

# Governance Mechanisms and Dividend Policy: Evidence from Industrial Companies in Indonesia

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## ABSTRACT

Profits attract the attention of stakeholders, especially creditors, managers, and shareholders. Creditors, either banks or bondholders, must be guaranteed that the company performs well because it must pay interest or coupons. For managers, the profits are one of the internal financing sources when the company retains them. If the company pays them for shareholders, dividends will exist, and vice versa. The related decision is also called dividend policy. For shareholders, dividends become the element of their wealth. This investigation aims to prove and analyze the impact of governance mechanisms on dividend policy with the population and samples from the industrial companies listed on the Indonesian capital market between 2017 and 2022. These mechanisms cover institutional ownership, supervisory board size, and liability policy. Besides, the samples are randomly taken from the population, and the data are analyzed using the Tobit regression model estimated by the maximum likelihood technique. After checking the associated hypotheses, this study concludes that institutional ownership and supervisory board size positively affect dividend policy. Unfortunately, a negative association occurs between liability and dividend policy. Based on these facts, public investors can consider choosing the company as the dividend payer based on the high institutional ownership, more supervisory board number, and low debt level.

**Keywords:** debt policy, dividend policy, governance, institutional ownership, supervisory board

## INTRODUCTION

As public companies, maximizing shareholder prosperity, reflected by the increasing stock price, becomes their final destination (Arisanty & Riyanto, 2022), where dividend policy is the determinant (Kayode et al., 2022; Yuliana et al., 2021). This policy refers to their decision to pay or retain their earnings (Hameed et al., 2021). The firms paying dividends compensate the shareholders because of their braveness to put their money at risk (Black, 1976). For those with dividend payments, positive market responses exist during the announcement dates (Sawitri & Arifin, 2022). Conversely, companies that do not pay dividends need the funds to reinvest in new projects or have financial difficulties. For them, a negative market response occurs during the announcement dates (Sawitri & Arifin, 2022).

To result in dividends leading to wealth maximization, the firms should consider the governance mechanisms. These mechanisms will protect the public investors from the private benefit control of the largest shareholders. Hence, the governance mechanism suggests that the most significant shareholders pay dividends to limit this control (Rodrigues et al., 2020). If this perspective exists, institutional ownership should positively affect the dividend policy (Bataineh, 2021; Boshnak, 2023; Huey & Marsidi, 2022; Kaur & Kaur,

2024; Khan, 2022; Rodrigues et al., 2020; Widodo et al., 2021), as the rent extraction limitation theory declares (Gugler & Yurtoglu, 2003). Unfortunately, these results are still conflicting, reflected by the studies with a negative propensity (Aleknėvičienė & Vilimaitė, 2023) and a meaningless tendency (Hameed et al., 2021).

The supervisory board becomes one of the governance mechanisms related to dividend policy (Rodrigues et al., 2020). Unfortunately, the results of conflicting supervisory boards and dividend policy relationships still exist. In their investigation, Khan (2022), Saliya and Dogukanli (2022), Kumar et al. (2023), Zahid et al. (2023), Kaur and Kaur (2024), and Rodrigues et al. (2020) reveal a positive tendency confirming the resource dependence theory suggesting the large supervisory boards (Ning et al., 2010). On the other hand, Dissanayake and Dissabandara (2021) document a negative sign only in the hotel industry. For other industries, there is no significant impact. This negative tendency aligns with the agency theory, preferring small supervisory boards (Lipton & Lorsch, 1992). Meanwhile, Boshnak (2023) documents no tendency.

Debt becomes another governance mechanism for disciplining managers and controlling shareholders from expropriation if bankruptcy awareness is high (Musa et al., 2019). Therefore, creditors monitor firms through debt contracts, as debt contract protection theory declares (Easterbrook, 1984; Kalay, 1982). Consequently, a negative connection between debt and dividends is predictable (Aleknėvičienė & Vilimaitė, 2023; Boshnak, 2023; Hameed et al., 2021; Huey & Marsidi, 2022; Khan, 2022; Kumar et al., 2023; Saliya & Dogukanli, 2022; Surbakti et al., 2019; Zahid et al., 2023). Nevertheless, inconsistent results occur, for instance, a positive sign (Rodrigues et al., 2020) and a worthless propensity (Louziri & Oubal, 2022; Widodo et al., 2021).

Because of these various results, this study inspects and analyzes the influence of institutional ownership, supervisory board size, and debt policy on dividend policy by utilizing the industrial companies in the Indonesian Share Exchange from 2017 until 2022. According to IDX (2021), the industrial sector consists of the firms providing final goods and services consumed by the producers, not final customers. Besides, the utilization of these companies occurs because they become non-dividend payers (see their ratio between 80.21% and 87.50% in Table 1).

Table 1. Total industrial companies with and without dividend payments from 2017 to 2022 based on the population

Description	2017	2018	2019	2020	2021	2022
Total dividend payers	19	18	19	13	12	15
Total non-dividend payers	77	78	77	83	84	81
Total companies	96	96	96	96	96	96
Ratio of dividend payers	19.79%	18.75%	19.79%	13.54%	12.50%	15.63%
Ratio of non-dividend payers	80.21%	81.25%	80.21%	86.46%	87.50%	84.38%

### LITERATURE REVIEW

In the capital market, institutions such as pension funds, insurance, and investment firms or banks are the large investors that own publicly listed companies (Aleknėvičienė & Vilimaitė, 2023). In a concentrated ownership structure, these institutions can powerfully control managers; therefore, the conflict between shareholders and managers disappears. Instead, another conflict between large and minor shareholders appears, and legal protection for the minority becomes an issue. In this structure, large stockholders often have the discretion and the motivation to get their private control benefit by not paying dividends. Hence, to avoid this tendency, large stockholders must be willing to pay dividends (Gugler

& Yurtoglu, 2003). Based on this rent extraction limitation theory, a positive relationship between institutional ownership and dividend policy is probable. In their investigation, Rodrigues et al. (2020), Bataineh (2021), Widodo et al. (2021), and Huey and Marsidi (2022) reveal that the more shares owned by the institution, the more dividends are paid, respectively. Meanwhile, Boshnak (2023), Kumar et al. (2023), and Kaur and Kaur (2024) discovered that institutional ownership positively correlates with dividend payout policy. By denoting this illumination, the first hypothesis is created:

H<sub>1</sub>: Institutional ownership positively influences dividend policy.

The agency theory recommends a supervisory board with few numbers. In this situation, these board members can effortlessly express their ideas and opinions in their limited time (Lipton & Lorsch, 1992). Therefore, they can monitor and supervise managers effectively to align with shareholder interests (Fama, 1980). Rodrigues et al. (2020) state that the better governance, the higher the dividends to protect public shareholders. Based on this agency theory, the fewer supervisory boards, the more enormous dividends there will be, as confirmed by Dissanayake and Dissabandara (2021), declaring a negative tendency only in the hotel and travel industry. For the other industries, i.e., (1) manufacturing, (2) food and beverage, (3) diversified, (4) land and property, and (5) plantation, this board size does not affect the dividend payout level. By referring to this illumination, the second hypothesis is created:

H<sub>2</sub>: Supervisory board size negatively influences dividend policy.

Creditors know that shareholders will use more debt to finance projects by transferring their wealth to shareholders in two ways. Firstly, when they receive debt, they reduce the budgeted amount of projects and pay this reduced amount as dividends. Secondly, they directly use the net proceeds of the debt to be paid as dividends (Kalay, 1982). Therefore, creditors with this information will limit dividend payments through debt contracts (Easterbrook, 1984; Hameed et al., 2021; Kalay, 1982). In their research, Surbakti et al. (2019), Hameed et al. (2021), Huey and Marsidi (2022), Khan (2022), Boshnak (2023), Kumar et al. (2023), Saliya and Dogukanli (2022), Aleknevičienė and Vilimaitė (2023), and Zahid et al. (2023) affirm this perspective by declaring the negative relationship between financial leverage and dividend policy. Based on this illumination, the third hypothesis is created:

H<sub>3</sub>: Debt negatively influences dividend policy.

## METHOD

### Variable Definition

This study employs three kinds of variables. The first is the dependent, i.e., dividend policy measured by its payout ratio, as Hameed et al. (2021), Dissanayake and Dissabandara (2021), Widodo et al. (2021), Huey and Marsidi (2022), Khan (2022), Saliya and Dogukanli (2022), Aleknevičienė and Vilimaitė (2023), Boshnak (2023), Louziri and Oubal (2022), Zahid et al. (2023), and Kaur and Kaur (2024) utilize.

The second is the primary independent variables: institutional ownership, supervisory board size, and debt policy:

1. Mentioning Bataineh (2021), Hameed et al. (2021), Widodo et al. (2021), Huey and Marsidi (2022), Khan (2022), Aleknevičienė and Vilimaitė (2023), Boshnak (2023), Kumar et al. (2023), and Kaur and Kaur (2024), the ratio of shares belonging to the institution measures institutional ownership.
2. Mentioning Rodrigues et al. (2020), Dissanayake and Dissabandara (2021), Khan (2022), Saliya and Dogukanli (2022), Boshnak (2023), Kumar et al. (2023), Zahid et al. (2023), and Kaur and Kaur (2024) the total number of supervising board is used to measure its size.

3. Mentioning Surbakti et al. (2019), Dissanayake and Dissabandara (2021), Khan (2022), Saliya and Dogukanli (2022), Aleknevičienė & Vilimaitė (2023), Boshnak (2023), Kumar et al. (2023), and Zahid et al. (2023), the debt-to-assets ratio quantifies debt policy.

Meanwhile, the third is the control variable: firm size and profitability. Utilizing the natural logarithm of total assets to measure firm size mentions Rodrigues et al. (2020), Dissanayake and Dissabandara (2021), Widodo et al. (2021), Louziri and Oubal (2022), Aleknevičienė and Vilimaitė (2023), Boshnak (2023), Kumar et al. (2023), Zahid et al. (2023), and Kaur and Kaur (2024). Additionally, return on assets (ROA) to quantify profitability refers to Bataineh (2021), Widodo et al. (2021), Khan (2022), Aleknevičienė and Vilimaitė (2023), Boshnak (2023), Zahid et al. (2023), and Kaur and Kaur (2024). Furthermore, the summary of the dividend policy, institutional ownership, the supervisory board size, debt policy, firm size, profitability measurement, and the symbol are in Table 2 below.

Table 2. The measurement of dividend policy and its determinants

Position	Variable	Indicator (at the end of the year)	Symbol
Dependent Variable	Dividend Policy	Dividend payout ratio	DPR
Primary Independent variable	Institutional Ownership	The ratio of shares owned by the institution	IO
	Supervisory Board Size	The number of people serving as monitoring board	SBS
	Debt Policy	The debt-to-assets ratio	DAR
Control Variable	Firm Size	The logarithm natural of total assets	LN(TA)
	Firm Profitability	Return on assets	ROA

### Population and Samples

The population comes from industrial companies in the Indonesian Stock Exchange between 2017 and 2022, not IPO-listed companies, where the total is 38. Furthermore, the Slovin formula based on Firdaus (2021), with a 5% fault border, functions to determine the total sample. Mentioning this formula, 28 companies exist as the number (rounded), and this study randomly takes the companies; their names are in Table 3.

Table 3. The names of the companies as the samples

No.	Code	The name of the company
1.	AMFG	Asahimas Flat Glass Tbk.
2.	AMIN	Ateliers Mecaniques D'Indonesie Tbk.
3.	APII	Arita Prima Indonesia Tbk.
4.	ARNA	Arwana Citramulia Tbk.
5.	ASGR	Astra Graphia Tbk.
6.	ASII	Astra International Tbk.
7.	CTTH	Citatah Tbk.
8.	DYAN	Dyandra Media International Tbk.
9.	HEXA	Hexindo Adiperkasa Tbk.
10.	IBFN	Intan Baru Prana Tbk.
11.	ICON	Island Concepts Indonesia Tbk.
12.	IKAI	Intikeramik Alamasri Industri Tbk.

Table 3. The names of the companies as the samples

No.	Code	The name of the company
13.	IMPC	Impack Pratama Industri Tbk.
14.	INTA	Intraco Penta Tbk.
15.	JECC	Jembo Cable Company Tbk.
16.	JTPE	Jasuindo Tiga Perkasa Tbk.
17.	KBLI	KMI Wire & Cable Tbk.
18.	KBLM	Kabelindo Murni Tbk.
19.	KOBX	Kobexindo Tractors Tbk.
20.	KONI	Perdana Bangun Pusaka Tbk.
21.	MARK	Mark Dynamic Indonesia Tbk.
22.	MDRN	Modern Internasional Tbk
23.	MLIA	Mulia Industrindo Tbk.
24.	TIRA	Tira Austenite Tbk.
25.	TOTO	Surya Toto Indonesia Tbk.
26.	UNTR	United Tractors Tbk.
27.	VOKS	Voksel Electric Tbk.
28.	ZBRA	Dosni Roha Indonesia Tbk.

**The method to collect the data**

This investigation utilizes the archival technique. According to Hartono (2014), this technique is used to obtain secondary data. In this research context, these data come from the annual financial reports from 2017 to 2022. Furthermore, national and international journal publication-based papers are another source.

**The method to analyze the data**

This investigation uses the Tobit regression model to analyze the data. According to Gujarati et al. (2019), this model allows zero and non-zero as an explained variable and ratio scale as the explaining variable and estimates the coefficients based on the maximum likelihood technique. In this research context, the regression model is obtainable in Equation 2.

$$DPR_{it}^* = \beta_0 + \beta_1 IO_{it} + \beta_2 SBS_{it} + \beta_3 DAR_{it} + \beta_4 LN(TA)_{it} + \beta_5 ROA_{it} + \epsilon_{it} \text{ (Equation 2)}$$

where  $DPR_{it}^* = \begin{cases} 0 & \text{if } DPR_{it}^* \leq 0 \\ One & \text{if } DPR_{it}^* > 0 \end{cases}$

When this technique is applied, the censoring degree in the Tobit model can cause heteroskedasticity, leading to inconsistent estimators. Therefore, this issue should not exist (Greene, 2019). One of the tests to detect this issue is the White without cross-term (Gujarati et al., 2019). Also, Greene (2019) explains that the Cragg test is essential in the Tobit model to ensure that the probability of the limited observation model is not associated with the probability of the non-limited observation model. Moreover, to prove it, the likelihood ratio (LR) and its probability must be calculated based on the log-likelihood (logl) of the Tobit, probit, and truncated models. The Cragg test is fulfilled if the probability is higher than or the same as the 5% significance level. If it happens, the Tobit model will be applicable.

Like multiple regression, multicollinearity detection is applicable because this Tobit model involves several determinants. Therefore, this study uses a correlation matrix to detect it, as Ghozali (2021) explains. This multicollinearity does not happen if the correlation between two independent variables is meaningless (Fitri et al., 2023).

## RESULTS

### Descriptive Statistics

Table 4 presents the descriptive statistics of the indicator of dividend policy (DPR), institutional ownership (IO), supervisory board size (SBS), debt policy (DAR), firm size [LN(TA)], and profitability (ROA) based 168 observations: 28 industrial companies and six years from 2017 to 2022. The statistics utilized cover the most inferior and outstanding values, as well as average and standard deviation:

1. The DPR has the most inferior and outstanding values of 0 and 1.9739, respectively, with an average of 0.1887 and a standard deviation of 0.3237.
2. The IO has the most inferior and outstanding values of 0.1398 and 0.9813, one-to-one, with an average of 0.6787 and a standard deviation of 0.2193.
3. The SBS has the most inferior and outstanding values of one and twelve, separately, with an average of 3.6548 and a standard deviation of 1.8954.
4. DAR has the most inferior and outstanding values of 0.0999 and 3.0200, singly, with an average of 0.7139 and a standard deviation of 0.6520.
5. LN(TA) has the most inferior and outstanding values of 8.5611 and 29.6008, respectively, with an average of 14.7941 and a standard deviation of 3.3283.
6. ROA has the most inferior and outstanding values of -1.2162 and 0.5143, one-to-one, with an average of 0.0187 and a standard deviation of 0.1633.

Table 4. Descriptive statistics for dividend policy (DPR), institutional ownership (IO), supervisory board size (SBS), debt policy (DAR), firm size [LN(TA)], and profitability (ROA)

Indicator	DPR	IO	SBS	DAR	LN(TA)	ROA
The most inferior (decimal)	0.0000	0.1398	1.0000	0.0999	8.5611	-1.2162
The most outstanding (decimal)	1.9739	0.9813	12.0000	3.0200	29.6008	0.5143
Average (decimal)	0.1887	0.6787	3.6548	0.7139	14.7941	0.0187
Standard deviation	0.3237	0.2193	1.8954	0.6520	3.3283	0.1633

### The essential examination results associated with the Tobit regression model

Table 5 exhibits the White heteroskedasticity testing result with the t-statistical probability of  $IO^2$ ,  $SBS^2$ ,  $DAR^2$ ,  $ROA^2$ , and  $LN(TA)^2$  of 0.8089, 0.8185, 0.3964, 0.8180, and 0.7036. These values are still higher than a 5% significance level; consequently, these factors do not affect the squared residual. This situation is confirmed by the probability of an F-statistic greater than 5% significance level: 0.9355. Hence, heteroskedasticity does not exist.

Table 5. White heteroskedasticity examination result:  
 $RESID^2 = f[IO^2, SBS^2, DAR^2, BOC^2, ROA^2, \text{ and } LN(TA)^2]$

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.030870	0.254300	0.121393	0.9035
$IO^2$	0.082968	0.342435	0.242290	0.8089
$SBS^2$	-0.001022	0.004445	-0.229836	0.8185
$DAR^2$	0.041117	0.048351	0.850378	0.3964
$ROA^2$	-0.164569	0.713911	-0.230517	0.8180
$LN(TA)^2$	-0.000272	0.000712	-0.381152	0.7036
F-statistic	0.257553	Probability (F-statistic)		0.9355

Table 6 depicts the Cragg testing result with an LR of 16.535 and its probability of 0.021. This test is already accomplished because this probability is above the 1% significance level: the probability of the limited observation model is not associated with the probability of the non-limited observation model.

Table 6. The Cragg testing result

Log-likelihood of the Tobit model	-92.721	The log-likelihood ratio (LR)	16.535
Log-likelihood of probit model	-73.442	Probability of LR	0.021
Log-likelihood of truncated model	-11.011		

Table 7 displays the Pearson correlation matrix result to detect multicollinearity between the independent variables. The correlation between IO and SBS, DAR, ROA, and LN(TA) is -0.095, 0.008, 0.003, and 0.178, respectively. Meanwhile, the correlation between SBS and DAR, ROA, and LN(TA) is -0.274, 0.157, and 0.276, one-to-one. The correlation between DAR and ROA is -0.297, DAR and LN(TA) is -0.286, and ROA and LN(TA) is 0.178. In summary, these absolute values are between 0.095 and 0.297, below 0.3; therefore, very weak correlations exist based on Fitri et al. (2023). In other words, the multicollinearity does not occur.

Table 7. Pearson Correlation matrix result

Independent variables	IO	SBS	DAR	ROA	LN(TA)
IO	1	-	-	-	-
SBS	-0.095	1	-	-	-
DAR	0.008	-0.274	1	-	-
ROA	0.003	0.157	-0.297	1	-
LN(TA)	0.178	0.276	-0.286	0.178	1

**The estimation result of the Tobit regression model**

Table 8 presents the estimated Tobit regression model with the probability of Z-statistic for IO and SBS less than 5% significance level: 0.0029 and 0.0002 with positive coefficient. This circumstance indicates that the first and second hypotheses declaring that institutional ownership and the supervisory board size positively affect the dividend policy are suitable. The third, stating that debt policy negatively affects dividend policy, is also recognized.

Table 8. The estimation result of the Tobit regression model  
Method: ML - Censored Normal (TOBIT) (Quadratic hill climbing)

Variable	Coefficient	Std. Error	z-Statistic	Probability
C	-0.252381	0.322675	-0.782152	0.4341
IO	0.702813	0.235861	2.979774	0.0029
SBS	0.107133	0.029008	3.693255	0.0002
DAR	-0.544217	0.151870	-3.583440	0.0003
ROA	2.937491	0.662934	4.431049	0.0000
LN(TA)	-0.038724	0.020910	-1.851962	0.0640
Error Distribution				
SCALE:C(7)	0.523297	0.048234	10.84905	0.0000
Left censored observation	98	Right censored observation	0	
Uncensored observation	70	Total observation	168	

## DISCUSSION

This investigation accepts the first hypothesis, declaring that institutional ownership positively affects the dividend policy. Based on the average, the portion of institutions having shares of the companies is 67.87% (see Table 4). This tendency refers to the institution-centered concentration. In this situation, managers always obey the institutions as the firm owners; hence, there is no conflict between them (Gugler & Yurtoglu, 2003). Also, it indicates the willingness of the institutions as the owners not to expropriate the rights of the public shareholders by paying the dividend. Therefore, this fact aligns with the rent extraction limitation theory from Gugler and Yurtoglu (2003) and previous scholars, such as Rodrigues et al. (2020), Bataineh (2021), Widodo et al. (2021), Huey and Marsidi (2022), Boshnak (2023), Kaur and Kaur (2024), using the listed companies in continental European countries, Amman (Turkey), Indonesia, Malaysia, Saudi Arabia, and India, respectively, demonstrating a positive connection between institutional ownership and dividend policy.

This investigation refuses the second hypothesis, declaring that supervisory board size (SBS) negatively affects the dividend policy (DP). Instead, the positive association between SBS and DP confirms the resource dependence theory. According to this theory, a large board with various proficiency effectively accesses the resources needed by the companies and directs managers to result in profits to be paid as dividends. Based on this positive tendency, this study affirms Rodrigues et al. (2020) studying capital market-listed bulky firms with headquarters in continental European countries from 2002 to 2013, and Khan (2022) investigating 67 non-financial and non-utility enterprises shaping Bursa Istanbul (BIST) 100 index between 2013 and 2019. Furthermore, this positive evidence is supported by Saliya and Dogukanli (2022), with 55 non-financial companies becoming the BIST 100 index members from 2011 to 2019 as their samples, Kumar et al. (2023) investigating 1132 non-financial companies from 2015 and 2019 in the National Stock Exchange (NSE) in India. Finally, this positive tendency confirms Zahid et al. (2023) and Kaur and Kaur (2024) researching 663 non-financial companies in the Eastern European capital market from 2010 until 2019 and 30 NSE-listed companies between 2019 and 2021, one-to-one.

This investigation admits the third hypothesis, declaring that the liability policy negatively affects the dividend policy. This propensity confirms the debt contract fulfillment perspective. As the borrower, the company obeys the debt contract by not paying dividends after obtaining funds from the lenders. Thus, this negative tendency confirms the preceding researchers, i.e., Surbakti et al. (2019), Hameed et al. (2021), and Huey and Marsidi (2022) using the listed companies in Indonesia, Pakistan, and Malaysia, one-to-one. Also, this negative fact affirms Khan (2022), Boshnak (2023), Kumar et al. (2023), Saliya and Dogukanli (2022), Aleknevičienė and Vilimaitė (2023), and Zahid et al. (2023) employing the listed enterprises in Turkey, Saudi Arabia, India, Turkey, Nordic, and Baltic countries, and Western European states, individually.

Rent extraction limitation theory proposes that conflict between public and institutional shareholders can be mitigated by dividend payments in a concentrated ownership structure, such as in Indonesia. Therefore, public shareholders should select stocks to get dividends based on firm features, such as having high institutional ownership, having many supervisory board members, and having a small debt ratio. The positive tendency of the institution having a gigantic portion of shares to pay dividends demonstrates their unwillingness to expropriate the public shareholders.

## CONCLUSION

This investigation intends to prove the determinants of dividend policy based on the agency theory and its derivations by utilizing the governance mechanisms: institutional



proprietorship, a supervisory board size, and debt policy. The twenty-eight industrial companies in the Indonesian capital market between 2017 and 2022 are used as examples. Based on the statistical testing with the Tobit regression model, this study reveals that dividend policy is positively affected by institutional ownership and negatively influenced by a liability policy, confirming the rent extraction limitation and debt protection through a legal contract perspective derived from agency theory singly. Meanwhile, the positive tendency of supervisory board size toward dividend policy affirms the resource dependence theory.

Although the theory verification exists, this study still has limitations, such as the single industry from single country utilization and the number of determinants. Based on these limitations, subsequent scholars should utilize non-financial companies from multiple countries in Southeast Asia and use the other primary determinants, like audit committee size, managerial and foreign ownerships, female supervisory board, supervisory board independence, environmental, social, and governance score (ESGS), and auditor reputation to make their research model more faultless.

## REFERENCES

- Aleknevičienė, V., & Vilimaitė, K. (2023). Effect of ownership structure on dividend payments: Evidence from public companies in Nordic and Baltic countries. *Cogent Economics & Finance*, *11*, 2238377. <https://doi.org/10.1080/23322039.2023.2238377>
- Arisanty, R. A. N., & Riyanto, F. D. (2022). The role of stock price to moderate the influence of profitability, solvency, and firm size on firm value in consumer goods companies listed on the Indonesia Stock Exchange between 2015 and 2020. *Jurnal Ekbis: Analisis, Prediksi, & Informasi*, *23*(2), 294–307. <https://jurnalekonomi.unisla.ac.id/index.php/ekbis/article/view/1070>
- Bataineh, H. (2021). The impact of ownership structure on dividend policy of listed firms in Jordan. *Cogent Business and Management*, *8*, 1863175. <https://doi.org/10.1080/23311975.2020.1863175>
- Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*, *2*(2), 8–12. <https://doi.org/10.3905/jpm.1996.008>
- Boshnak, H. A. (2023). The impact of board composition and ownership structure on dividend payout policy: Evidence from Saudi Arabia. *International Journal of Emerging Markets*, *18*(9), 3178–3200. <https://doi.org/10.1108/IJOEM-05-2021-0791>
- Dissanayake, K. T., & Dissabandara, H. (2021). The impact of board of directors' characteristics on dividend policy: Evidence from a developing country. *Corporate Governance and Sustainability Review*, *5*(2), 44–56. <https://doi.org/10.22495/cgsrv5i2p4>
- Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, *74*(4), 650–659. <http://www.jstor.org/stable/1805130>
- Fama, E. F. (1980). Agency problems and the theory of the firm. *The Journal of Political Economy*, *88*(2), 288–307. <https://doi.org/10.1086/260866>
- Firdaus, F. (2021). *Quantitative Research Methodology*. CV. DOTPLUS Publisher.
- Fitri, A., Rahim, R., Nurhayati, N., Pagiling, S. L., Natsir, I., Munfarikhatin, A., Simanjuntak, D. N., Hutagaol, K., & Anugrah, N. E. (2023). *Fundamental Statistics for Research*. Yayasan Kita Menulis.
- Ghozali, I. (2021). *Multivariate Analysis Application by IBM SPSS 26* (10th ed.). Badan Penerbit Universitas Diponegoro.
- Greene, W. H. (2019). *Econometric Analysis* (8th ed.). Pearson.
- Gugler, K., & Yurtoglu, B. B. (2003). Corporate governance and dividend payout policy in

- Germany. *European Economic Review*, 47, 731–758. [https://doi.org/10.1016/S0014-2921\(02\)00291-X](https://doi.org/10.1016/S0014-2921(02)00291-X)
- Gujarati, D. N., Porter, D. C., & Pal, M. (2019). *Basic Econometrics* (6th ed.). McGraw-Hill Education.
- Hameed, A., Hussain, F. Z., Naheed, K., & Shahid, M. S. (2021). The impact of corporate governance on dividend policy: Evidence from Pakistan. *Sustainable Business and Society in Emerging Economies*, 3(3), 353–366. <https://doi.org/10.26710/sbsee.v3i3.1989>
- Hartono, J. (2014). *Business Research Methodology: Misunderstandings and Experiences* (6th ed.). Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.
- Huey, J. L. H., & Marsidi, A. (2022). The impact of ownership structure on dividend payout: Evidence from the listed companies in the property sector in Malaysia. *Journal of Corporate Finance Research*, 16(3), 85–94. <https://doi.org/10.17323/j.jcfr.2073-0438.16.3.2022.85-94>
- Indonesian Stock Exchange. (2021). *New IDX Industrial Classification*. IDX.Co.Id. [https://www.idx.co.id/primary/search/url?id=f4ef89edc9fc4920ab4a6908657fecb7&redirect=https%3A%2F%2Fidx.co.id%2FStaticData%2FNewsAndAnnouncement%2FANNOUNCEMENTSTOCK%2FExchange%2FPeng-00007\\_BEI.POP\\_01\\_2021.zip](https://www.idx.co.id/primary/search/url?id=f4ef89edc9fc4920ab4a6908657fecb7&redirect=https%3A%2F%2Fidx.co.id%2FStaticData%2FNewsAndAnnouncement%2FANNOUNCEMENTSTOCK%2FExchange%2FPeng-00007_BEI.POP_01_2021.zip)
- Kalay, A. (1982). Stockholder-bondholder conflict and dividend constraints. *Journal of Financial Economics*, 10(2), 211–233. [https://doi.org/10.1016/0304-405X\(82\)90014-9](https://doi.org/10.1016/0304-405X(82)90014-9)
- Kaur, J., & Kaur, K. (2024). Board composition, ownership structure, and dividend policy: Evidence from NSE listed companies in India. *International Journal of Law and Management*. <https://doi.org/10.1108/IJLMA-07-2023-0163>
- Kayode, K., Gbenga, O., & Ayobami, R. L. (2022). The effect of dividend policy on share price movement: Focusing on companies listed on the Nigerian stock exchange. *Financial Markets, Institutions, and Risks*, 6(4), 101–118. [https://doi.org/10.21272/fmir.6\(4\).101-118.2022](https://doi.org/10.21272/fmir.6(4).101-118.2022)
- Khan, A. (2022). Ownership structure, board characteristics, and dividend policy: Evidence from Turkey. *Corporate Governance*, 22(2), 340–363. <https://doi.org/10.1108/CG-04-2021-0129>
- Kumar, S., Sasidharan, A., Olasiuk, H., & Vihari, N. S. (2023). Does board independence matter for dividend policy in emerging economies? *Procedia Computer Science*, 221, 853–860. <https://doi.org/10.1016/j.procs.2023.08.061>
- Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 48(1), 59–77. <https://www.jstor.org/stable/40687360>
- Louziri, R., & Oubal, K. (2022). The determinants of dividend policy: The case of the Casablanca Stock Exchange. *Journal of Risk and Financial Management*, 15(12), 548. <https://doi.org/10.3390/jrfm15120548>
- Musa, H., Rech, F., & Musová, Z. (2019). The role of corporate governance in debt and dividend policies: Case of Slovakia. *Investment Management and Financial Innovations*, 16(2), 206–217. [https://doi.org/10.21511/imfi.16\(2\).2019.18](https://doi.org/10.21511/imfi.16(2).2019.18)
- Ning, Y., Davidson III, W. N., & Wang, J. (2010). Does optimal corporate board size exist? An empirical analysis. *Journal of Applied Finance*, 20(2), 57–69. <https://www.proquest.com/scholarly-journals/does-optimal-corporate-board-size-exist-empirical/docview/894768961/se-2>
- Rodrigues, R., Felício, J. A., & Matos, P. V. (2020). Corporate governance and dividend policy in the presence of controlling shareholders. *Journal of Risk and Financial Management*, 13, 162. <https://doi.org/10.3390/jrfm13080162>
- Saliya, A. Y., & Dogukanli, H. (2022). The board structure and dividend payout policy:

- Empirical evidence from BIST 100, Turkey. *Asian Journal of Economic Modelling*, 10(1), 43–60. <https://doi.org/10.55493/5009.v10i1.4459>
- Sawitri, N. N., & Arifin, A. Z. (2022). Market reaction to the announcement of paying and not paying the dividend. *Neuroquantology*, 20(15), 1423–1441. <https://doi.org/10.14704/NQ.2022.20.15.NQ88129>
- Surbakti, E. Y. S., Hernadi, K. C., Sudibyjo, M. H., & Hadiano, B. (2019). The effect of leverage and profitability on the firm decision to pay dividends. *Asian Journal of Management Sciences & Education*, 8(4), 126–134. [http://www.ajmse.leena-luna.co.jp/AJMSEPDFs/Vol.8\(4\)/AJMSE2019\(8.4-13\).pdf](http://www.ajmse.leena-luna.co.jp/AJMSEPDFs/Vol.8(4)/AJMSE2019(8.4-13).pdf)
- Widodo, F. P. T., Praptapa, A., Suparlinah, I., & Setyorini, C. T. (2021). The effect of company size, institutional ownership, profitability, and leverage on dividends payout ratio. *Journal of Contemporary Accounting*, 3(2), 77–87. <https://doi.org/10.20885/jca.vol3.iss2.art3>
- Yuliana, I., Indiyanto, A., Yusuf, M., & Prajawati, M. I. (2021). Dividends as a moderation variable to increase stock prices. *Jurnal Keuangan & Perbankan*, 25(4), 880–894. <https://doi.org/10.26905/jkdp.v25i4.5842>
- Zahid, R. M. A., Taran, A., Khan, M. K., & Chersan, I. C. (2023). ESG, dividend payout policy and the moderating role of audit quality: Empirical evidence from Western Europe. *Borsa Istanbul Review*, 23(2), 350–367. <https://doi.org/10.1016/j.bir.2022.10.012>