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The Effect of Free Cash Flow, Leverage, Profitability, Liquidity, and Growth Opportunities on Dividend Policy in the Indonesian Telecommunications Sector: The Role of Intervening Cash Holdings

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ABSTRACT ;
The telecommunications industry is capital-intensive, so the dividend policy must balance the interests of shareholders and internal financing. In this context, company cash plays a role in maintaining financial flexibility. This study analyzes the influence of free cash flow, leverage, profitability, and growth opportunities on dividend policy, either directly or through cash holdings as mediation. A quantitative approach with panel data regression was used on three telecommunications companies on the IDX (PT Telkom, PT Indosat, PT XL Axiata) for the 2013–2024 period. The appropriate estimation model is determined through Chow, Hausman, and Lagrange Multiplier tests. The results indicate that, simultaneously, free cash flow, leverage, profitability, and growth opportunities have an effect on cash holdings. However, partially, only profitability has a significant effect on cash holdings, while free cash flow, leverage, and growth opportunities do not show a significant influence. Furthermore, cash holdings do not have a significant effect on dividend policy, either partially or simultaneously. In addition, free cash flow, leverage, profitability, and growth opportunities also do not exhibit a significant impact on dividend policy, suggesting that dividend distribution decisions are not directly determined by these variables. Finally, cash holdings are not able to mediate the relationship between free cash flow, leverage, profitability, and growth opportunities and dividend policy. These findings indicate the need for other factors to support sustainable dividend policies in line with SDGs 8 and SDG 9..

Keywords: Free Cash Flow; Leverage; Profitability; Dividend Policy; Telecommunication Sector; SDGs.

INTRODUCTION

Dividend policy is a strategic corporate decision in determining the proportion of earnings distributed to shareholders and retained for investment. This policy reflects a balance between shareholder interests, long-term investment needs, and financial stability (Bhattacharya, 1979). (Faldesiani et al., 2024) argue that dividend policy also serves as a signal for investors to assess a firm's financial condition, stability, and its relationship with shareholders.

From a sustainable economic perspective, dividend policy is not merely a profit distribution mechanism but also reflects a company's commitment to sustainable development, in line with the Sustainable Development Goals (SDGs), particularly SDG 8 and SDG 9 (United Nations, 2023). Financial inclusion plays a crucial role in supporting equitable economic growth (Widyastuti et al., 2024). According to (Lintner, 1956), dividend policy is influenced by profitability, earnings stability, and financing needs, while Baker and Powell (2012) emphasize its role as a signal of management's confidence in future prospects. This aligns with signaling theory, which suggests that investment decisions provide positive signals regarding firm value (Sahroni et al., 2020).

In the Indonesian telecommunications sector, dividend policy has become increasingly important due to the rising demand for digital infrastructure. With 215 million internet users, representing 79% of the population (Kominfo, 2023), firms face a trade-off between financing expansion and maintaining attractive dividend policies (Twimbit, 2023). PT Telkom Indonesia Tbk and PT XL Axiata Tbk tend to maintain high payout ratios, while PT Indosat Ooredoo Hutchison Tbk adopts a more progressive approach by retaining part of its earnings for strategic investments (Telkom Indonesia, 2023; XL Axiata, 2023; IOH, 2023).

Theoretically, dividend policy can be explained through agency theory, signaling theory, and pecking order theory. Agency theory highlights dividends as a mechanism to mitigate conflicts between managers and shareholders (Jensen & Meckling, 1976; Jensen, 1986); signaling theory views dividends as indicators of firm performance (Bhattacharya, 1979); and pecking order theory explains firms' preference for internal financing over external funding (Myers & Majluf, 1984).

However, prior empirical findings remain inconsistent. Free cash flow can positively affect dividend policy (Li & Nguyen, 2025), yet it may also lead to cash hoarding under uncertainty (Ananzeh et al., 2024; Nurwanto, 2022). Leverage tends to reduce dividend payments due to debt obligations (Khan et al., 2022; Maxentia et al., 2022). Profitability enhances firms' ability to distribute dividends (Ferdiansah et al., 2024), whereas growth opportunities negatively affect dividend policy as firms prioritize investment (Moin et al., 2019; Sumartana & Dewi, 2024; Junaidi et al., 2024).

This research introduces novelty by incorporating cash holdings as an intervening variable in the relationship between free cash flow and dividend policy. This approach aims to explain the managerial mechanism in allocating internal funds between retention and distribution. Furthermore, optimal cash management is essential for enhancing financial resilience and supporting sustainable corporate performance in line with the SDGs. Therefore, this study is expected to contribute both theoretically and practically to sustainable dividend policy management in the Indonesian telecommunications sector.

METHOD

Variable operationalization is a crucial stage in quantitative research to translate theoretical concepts into measurable forms. This study is based on agency theory, signaling theory, pecking order theory, and the life cycle theory of dividends, using a quantitative approach with secondary data from the annual financial statements of PT Telkom Indonesia (Persero) Tbk, PT Indosat Tbk, and PT XL Axiata Tbk.

The independent variables include free cash flow, leverage, profitability, and growth opportunities, while dividend policy serves as the dependent variable. Cash holdings act as a mediating variable, and ownership concentration as a moderating variable. All variables are measured using commonly applied financial ratios relevant to Sustainable Development Goals (SDG 8) and (SDG 9).

Free cash flow (FCF) is measured as operating cash flow minus capital expenditure divided by total assets. Leverage (LEV) is proxied by total debt to total assets, profitability (ROA) by net income to total assets, and growth opportunities (GROWTH) by changes in total assets relative to the prior period. Cash holdings (CASH) are measured by cash and cash

equivalents to total assets, while dividend policy (DIV) is proxied by the dividend payout ratio (DPS/EPS) and dividend yield (DPS/MPS).

This study uses a quantitative approach with panel data regression, combining time series and cross-sectional data to capture both firm-level variation and time dynamics (Gujarati & Porter, 2012; Baltagi, 2021). The estimation models include the common effect model (CEM), fixed effect model (FEM), and random effect model (REM), with model selection conducted using the Chow, Hausman, and, if necessary, Lagrange multiplier (LM) tests.

To examine the relationships among variables, this study applies panel multiple regression analysis to test direct effects, as well as mediation and moderation analysis. The mediation effect of cash holdings is tested using the (Baron & Kenny,1986) approach, while moderation is examined through interaction terms.

To ensure the robustness of the model, classical assumption tests are conducted, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests. Normality is assessed using the Kolmogorov–Smirnov test, multicollinearity using the variance inflation factor (VIF), heteroskedasticity using Spearman correlation, and autocorrelation using the Durbin–Watson test. The analysis is performed using statistical software such as EViews 12 or Stata 17.

Hypothesis testing is conducted at a 5% significance level (α=0.05). The hypotheses examine both direct and indirect relationships, including the effects of free cash flow, leverage, profitability, and growth opportunities on cash holdings and dividend policy, as well as the mediating role of cash holdings in the relationship between free cash flow and dividend policy.

RESULTS AND DISCUSSION

The following presents the results of the classical assumption tests conducted in this study to ensure that the regression model meets the required statistical assumptions, thereby making the analysis results reliable.

1. Normality Test

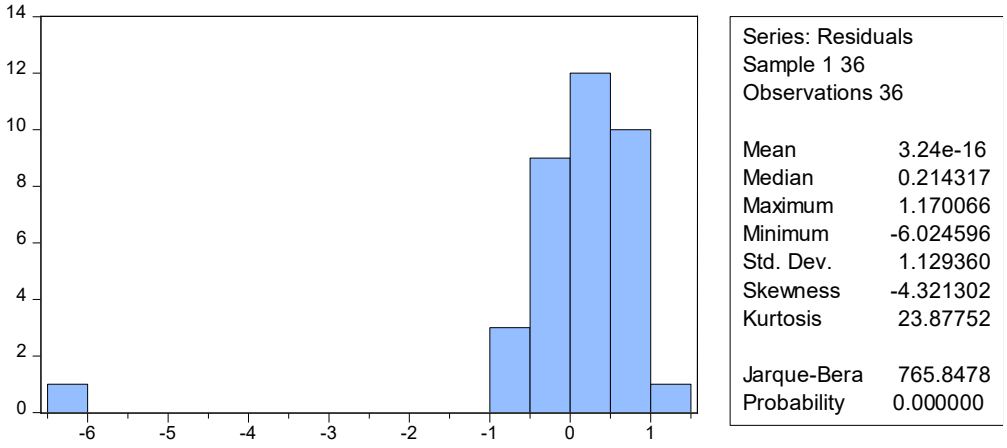

Figure 1. Normality Test

Source: Processed data (2026)

Based on the Kolmogorov–Smirnov normality test, the probability value is below the 0.05 significance level, indicating that the data are not normally distributed. However, with a

sufficiently large sample size, this violation can be tolerated, as the regression estimates remain consistent.

2. Multicollinearity Test

Table 1. Multicollinearity Test

Variance Inflation Factors			
Date: 03/11/26 Time: 12:33			
Sample: 1 36			
Included observations: 36			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	0.786168	19.01981	NA
FREE_CASH_FLOW	0.055311	6.641925	2.420434
LEVERAGE	0.141876	18.66969	4.130519
PROFITABILITAS	77.42037	12.85506	8.135804
GROWTH_OPPORTUNITIES	0.160188	21.45148	2.892594
CASH_HOLDINGS	62.51628	10.12382	2.780664

Source: Processed data (2026)

All independent variables have centered VIF values below 10 (FCF 2.42, LEV 4.13, ROA 8.14, GROWTH 2.89, CASH 2.78), indicating no multicollinearity. Thus, the model meets the assumption and is suitable for further analysis.

3. Heteroscedasticity Test

Table 2. Heteroscedasticity Test

Heteroskedasticity Test: Glejser				
F-statistic	2.049650	Prob. F(5,30)		0.0999
Obs*R-squared	9.166534	Prob. Chi-Square(5)		0.1026
Scaled explained SS	15.36152	Prob. Chi-Square(5)		0.0089
Test Equation:				
Dependent Variable: ARESID				
Method: Least Squares				
Date: 03/11/26 Time: 12:36				
Sample: 1 36				
Included observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.652346	0.654381	-0.996891	0.3268
FREE_CASH_FLOW	0.304575	0.173572	1.754748	0.0895
LEVERAGE	0.702347	0.277989	2.526527	0.0170
PROFITABILITAS	6.504123	6.493824	1.001586	0.3246
GROWTH_OPPORTUNITIES	0.120043	0.295384	0.406395	0.6873
CASH_HOLDINGS	-3.782334	5.835385	-0.648172	0.5218
R-squared	0.254626	Mean dependent var		0.577816
Adjusted R-squared	0.130397	S.D. dependent var		0.965425
S.E. of regression	0.900283	Akaike info criterion		2.778796
Sum squared resid	24.31526	Schwarz criterion		3.042716
Log likelihood	-44.01832	Hannan-Quinn criter.		2.870911
F-statistic	2.049650	Durbin-Watson stat		2.324697
Prob(F-statistic)	0.099942			

Source: Processed data (2026)

Based on the Glejser test, the Obs*R-squared probability is 0.1026, which exceeds 0.05, indicating no heteroskedasticity. Residuals are therefore homoscedastic. Combined with VIF values below 10, the model meets classical assumptions and is suitable for further analysis.

4. Autocorrelation Test

Table 3. AutocorrelationTest

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.651816	Prob. F(2,28)		0.5288
Obs*R-squared	1.601534	Prob. Chi-Square (2)		0.4490
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 03/11/26 Time: 12:39				
Sample: 1 36				
Included observations: 36				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.872448	1.179922	0.739412	0.4658
FREE_CASH_FLOW	0.453699	0.477161	0.950830	0.3498
LEVERAGE	0.183193	0.425443	0.430594	0.6701
PROFITABILITAS	5.930034	10.70435	0.553984	0.5840
GROWTH_OPPORTUNITIES	-0.275972	0.471699	-0.585060	0.5632
CASH_HOLDINGS	-2.092747	8.655113	-0.241793	0.8107
RESID(-1)	-0.512750	0.450555	-1.138042	0.2647
RESID(-2)	-0.136124	0.243138	-0.559863	0.5800
R-squared	0.044487	Mean dependent var		3.24E-16
Adjusted R-squared	-0.194391	S.D. dependent var		1.129360
S.E. of regression	1.234258	Akaike info criterion		3.451947
Sum squared resid	42.65498	Schwarz criterion		3.803840
Log likelihood	-54.13504	Hannan-Quinn criter.		3.574767
F-statistic	0.186233	Durbin-Watson stat		1.958156
Prob(F-statistic)	0.986034			

Source: Processed data (2026)

Based on the Breusch–Godfrey LM test, the Prob. Chi-Square value is 0.4490 (> 0.05), and the Durbin–Watson statistic is 1.958156 (within 1.5–2.5), indicating no autocorrelation. Thus, the model satisfies the autocorrelation assumption and is suitable for further analysis.

5. Chow Test

Table 4. Chow Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.400719	(2,28)	0.2632
Cross-section Chi-square	3.432848	2	0.1797
Cross-section fixed effects test equation:			
Dependent Variable: KD			
Method: Panel Least Squares			
Date: 03/11/26 Time: 12:44			
Sample: 2013 2024			
Periods included: 12			
Cross-sections included: 3			

Total panel (balanced) observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.020240	0.882402	1.156208	0.2567
FCF	-0.420273	0.233629	-1.798889	0.0821
LEV	-0.613247	0.369607	-1.659188	0.1075
PROF	-2.222166	8.594563	-0.258555	0.7977
GO	-0.271950	0.404023	-0.673105	0.5060
CH	4.605329	7.746712	0.594488	0.5566
R-squared	0.222006	Mean dependent var		0.120278
Adjusted R-squared	0.092340	S.D. dependent var		1.281462
S.E. of regression	1.220864	Akaike info criterion		3.388007
Sum squared resid	44.71529	Schwarz criterion		3.651927
Log likelihood	-54.98412	Hannan-Quinn criter.		3.480122
F-statistic	1.712141	Durbin-Watson stat		2.272269
Prob(F-statistic)	0.162243			

Source: Processed data (2026)

The Chow test is used to determine the appropriate panel data model between the common effect model (CEM) and fixed effect model (FEM) by examining the probability values of cross-section F and Chi-square. If the probability exceeds 0.05, CEM is preferred.

The results show cross-section F (0.2632) and Chi-square (0.1797) probabilities both above 0.05, indicating that CEM is more appropriate than FEM. The Hausman and Lagrange multiplier (LM) tests could not be conducted due to the limited sample size relative to the number of independent variables. Therefore, the common effect model (CEM) is selected as the appropriate model for this study.

6. H1: The influence of free cash flow, leverage, profitability and growth opportunities on cash holdings

Table 5. Panel Data Regression 1

Dependent Variable: CH				
Method: Panel Least Squares				
Date: 03/11/26 Time: 12:57				
Sample: 2013 2024				
Periods included: 12				
Cross-sections included: 3				
Total panel (balanced) observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.028647	0.019801	1.446777	0.1580
FCF	0.006965	0.005270	1.321505	0.1960
LEV	0.002965	0.008553	0.346670	0.7312
PROF	0.434612	0.183337	2.370566	0.0242
GO	0.011779	0.009125	1.290810	0.2063
R-squared	0.619064	Mean dependent var		0.070000
Adjusted R-squared	0.569911	S.D. dependent var		0.043161
S.E. of regression	0.028305	Akaike info criterion		-4.163283
Sum squared resid	0.024837	Schwarz criterion		-3.943350
Log likelihood	79.93909	Hannan-Quinn criter.		-4.086520
F-statistic	12.59461	Durbin-Watson stat		1.608497
Prob(F-statistic)	0.000003			

Source: Processed data (2026)

Based on the panel data regression results, the F-statistic probability (0.000003 < 0.05) indicates that FCF, LEV, PROF, and GO jointly have a significant effect on CH. Thus, H1 is accepted.

This finding implies that cash holding decisions are influenced by the interaction of multiple internal financial factors. Although only profitability is individually significant, all variables jointly contribute to the model, consistent with trade-off and pecking order theories (Myers & Majluf, 1984).

This result is supported by prior studies showing that growth opportunities significantly affect cash holdings, while other variables may not be individually significant (Maxentia et al., 2022). Additionally, Lisa and Zuraida (2023) highlight the importance of internal financial factors, such as free cash flow, in corporate financial decisions. Overall, cash holding decisions reflect a comprehensive consideration of firms' financial conditions.

7. H2: The effect of cash holdings on dividend policy

Table 6. Panel Data Regression 2

Dependent Variable: KD				
Method: Panel Least Squares				
Date: 03/11/26 Time: 13:00				
Sample: 2013 2024				
Periods included: 12				
Cross-sections included: 3				
Total panel (balanced) observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.359523	0.405864	-0.885820	0.3819
CH	6.854294	4.954316	1.383500	0.1755
R-squared	0.053296	Mean dependent var		0.120278
Adjusted R-squared	0.025452	S.D. dependent var		1.281462
S.E. of regression	1.265050	Akaike info criterion		3.362052
Sum squared resid	54.41191	Schwarz criterion		3.450026
Log likelihood	-58.51694	Hannan-Quinn criter.		3.392757
F-statistic	1.914071	Durbin-Watson stat		2.298744
Prob(F-statistic)	0.175529			

Source: Processed data (2026)

Based on the regression results, cash holdings (CH) has a probability value of 0.1755 (> 0.05), indicating no significant partial effect on dividend policy. The F-test also shows a Prob (F-statistic) of 0.175529 (> 0.05), meaning the model is not significant overall. Thus, H2 is rejected.

Theoretically, higher cash holdings are expected to increase dividend payments; however, this study finds otherwise. Firms do not necessarily use cash levels as the main determinant of dividend policy, as they may prefer to retain cash for investment, liquidity, and precautionary purposes.

The low R-squared (0.0533) indicates that cash holdings explain only 5.33% of dividend policy variation, with the rest influenced by other factors such as profitability, ownership structure, and macroeconomic conditions.

These findings are consistent with prior studies emphasizing the role of business strategy in financial decisions (Houqe et al., 2023) and showing that cash holdings do not significantly affect firm outcomes compared to other factors (Putra et al., 2023). Overall, dividend policy is

influenced by multiple factors, and its relationship with cash holdings is complex and not always linear.

8. H3: The influence of free cash flow, leverage, profitability and growth opportunities on dividend policy

Table 7. Panel Data Regression 3

Dependent Variable: KD				
Method: Panel Least Squares				
Date: 03/11/26 Time: 13:03				
Sample: 2013 2024				
Periods included: 12				
Cross-sections included: 3				
Total panel (balanced) observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.152169	0.845086	1.363375	0.1826
FCF	-0.388199	0.224931	-1.725856	0.0943
LEV	-0.599592	0.365025	-1.642606	0.1106
PROF	-0.220635	7.824757	-0.028197	0.9777
GO	-0.217704	0.389458	-0.558994	0.5802
R-squared	0.212841	Mean dependent var		0.120278
Adjusted R-squared	0.111272	S.D. dependent var		1.281462
S.E. of regression	1.208065	Akaike info criterion		3.344163
Sum squared resid	45.24206	Schwarz criterion		3.564096
Log likelihood	-55.19493	Hannan-Quinn criter.		3.420926
F-statistic	2.095529	Durbin-Watson stat		2.337518
Prob(F-statistic)	0.105279			

Source: Processed data (2026)

The panel data regression results show that free cash flow (FCF), leverage (LEV), profitability (PROF), and growth opportunities (GO) each have probability values above 0.05, indicating no significant partial effect on dividend policy. The F-test also yields a Prob (F-statistic) of 0.105279 (> 0.05), meaning the model is not significant overall. Thus, H3 is rejected.

Conceptually, although these variables are commonly linked to dividend policy, the findings suggest they are not the main determinants in practice. Firms may maintain stable dividend policies (dividend smoothing), prioritizing long-term considerations over short-term financial conditions.

The R-squared value (0.2128) indicates that only 21.28% of dividend policy variation is explained by the model, with the rest influenced by other factors such as ownership structure, managerial policy, and macroeconomic conditions.

These results are supported by prior studies highlighting the role of financial and strategic considerations in dividend decisions (Sumartana & Dewi, 2024) and the varying impact of leverage and profitability across different financial environments (Akpadaka et al., 2024). Overall, dividend policy is influenced by broader and more complex factors beyond the variables examined.

9. H4: The influence of cash holdings mediates the relationship between free cash flow, leverage, profitability and growth opportunities and dividend policy

Table 8. Panel Data Regression 4

Dependent Variable: KD				
Method: Panel Least Squares				
Date: 03/11/26 Time: 13:08				
Sample: 2013 2024				
Periods included: 12				
Cross-sections included: 3				
Total panel (balanced) observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.020240	0.882402	1.156208	0.2567
FCF	-0.420273	0.233629	-1.798889	0.0821
LEV	-0.613247	0.369607	-1.659188	0.1075
PROF	-2.222166	8.594563	-0.258555	0.7977
GO	-0.271950	0.404023	-0.673105	0.5060
CH	4.605329	7.746712	0.594488	0.5566
R-squared	0.222006	Mean dependent var		0.120278
Adjusted R-squared	0.092340	S.D. dependent var		1.281462
S.E. of regression	1.220864	Akaike info criterion		3.388007
Sum squared resid	44.71529	Schwarz criterion		3.651927
Log likelihood	-54.98412	Hannan-Quinn criter.		3.480122
F-statistic	1.712141	Durbin-Watson stat		2.272269
Prob(F-statistic)	0.162243			

Source: Processed data (2026)

The results show that all independent variables—free cash flow (FCF), leverage (LEV), profitability (PROF), growth opportunities (GO)—as well as the mediating variable cash holdings (CH), have probability values above 0.05, indicating no significant partial effects on dividend policy. The F-test also yields a Prob (F-statistic) of 0.162243 (> 0.05), meaning the model is not significant overall. Thus, H4 is rejected.

The insignificance of cash holdings, both individually and within the model, indicates that it does not mediate the relationship between FCF, LEV, PROF, and GO on dividend policy. Although theoretically cash holdings act as a transmission mechanism, this study finds no such mediating effect.

The R-squared value (0.2220) shows that the model explains only 22.20% of the variation, with the rest influenced by other factors. Overall, dividend policy is not driven by the variables in this model, and cash holdings do not function as an intervening variable.

CONCLUSION

This research examines the influence of free cash flow, leverage, profitability, and growth opportunities on cash holdings and its implications for dividend policy in the Indonesian telecommunications sector, including the mediating role of cash holdings. The results of the analysis show that the four variables simultaneously affect cash holdings, but only profitability has a significant partial effect, while free cash flow, leverage, and growth opportunities are not significant. Furthermore, cash holdings has no significant effect on dividend policy, either partially or simultaneously. Similarly, free cash flow, leverage, profitability, and growth opportunities also do not show a significant direct influence on dividend policy. Moreover, cash holdings is unable to mediate the relationship between the four independent variables and

dividend policy. Overall, these findings confirm that profitability plays an important role in determining cash holdings, but the variables studied do not affect dividend policy directly or indirectly through the cash holdings mediation mechanism; thus, further research is needed to explore other determinant factors.

REFERENCES

Akpadaka, O. S., Farouk, M. A., Dang, D. Y., & Fodio, M. I. (2024). Does Profitability Moderate the Relationship Between the Leverage and Dividend Policy of Manufacturing Firms in Nigeria and South Africa? *Journal of Risk and Financial Management*, *17*(12), 563.

Ananzeh, H., Alshammari, H., & Haider, Z. (2024). ESG performance, cash holdings, and dividend policy: Evidence from emerging markets. *Cogent Economics & Finance*, 12(1), 233–247. https://doi.org/10.1080/23322039.2024.2312067

Baker, H. K., & Powell, G. E. (2012). *Dividend Policy in Practice*. Hoboken, NJ: John Wiley & Sons.

Baltagi, B. H. (2021). Econometric Analysis of Panel Data (6th ed.). Springer.

Baron, R. M., & Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bhattacharya, S. (1979). Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *The Bell Journal of Economics*, 10(1), 259–270. https://doi.org/10.2307/3003330

Faldesiani, R., Ciptagustia, A., Purnomo, B., S., Purnamasari, I., & … Firmansyah, E., A. (2024). 25 Years of Dividend Policy Research in Indonesia (1998– 2023): A Bibliometric Perspective. Image : *Jurnal Riset Manajemen*, 12(2), 344-357. E-ISSN: 2657-0688, P-ISSN: 2339-2878

Ferdiansah, R., Suryani, T., & Rahmawati, D. (2024). Profitability, Leverage, and Liquidity on Dividend Policy: Evidence from Indonesian Listed Firms. *Jurnal Keuangan dan Bisnis*, 26(1), 45–59.

Gujarati, D. N., & Porter, D. C. (2012). Basic Econometrics (5th ed.). McGraw-Hill Education.

Houqe, M., N., Monem, R., M., & Zijl, T., V. (2023). Business strategy, cash holdings, and dividend payouts. *Accounting & Finance*, 63, 3999–4035. DOI: 10.1111/acfi.13082

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review*, 76(2), 323–329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Junaidi, J., Soewarno, N., & Isnalita, I. (2024). The impact of the investment opportunity set on dividends: An effect of sustainable growth rate. *Jurnal Reviu Akuntansi dan Keuangan*.

Kementerian Komunikasi dan Informatika Republik Indonesia. (2023). Laporan Kinerja Kementerian Komunikasi dan Informatika Tahun 2023. Kominfo. *Retrieved from* https://eppid.komdigi.go.id/attachments/5fe1b215a1affc7f5f1f58ede92fc67967b5a6fb

ffc88bda86536f3d28f80fb4/1_3_laporan-kinerja-lkj-kementerian-komunikasi-dan-informatika-tahun-2023.pdf

Khan, M., A., Haddad, H., Odeh, M., Haider, A., & Khan, M., A. (2022). Institutions, Culture, or Interaction: What Determines the Financial Market Development in Emerging Markets?. *Sustainability*, 14. 15883. https://doi.org/10.3390/su142315883

Li, Y., & Nguyen, T. (2025). Free Cash Flow and Dividend Payout Decisions: Evidence from ASEAN Emerging Markets. *Asian Journal of Business and Accounting*, 18(1), 23–42.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *American Economic Review*, 46(2), 97–113.

Lisa, H., & Zuraida. (2023). Dividend Payout Ratio, Free Cash Flow, And Share Repurchases In Indonesian Listed Companies, *Jurnal Akuntansi dan Bisnis*, 23(1), 139-156.

Maxentia, J., Tarigan, M., U., & Verawati. (2022). Pengaruh Leverage, Profitability, Growth Opportunity dan Liquidity Terhadap Cash Holding. *Jurnal Ekonomi*, 27(03), 338–357. https://doi.org/10.24912/je.v27i03.880

Moin, A., Guney, Y., Kalak, I., E. (2020). The effects of ownership structure, sub-optimal cash holdings and investment inefficiency on dividend policy: evidence from Indonesia. *Review of Quantitative Finance and Accounting*, 55:857-900. https://doi.org/10.1007/s11156-019-00862-z

Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have. *Journal of Financial Economics*, 13(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Nurwanto., A. (2022). Pengaruh Leverage, Free Cash Flow, Profitabilitas Dan Likuiditas Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Intervening (Studi Pada Sektor Manufaktur Yang Terdaftar Di Bei Tahun 2014-2018). *Jurnal ManajemenTerapan dan Keuangan (Mankeu)*. 11(2), 488-499. P-ISSN: 2252-8636, E-ISSN: 2685-9424

PT Indosat Ooredoo Hutchison Tbk. (2023). *Annual report* 2023. *Retrieved from* https://www.ioh.co.id

PT Telkom Indonesia (Persero) Tbk. (2023). *Annual report* 2023. *Retrieved from* https://www.telkom.co.id/sites/about-telkom/id_ID/page/annual-report

PT XL Axiata Tbk. (2023). *Sustainability report* 2023. *Retrieved from* https://www.xlaxiata.co.id/en/investor-relations/sustainability-report

Putra, H., N., Salim, U., & Aisjah, S. (2023). Effect Of Debt, Firm Size, And Dividend Policy On Firm Value Mediated By Cash Holdings. *Jurnal Aplikasi Manajemen*, 12(4), 1061-1073. DOI: http://dx.doi.org/10.21776/ub.jam.2023.021.04.15.

Sahroni, Dinantara, M., D., & Zulfitra. (2020). Pengaruh Keputusan Investasi dan Kebijakan Dividen Terhadap Nilai Perusahaan Sektor Properti. *Jurnal Ilmiah Wahana Pendidikan*, 6(1), 163-196. DOI: 10.5281/zenodo.4295775

Sumartana, I., G., A., & Dewi, S., K., S. (2024). The Influence Of Free Cash Flow, Profitability and Growth Opportunity On Dividend Policy. *International Journal of Management Research and Economics*, 2(3), 486-508. DOI: https://doi.org/10.54066/ijmre-itb.v2i3.2152

Twimbit. (2023). Indonesia *telecoms update* 2023. Twimbit. *Retrieved from* https://cdn.twimbit.com/uploads/2023/08/18165559/Indonesia-Telecoms-Update-2023-2.pdf

United Nations. (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. *United Nations*. https://sdgs.un.org/2030agenda

Widyastuti, U., Respati, D., K., Dewi, V., I., & Soma, A., M. (2024). The nexus of digital financial inclusion, digital financial literacy and demographic factors: lesson from Indonesia. *Cogent Business & Management, Taylor & Francis Journals*, vol. 11(1), pages 2322778-232, December.