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The Influence of Board of Directors and Independent Commissioners on Firm Value in the Technology Sector Listed on the IDX, 2021–2023

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ABSTRACT

This study aims to analyze the effect of the board of directors and the proportion of independent commissioners on firm value in technology sector companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. Motivated by the dynamic nature of the technology industry, where rapid market shifts challenge conventional governance frameworks, the research employs a quantitative approach using audited annual financial statements and company reports. Board size and independent commissioner proportion serve as independent variables, while firm value is measured through Tobin's Q ratio. Analytical methods include multiple linear regression and classical assumption testing. The findings demonstrate that neither board size nor the proportion of independent commissioners significantly affects firm value. This suggests that traditional corporate governance mechanisms may be insufficient to shape market perceptions within innovation-driven sectors. Accordingly, the study advocates for more adaptive and context-specific governance practices to foster long-term value creation in technology firms.

Keywords : Board of Directors; Firm Value; Independent Commissioners; Indonesia Stock Exchange; Technology Sector.

I. INTRODUCTION

Companies play a vital role in managing resources and producing goods with the primary objective of generating profit, enhancing shareholder welfare, and strengthening firm value (Veronica, 2018) In Indonesia, various types of companies operate, including private companies that do not offer shares to the public, and public companies that conduct an Initial Public Offering (IPO).

The Indonesia Stock Exchange (IDX) classifies companies operating in Indonesia into eleven sectors, including Healthcare, Basic Materials, Financials, Transportation & Logistics, Technology, Consumer Non-Cyclicals, Industrials, Energy, Consumer Cyclicals, Infrastructure, and Property & Real Estate (Bursa Efek Indonesia, 2020). Technology sector companies listed on the Indonesia Stock Exchange (IDX) have made a significant contribution to advancing the country's digital economy (Salam, 2022). This sector is driven by continuous innovation and emerging developments, attracting investors due to the growing public demand for technology. However, it is crucial to recognize that investors cannot simply allocate capital to all technology companies indiscriminately. A more rigorous approach is required, involving a comprehensive analysis of each company, including an assessment of its stock price performance (Novi Sintya Dewi et al., 2022).

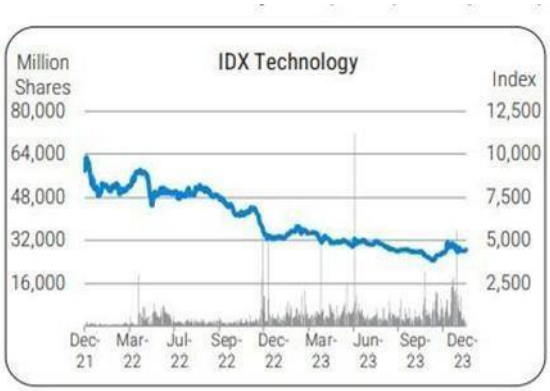

Image 1. IDX Technology 2021-2023

As illustrated in Figure 1, the IDX Technology Index on the Indonesia Stock Exchange (IDX) recorded a sharp decline of more than 60%, falling from approximately 12,000 at the end of 2021 to 4,000 by the end of 2023. This drop was influenced by the weakened performance of technology companies listed on the IDX, leading to diminished investor

confidence and market capitalization, which ultimately impacted the overall value of the index (Nurlaily et al., 2023). Although there was a stabilization trend in 2023, the sector continues to face significant challenges in restoring investor trust.

This decline also reflects the rapidly evolving dynamics of the technology sector. Consequently, business entities must adapt to changes in market conditions and regulations, and innovate to remain competitive. Thus, the IDX Technology data highlights both the challenges and opportunities to gain deeper insights into the strategic role of corporate management and financial aspects in enhancing market capitalization amid a dynamic market environment (BEI, 2011).

Good Corporate Governance is believed to enhance firm value through transparency, accountability, and effective oversight. The board of directors and independent commissioners are two key components of governance structure, responsible for directing and supervising corporate operations. According to Agency Theory, their presence is expected to minimize conflicts of interest between management and shareholders. Meanwhile, Signaling Theory emphasizes that a strong governance structure can send positive signals to the market regarding the firm's future prospects.

Previous research has produced mixed findings. Some studies have identified a positive influence of the board of directors and independent commissioners on firm value (Oktaviani, 2019); (Purwitaningsari, 2021), while others have reported insignificant or even negative effects (Agustin et al., 2023); (Indarto & Purwanto, 2023). A key limitation of prior studies lies in their lack of focus on the technology sector, which possesses unique characteristics such as a high level of innovation and rapidly shifting market dynamics. Furthermore, most research has aggregated multiple industry sectors, making the results less reflective of the specific conditions within the technology sector.

This study addresses the limited empirical research specifically examining the impact of governance structures on firm value within the context of Indonesia's technology sector. Accordingly, it aims to analyze the influence of board size and the proportion of independent commissioners on firm value among technology companies listed on the Indonesia Stock Exchange during the 2021–2023 period. The study offers novelty by isolating the technology sector as its primary focus and employing

Tobin's Q as a firm value indicator that captures market valuation more comprehensively.

The hypotheses proposed in this study are:

- Board size has a positive effect on firm value.
- The proportion of independent commissioners has a positive effect on firm value.

II. RESEARCH METHOD

This study employs a quantitative research method using secondary data obtained from annual reports and financial statements sourced from the official websites of the respective companies and the Indonesia Stock Exchange.

The population of this study consists of technology sector companies listed on the Indonesia Stock Exchange. The researcher applies purposive sampling, a technique in which sample selection is based on specific predetermined criteria (Sugiyono, 2020). The researcher applied the following sample selection criteria:

1. Companies listed under the IDXTECHNO index.
2. IDXTECHNO companies that have published financial reports for the 2021–2023 period.
3. Companies that conducted their Initial Public Offering (IPO) prior to 2021.

These criteria were established to ensure the availability of stable market capitalization data throughout the research period, avoid bias resulting from post-IPO volatility, and maintain consistency in the financial reports utilized. In addition, the selection of the technology sector was based on its industry dynamics, which are relevant to the research variables. The 2021–2023 timeframe was chosen to ensure that the data analyzed reflects current conditions. The research sample consists of 20 companies that meet all of the specified criteria.

Table 1. Sample Selection Criteria

No	Kriteria	Jumlah
1	Perusahaan yang terdaftar pada indeks IDXTECNO	44
2	Perusahaan IDXTECHNO yang melaporkan laporan keuangan periode 2021-2023	44
3	Perusahaan yang melakukan IPO sebelum tahun 2021	20
4	Perusahaan yang menyediakan informasi kurang lengkap	24
Total		20
Jumlah Tahun Penelitian		3
Total		60

III. RESULTS AND DISCUSSION

1. Descriptive Statistical Analysis

Table 2. Decriptive Statistical Analysis

	N	Min.	Max.	Mean	Std. Deviation
UUD	60	2,00	7,00	3,6833	1,28210
KI	60	0,25	1,50	0,5125	0,28036
NP	60	0,08	9,55	1,8612	1,95599
Valid N (list wise)	60				

Source: Processed Data SPSS Ver.25

Based on the table above, the descriptive statistical analysis shows that the minimum board size among the sample companies is 2 members, while the maximum is 7 members. The average board size is 3.6833, indicating that board membership across the sample generally ranges from 2 to 7 individuals, with an average of approximately 3 to 4 members.

The table also reveals that the minimum proportion of independent commissioners is 0.25 or 25%, suggesting that only a quarter of the total board of commissioners consists of independent members. The highest observed proportion is
1.50 or 150%. The average proportion of independent commissioners is 0.5125, with a standard deviation of 0.28036. This indicates that the proportion of independent commissioners falls within a relatively narrow range, illustrating that the sampled companies tend to exhibit a fairly uniform level of independent oversight.

Furthermore, the table shows that the average firm value, measured using Tobin's Q, is 1.8612 with a standard deviation of 1.95599. This implies that companies with a Tobin's Q above 1 are perceived to have positive growth prospects, whereas those with values below 1 may face challenges in generating market value.

2. Test classical assumptions

2.1 Normality Test

Table 3. Normality Test

One-sample Kolmogorov-Smirnov Test

N		60
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.93315846
Most Extreme Differences	Absolute	.074
	Positive	.051
	Negative	-.074
Test Statistic		.074
Asymp. Sig. (2-tailed)		.200[c,d]

Source: Processed Data SPSS Ver.25

Based on the normality test results, the Asymp. Sig. (2-tailed) value was 0.200, which is greater than the threshold of 0.05. According

to the Kolmogorov-Smirnov test, this indicates that the data is normally distributed. Therefore, the classical assumption testing can proceed to the subsequent stages.

3.2 Multicollinearity Test

Table 4. Multicollinearity Test
Coefficients

Model	Collinearity Tolerance	Statistics VIF
(Constant)		
UUD	0,963	1,039
KI	0,939	1,065

Source: Processed Data SPSS Ver.25

Based on the data above, the variables Board Size (DD), and Independent Commissioner Proportion (KI) exhibit Tolerance values greater than 0.1 and Variance Inflation Factor (VIF) values below 10. This indicates that multicollinearity is not present in the data, allowing the analysis to proceed to the next step.

3.3 Heteroskedasticity Test

Table 5. Heteroskedasticitiy Test
Coefficients

Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	T	Sig.
Constant	0,812	0,251		3,234	0,002
UDD	-0,038	0,059	-0,087	-0,646	0,521
KI	0,112	0,274	0,056	0,410	0,683

Source: Processed Data SPSS Ver.25

Based on the data above, the variables Board Size (DD) and Independent Commissioner Proportion (KI) exhibit significance values greater than 0.05. This indicates that heteroscedasticity is not present, allowing the analysis to proceed to the next step.

3.4 Autocorrelation Test

Table 6. Autocorrelation Test
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,141[a]	0,020	-0,033	0,57135	1,561

Source: Processed Data SPSS Ver.25

Based on the data above, the following values were obtained:
DU = 1.6889
DW = 1.561
4 − DU = 2.3111
When substituted into the Durbin-Watson criteria—DU < DW < 4 − DU (1.6889 < 1.561 < 2.3111)—the condition is not satisfied. As a result, it is concluded that autocorrelation is present in the data. To address this issue, the data was corrected using the Cochrane-Orcutt method, which involves transforming the model using Lag(1).

Chocrane Orcut method

Table 7. Chocrane Orcut method
Model Summary[b]

Mod	R	R Squar	Adjus ted R	Std. Error of	Durbi n-

el		e	Square	the Estimate	Watson
1	0,360[a]	0,130	0,082	0,94633	1,980

Source: Processed Data SPSS Ver.25

After applying the Cochrane-Orcutt method, the following values were obtained:

DU = 1.6889

DW = 1.9800

4 − DU = 2.3111

These values were then tested against the Durbin-Watson condition: DU < DW < 4 − DU (1.6889 < 1.9800 < 2.3111).

Since the condition is satisfied, it can be concluded that the data does not exhibit symptoms of autocorrelation.

3. Coefficient of Determination Test

Table 8. Coefficient of Determination Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,393[a]	0,154	0,108	0,33980

Source: Processed Data SPSS Ver.25

Based on the results obtained, the coefficient of determination (R^2) is 0.108, indicating that 10.8% of the variation in the dependent variable is explained by the independent variables. The remaining 89.2% is influenced by other factors not accounted for in this study.

4. Simultaneous Test

Table 9. Simultaneous Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,158	3	0,386	3,343	0,026[b]
Residual	6,351	55	0,115		
Total	7,508	58			

Source: Processed Data SPSS Ver.25

Based on the results presented in the table above, the significance value in the ANOVA table is 0.026, which is less than the threshold of 0.05. This indicates that the variables Board Size (DD), Independent Commissioner Proportion (KI), and Return on Assets (ROA) simultaneously have a statistically significant effect on the dependent variable Tobin's Q.

5. Partial Test

Table 10. Partial Test

Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	T	Sig.
Costant	1,023	0,138		7,398	0,000
UUD	-0,009	0,040	-0,028	-0,219	0,827
KI	0,263	0,182	0,184	1,449	0,153

Source: Processed Data SPSS Ver.25

Based on the data above, the following conclusion can be drawn: According to the partial test (T-test) in the regression model presented in Table 4.9, the significance value for the Board Size (UDD) variable is 0.827, and for the Independent

Commissioner Proportion (KI) variable is 0.153. Both values exceed the commonly accepted significance threshold of 0.05, indicating that UDD and KI do not have a statistically significant effect on Tobin's Q.

IV. CONCLUSION

This study concludes that board size and the proportion of independent commissioners do not have a significant effect on firm value in the technology sector listed on the Indonesia Stock Exchange. The ineffectiveness of conventional governance structures reflects the challenges of operating within an industry characterized by competitiveness, innovation, and rapid transformation. Therefore, a more adaptive and context-specific governance approach is required to enhance firm value in this sector.

The research findings highlight the crucial role of independent commissioners in supporting firm value within the technology sector. Companies are advised to strengthen their governance structures by increasing the proportion of independent commissioners. These findings are also relevant for investors and regulators in formulating policies and investment decisions that promote corporate transparency and accountability.

This study has several methodological limitations. First, the sample is limited to technology sector companies listed on the Indonesia Stock Exchange during the 2021–2023 period, which restricts the generalizability of the findings to other sectors or time frames. Second, the use of secondary data from financial statements and annual reports may be affected by variability in the quality and completeness of the available information. Third, since the variables of board size and proportion of independent commissioners did not exhibit a significant effect on Tobin's Q, the moderation analysis was not pursued, in accordance with established methodological guidelines (Ghozali, 2018).

Future research is recommended to examine additional variables that may influence firm value, such as macroeconomic factors, technological innovation, and product quality. Subsequent studies should also consider a broader range of industry sectors to obtain a more comprehensive understanding of the relationship between governance structures and firm value.

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