Widianingsih, and F. Karundeng, "The Effect Of Company Size, Profitability, Leverage, And Management Ownership Towards The Level Of Corporate Social Responsibility (CSR) Disclosure," *J. Accounting, Entrep. Financ. Technol.*, vol. 1, no. 1, pp. 39–60, 2019, doi: <https://doi.org/10.37715/jaef.v1i1.1338>.
49. J. Xu and F. Liu, "The impact of intellectual capital on firm performance: A modified and extended vaic model," *J. Compet.*, vol. 12, no. 1, pp. 161–176, 2020, doi: <https://doi.org/10.7441/joc.2020.01.10>.
50. H. A. K. El-Habashy, "The effect of corporate governance attributes on accounting conservatism in Egypt," *Acad. Account. Financ. Stud. J.*, vol. 23, no. 3, 2019.
51. A. M. A. M. Al Sartawi and Z. Sanad, "Institutional ownership and corporate governance: evidence from Bahrain," *Afro-Asian J. Financ. Account.*, vol. 9, no. 1, p. 101, 2019, doi: <https://doi.org/10.1504/aajfa.2019.10017933>.
52. M. Aisyah, "Consumer Demand on Halal Cosmetics and Personal Care Products in Indonesia," *Al-Iqtishad J. Islam. Econ.*, vol. 9, no. 1, pp. 125–142, 2016, doi: <https://doi.org/10.15408/aiq.v9i1.1867>.
53. P. Román-Román, D. Romero, M. A. Rubio, and F. Torres-Ruiz, "Estimating the parameters of a Gompertz-type diffusion process by means of Simulated Annealing," *Appl. Math. Comput.*, vol. 218, no. 9, pp. 5121–5131, 2012, doi: <https://doi.org/10.1016/j.amc.2011.10.077>.
54. A. Husna and 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, pp. 50–54, 2019, doi: <https://doi.org/10.32479/ijefi.8595>.
55. N. Nurcahyono, F. Sukesti, and A. Alwiyah, "Covid 19 Outbreak and Financial Statement Quality: Evidence from Central Java," *AKRUAL J. Akunt.*, vol. 12, no. 2, p. 193, 2021, doi: <https://doi.org/10.26740/jaj.v12n2.p193-203>.
56. Habibu Ayuba, Abdu Ja'afaru Bambale, Murtala Aminu Ibrahim, and Sulaiman Abdulwahab Sulaiman, "Effects of financial performance, capital structure and firm size on firms value of Insurance companies in Nigeria," *J. Financ. accounting, Manag.*, vol. 10, no. 1, pp. 57–74, 2019, [Online]. Available: <https://web-p-ebsohost-com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?vid=0&sid=97ae76ac-2057-4cc8-9c9f-28a0d8c88adb%40redis>
57. D., G. Suralim, J. Tarigan, and S. Elsyte Hatane, "Linking Budgetary Participation to Budgetary Slack: An Indonesia Perspective," *Int. J. Eng. Technol.*, vol. 7, no. 4.38, p. 837, 2018, doi: <https://doi.org/10.14419/ijet.v7i4.38.27556>.

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