Open Access | Original Research
International Journal of Social Sciences and Economic Review, 5(1), 2023 | PP: 20– 29
https://doi.org/10.36923/ijsser.V5i1.183

The Role of Collateralizable Asset, Profitability and Operating Cash Flow on Dividend Policy: A Study on ASEAN Non-Financial Companies

Arie Akbar[1], Moch Doddy Ariefianto[2]

Article History:

Received: 31-01-2023
Accepted: 10-03-2023
Publication: 30-03-2023

Cite this article as:

Akbar, A. & Ariefianto, D. (2023). Role of Collateralizable Asset, Profitability and Operating Cash Flow on Dividend Policy: A Study on ASEAN Non-Financial Companies. *International Journal of Social Sciences and Economic Review*, 5(1), 20-29. doi.org/10.36923/ijsser.v5i1.183

Corresponding Author(s):

Arie Akbar
Institute of Water and Flood Management, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh. Email: iqbal.ashik.ce@gmail.com

Abstract: This study aims to investigate the influence of collateralizable assets, profitability, and operating cash flow on dividend policy among non-financial companies in the ASEAN region. Understanding these relationships can provide valuable insights for both investors and corporate management regarding the factors that drive dividend distribution decisions. The study utilizes a panel data set of ASEAN non-financial companies obtained from the OSIRIS database, which compiles data from various stock exchanges in the region. The analysis was conducted using statistical methods to evaluate the impact of the selected variables on dividend policy, with profitability measured by return on assets (ROA) and operating cash flow considered as key indicators. The results reveal that profitability and operating cash flow significantly influence dividend policy. Profitability, as indicated by ROA, has a positive effect on dividend policy, suggesting that companies with higher profitability are more likely to distribute dividends. Conversely, operating cash flow was found to have a significant negative impact on dividend policy. Interestingly, collateralizable assets were found to have no significant effect on dividend policy. The study concludes that profitability is a critical factor in determining dividend policy, while operating cash flow also plays a significant role, albeit negatively. Collateralizable assets do not appear to influence dividend decisions. These findings highlight the importance of maintaining strong profitability to support favourable dividend policies. The implications of this study suggest that corporate management should focus on enhancing profitability to sustain or increase dividend payments. Additionally, companies should be mindful of how operating cash flow is managed, as its negative impact on dividend policy could influence investor perceptions and decisions. Future research could further explore these relationships by including more recent data and examining additional variables that may affect dividend policy.

Keywords: Collateralizable asset, Profitability, Cash Flow Operating, Dividend policy

1. Introduction

In the current era of globalization, economic competition in the world market has intensified, often transcending national borders. As a result, consumers face a wide array of choices when engaging with market offerings (Kudeshia & Kumar, 2017). Moreover, the ASEAN region, particularly its more developed countries, has emerged as a highly competitive economic hub (Wong & Chan, 2003). ASEAN serves as a vital economic engine for Southeast Asian nations and is expected to contribute significantly to global economic growth (ASEAN Secretariat, 2021). A key initiative in this regard is the ASEAN Free Trade Area (AFTA), which has been operational since January 1, 2003, aiming to reduce tariffs gradually and facilitate freer trade among member countries.

ASEAN countries have become attractive destinations for investors, as many of them are classified as emerging markets, experiencing rapid economic growth (Salim et al., 2019). These nations share distinctive characteristics, such as a youthful population and a growing middle class (Hughes & Woldekidan, 1994). According to the United Nations Conference on Trade and Development (UNCTAD), ASEAN is considered a host region for foreign direct investment (ASEAN Secretariat, 2021). Given this scenario, countries within ASEAN are competing to create favourable conditions for investors, making it crucial for companies in the region to demonstrate strong performance. One indicator of such performance is a company's ability to pay dividends to its shareholders, which reflects both its financial health and its success in meeting investor expectations (Sukmawardini & Ardiansari, 2018).

Dividend policy is thus a critical area of study, as it reflects a company's decisions regarding the distribution of profits and capital (Murtaza et al., 2018). This policy is influenced by various economic factors and plays a significant role in investment decisions (Jabbouri, 2016). Dividend policy remains a complex issue, as it affects investor attraction; potential investors are often drawn to companies with a consistent record of dividend payments. Therefore, understanding the factors influencing dividend policy is essential for meeting investor expectations.

However, companies in ASEAN face challenges with dividend consistency. For

[1] School of Accounting, Master Accounting Bina Nusantara University, Jakarta, Indonesia. Email: arie.akbar@binus.ac.id
[2] School of Accounting, Master Accounting Bina Nusantara University, Jakarta, Indonesia. Email: arie.akbar@binus.ac.id

example, companies such as PT Astra International TBK from Indonesia, XL Axiata Group Berhad from Malaysia, Wilmar International Limited from Singapore, and Siam Cement PCL from Thailand have exhibited fluctuations in their dividend payments from 2014 to 2019. These inconsistencies highlight the difficulty these companies face in balancing profit retention for business development with dividend payouts to shareholders (Ross et al., 2015).

The integration of capital markets within ASEAN could potentially reduce information asymmetry (Aney et al., 2016). However, improper integration of policies can create challenges for companies, leading to confusion about whether to retain profits for future investments or distribute them as dividends. Thus, dividend policy continues to evolve as a significant issue, both locally and globally. The decision on whether to distribute annual profits as dividends or retain them as earnings for future investments often pits shareholders' interests against those of the company.

In Indonesia, non-financial companies have been noted for their ability to pay consistent dividends (Jannah et al., 2019). Several factors can influence a company's dividend-paying ability. For instance, collateral assets have been shown to impact dividend policy (Wijaya & Yamasitha, 2020; Granda Carvajal, 2015; Henrekson & Stenkula, 2017). However, some studies suggest that collateral assets do not significantly affect dividend policy (Wahjudi, 2020). Additionally, a company's profitability and operating cash flow are closely linked to its ability to pay dividends (Dewasiri et al., 2019). Tijjani & Sani (2016) argue that improving operating cash flow is essential for enhancing dividend-paying capacity.

This study focuses on the roles of collateralizable assets, profitability, and operating cash flow in shaping dividend policy. We are particularly interested in collateral assets, as these are critical in signaling a company's asset value, which may influence management's confidence in paying dividends. Profitability is another crucial factor, as companies with positive retained earnings are more likely to distribute dividends. Lastly, operating cash flow provides insights into the quality of a company's earnings, as it reflects the entirety of a company's business activities.

To explore these factors, this study employs several regression analyses using the Dynamic Panel Data (DPD) approach, specifically the System GMM (Blundell & Bond, 1998). This econometric method is chosen for its flexibility and minimal assumption requirements, which are particularly valuable in financial economics. The Sys-GMM approach also allows for a more detailed estimation of data, even when confidence parameters are not well-defined.

2. Literature Review

Several theories have been developed to explain why companies pay dividends. One such explanation is the signal theory, which proposes that companies pay dividends to signal favourable information to capital markets (Nguyen & Bui, 2019). According to Ross et al. (2015), signal theory describes a signal as an action performed by senior management. This signal is presented as information about what management has done to meet the principal's expectations, which may be reflected in the company's financial statements as a form of accountability from the agent to the principal.

When a company experiences a decline in earnings, this indirectly influences the determination of the dividend policy. Failure to adopt an appropriate dividend policy may reflect poorly on the company's management, sending a negative signal to investors that performance will decline and that the company may not generate profits for them.

According to Murtaza et al. (2018), a dividend policy is a strategy that organizations use to decide how much of their profits to pay out to shareholders. This policy can take various forms, including a managed dividend policy, where the company consistently distributes a portion of its profits (Baker et al., 2019).

A company's dividend policy involves deciding how to use after-tax profits, which are closely correlated with the dividends paid to shareholders. The company must decide whether to use the profits generated as a source of financing or to distribute them to shareholders as dividends. If paid out, the company must carefully determine the percentage to be distributed. Alternatively, companies can use these profits to invest in new projects that are expected to add value to the company. This is supported by Mamduh & Abdul (2016), who states that dividend policy refers to the profit a company generates at the end of the year, which must be either paid out to shareholders as dividends or retained as earnings for future investments.

The dividend policy is typically decided by the board of directors and shareholders. This issue often arises when companies determine their dividend policy because it influences investor assessments and reflects the company's performance. The dividend policy is often reflected in the Dividend Payout Ratio (DPR), which is the percentage of profit paid out in cash (Gitman et al., 2015). This ratio can serve as a reference for understanding a company's approach to dividends.

Some researchers argue that dividend policy is closely related to the amount of collateral assets a company owns, as noted by Henrekson & Stenkula (2017) and Wahjudi (2020). However, these assets can have opposing influences, with collateralizable assets either positively or negatively affecting a company's dividend policy.

Collateralizable assets are the assets a company owns that can be used as collateral for creditors when borrowing (Darmayanti & Mustanda, 2016). These assets are typically fixed assets that can serve as collateral for loans to creditors (Ross et al., 2015). This is important for investors because creditors require this collateral as

security when issuing loans. Since the funds provided by creditors are usually substantial, they need these assets as a safeguard to reduce the risk of default. Therefore, companies with significant collateral assets are often perceived as lower risk by creditors, which in turn could increase their likelihood of paying dividends.

Wahjudi (2020) examined the impact of collateral assets on a company's dividend policy and found that these assets have a negative but insignificant impact on dividends. However, Granda Carvajal (2015) and Henrekson & Stenkula (2017) found that collateralizable assets have a positive and significant impact on a company's dividend policy. Given these differing findings, further investigation is warranted to clarify the impact of collateral assets on dividend policy.

From the explanations and opinions above, it can be concluded that the influence of collateralizable assets on dividend policy lies in the level of trust the company garners. A company with a high level of collateralizable assets may feel more confident in distributing dividends to shareholders, as the substantial asset base can reassure the company about its financial stability, reducing the need to retain profits.

H1: *Collateralizable assets have a positive significant effect on the dividend policy in a company.*

This dividend policy is also closely related to a company's profitability ratio. Profitability is a metric used to measure a company's ability to generate profits. The profitability ratio assesses a company's ability to generate profits (Kasmir, 2017). Profitability can also serve as a basis for comparing various financial components in the statement regarding the company's ability to generate profits.

This ability to generate profits is closely related to a company's equity or dividend policy. The higher the company's profitability, the higher the dividends it will pay, and conversely, if a company's profitability is low, the dividends will also be low. This relationship between profitability and dividend policy is significant. When measuring profitability, one can use return on investment (ROI), a key indicator of the profitability ratio, which evaluates a company's ability to generate profits (Kasmir, 2017).

Profitability is also a crucial factor in determining the dividend policy of companies (Dewasiri et al., 2019). In their research, profitability is identified as the most important determinant in decision-making about dividend policy. High profitability often results in larger dividends, which has a positive impact. However, Tekin & Polat (2021) found that profitability could have a negative effect on a company's dividend policy, where increased profitability might reduce the dividends a company needs to pay. In contrast, this study argues that profitability will have a positive impact on a company's dividend policy, supported by Wahjudi (2020).

The relationship between profitability and dividend policy is closely linked because dividend payments are based on the company's ability to generate profits. These profits enable the company to generate funds that are then distributed to shareholders, which indirectly benefits the company by increasing shareholders' confidence. This, in turn, contributes positively to the company's growth. Therefore, profitability can have a positive influence on a company's dividend policy.

H2: *Profitability has a positive significant effect on the dividend policy in a company.*

Given the previous explanation, profitability can be used as a signal to shareholders when determining a company's dividend policy. An interesting aspect of dividend policy determination is the quality of a company's profits, which can be reflected in its operating cash flow. Operating cash flow reflects the company's ability to manage the inflows and outflows of its business activities, thereby indirectly reflecting the overall business operations.

Suhardianto & Kalanjati (2014) mentioned that operating cash flow is a statement that shows the cash inflows and outflows from operating activities over a period of time. The relationship between operating cash flow and dividend policy has elicited mixed responses from researchers. For example, Supardi (2018) found that operating cash flow negatively affects a company's dividend policy, as high operating cash flow might reduce the dividend payout.

However, Tijjani & Sani (2016) discovered that operating cash flow positively and significantly impacts the dividend policy of oil and gas companies in Nigeria. This suggests that an increase in cash flow from operations can lead to higher dividend payments. Furthermore, cash flow from operating activities is a critical variable in dividend policy since companies that can pay dividends are often those with strong cash flows. This is supported by research from Ifada & Kusumadewi (2014) and Hidayat (2019), who argue that operating cash flow positively affects a company's dividend policy.

From this explanation, it is clear that operating cash flow reflects all the operating activities of a company, and it can influence the dividend policy that the company will adopt. If a company can generate positive operating cash flows, it signals to cash flow managers that the company can easily determine its dividend policy without relying on external financing.

H3: *Cash flow Operating (CFO) has a positive significant effect on the dividend policy in a company.*

3. Methodology

In this study, researchers used data obtained from the OSIRIS database, which processes data from each stock exchange in the countries we studied. The study focuses on three independent variables: collateralizable assets,

profitability, and operating cash flow, with the dependent variable being dividend policy. To address potential confounding factors, researchers also included several control variables: the current ratio, debt-to-equity ratio, and growth in net assets.

The data collection method employed in this study involved documentation review, including literature, journals, previous research, and published reports, to gain an overview of the issues under investigation. Additionally, secondary data were collected from reports published by stock exchanges in the ASEAN region. The objects of the study were non-financial companies listed on stock exchanges in ASEAN countries during the 2014-2019 period. The data used were selected based on the following criteria:

Non-financial companies listed on stock exchanges in ASEAN from 2014 to 2019.

Non-financial companies in ASEAN countries that are registered as part of the 30 emerging market countries from 2014 to 2019.

Non-financial companies that generated profits consecutively during the 2014-2019 period.

Based on these criteria, 367 companies successfully met the requirements over six years, resulting in a dataset comprising 2,202 firm-year observations.

Table 1: Description of Variables

NO	Keterangan	Description	Formula	Satuan
1	Dividend Policy	Dividend policy is a policy used by an organization in deciding how much profit will be paid from the profits earned to shareholders (Murtaza et al., 2018). This dividend policy is reflected by the Dividend Payout Ratio (DPR) (Gitman et al., 2015)	DPR= $\frac{Dividen\ Per\ Share\ (DPS)}{Earning\ Per\ Share\ (EPS)}$ (Gitman et al., 2015)	Rasio
2	Collateralizable Assets	Collateralizable Assets is the amount of assets that can be guaranteed by the company to creditors (Wahjudi, 2020). So, the higher the assets that can be used will reduce the conflict of interest between shareholders and creditors.	Collas= $\frac{Total\ Asset\ Tetap}{Total\ Assets}$ (Wahjudi, 2020)	Rasio
3	Return On Assets	Return on assets is a ratio that is often used in looking at a company's ability to make profits, which is also used in looking at the good or bad financial performance of a company. Return on assets is also known as the return on investment, which is seen from the results on the amount of assets used in a company (Kasmir, 2017).	ROA = $\frac{Net\ Profit}{Total\ Assets}$ (Kasmir, 2017)	Rasio
4	Cash Flow Operating	According to N Suhardianto, Devi S (2014) Cash Flow is a report that reports cash inflows and major cash outflows from a company over a given period	CFO = $\frac{Operating\ Cash\ Flow}{Total\ Assets}$ (Brigham & Houston, 2010)	
3	Growth In Net Assets	Growth in net assets is the growth that occurs in the number of assets owned by a company. This asset growth is also a ratio that can indicate asset growth, where assets are located assets used for the company's operational activities (Riyanto, 2013)	NAST_G= $\frac{Total\ Assets\ (t) - Tottal\ Assets\ (t-1)}{Tottal\ Assets\ (t-1)}$ (Wahjudi, 2020)	Rasio
6	Current Ratio	According to (Brigham & Daves, 2018), the current ratio is a ratio that will indicate the company's ability to cover current liabilities compared to the company's assets, which is expected to be converted into cash in the near future. The current ratio is calculated by dividing asset flows by current liabilities.	CR = $\frac{Current\ Assets}{Current\ Liabilities}$ (Brigham & Houston, 2018)	Rasio
7	Debt To Equity Ratio	Debt to equity ratio is the ratio used in looking at the ratio of the amount of debt to equities held by a company. (Wahjudi, 2020) argues that this debt to equity ratio is the ratio of total debt to equities, which will show a company's ability to pay off all its debts.	DER = $\frac{Total\ Liability}{Total\ Equity}$ (Gitman et al., 2015)	Rasio

The analysis method used in this study involved quantitative analysis, expressed numerically, and conducted using statistical methods supported by static data processing programs. The methods employed included descriptive analysis and panel data modelling, which combines cross-sectional and time-series data. From this data, two models were considered: static data models and dynamic data models.

The originality of using the dynamic panel data model lies in its ability to address the problem of endogeneity, particularly when using lagged dependent variables. In static data models, using lagged dependent variables can lead to biased estimations due to issues of consistency and reliability. In contrast, dynamic panel data models, such as the Arellano and Bond model, utilize orthogonality conditions present in the lagged values and error terms, making them more suitable for short panel structures (N<T) (Roodman, 2009).

Dynamic panel data is particularly useful in handling linear regression specifications where persistence is observed in the dependent variables, endogeneity is present in explanatory variables, fixed effects exist in cross-sectional data, and autocorrelation and heteroscedasticity are present within cross-sectional units. Given these considerations, the dynamic data model is highly generalized and well-suited for autoregressive economic data.

3.1. Empirical Model

Based on the discussion above, the rationale for using the GMM System is to estimate the system of equations either in first differences or at the level, with the instrument used at that level being the lagged first difference of the series. We estimate that variables such as COLLAS, ROA, and CFO may be endogenous because they are defined and measured from variables of interest to the dependent variables. According to Blundell & Bond (1998), it is important to leverage initial conditions to produce efficient estimates in dynamic panel data models when the T value is small. Therefore, the models analyzed in this study are as follows:

$$DPR = a_0 + a_1 DPR_{it-1} + \beta_1 COLLAS_{it} + \beta_2 ROA_{it} + \beta_3 CFO_{it} + \beta_4 NAST_{G\,it} + \beta_5 CR_{it} + \beta_6 DER_{it} + u_{it} \quad (1)$$

Information :

DPR: Dividend Payout Ratio as dependent variable

a: Constanta

COLLAS: Collateralizable Assets as independent variable

ROA: Return on Assets as independent variable

CFO: Cash Flow Operating as the independent variable

NAST_G: Growth in Net Assets as independent variable

CR: Current Ratio as a control variable

DER: Debt to Equity Ratio as control variable

β: Beta

u: Error reggresi data panel

v: Cross-section residual

e: Error

The GMM system requires multiple model specifications to provide valid and consistent results, ensuring no serial correlation with errors. The first test examines the model's feasibility by evaluating the values of AR(1) and AR(2). The most important value to consider is AR(2), which must reject the null hypothesis. The next test is the Hansen or Sargan test, used to determine the validity of the instrumental variables employed. The model is considered feasible if the chi-square probability value falls within a significant range of 0.1 to 0.9, indicating that the instrumental variables used are valid.

4. Results / Analysis

In the initial phase of testing, we first applied the panel data method, followed by testing using the OLS, Fixed Effect, and Random Effect methods. We began by presenting the results of the descriptive statistics, followed by the results of the tests using the GMM system.

4.1. Descriptive Statistics

Table 2 shows the descriptive statistics used in the study, including the number of observations, means, standard deviations, minimums, maximums, and percentiles (1%, 5%, 95%, and 99%). This table focuses on explaining the variables under study as well as the variables of interest (VIR) in this research.

From Table 4.1, it can be seen that from 2,202 observations, the 2014-2019 DPR has a mean value of 39.34% with a standard deviation of 42.84%. The minimum value is 0%, and the maximum value is 238.8%. Meanwhile, COLLAS has an observation count of 2,202, with a mean value of 52.53% for the period 2014–2019, a standard deviation of 20.51%, a minimum value of 21.54%, and a maximum value of 91.68%. For the second VIR variable,

ROA, the observation count is 2,202, with a mean value of 8.56%, a standard deviation of 7.66%, a minimum value of 1.52%, and a maximum value of 44.64%. Finally, for the third VIR, CFO, with a total observation count of 2,202, the 2014-2019 mean is 14.72%, with a standard deviation of 11.64%. The minimum value is 3.12%, and the maximum value is 58.28%.

Table 2: Descriptive Statistics

		DPR	COLLAS	ROA	OCF	NAST_G	CR	DER
Obs		2,202	2,202	2,202	2,202	2,202	2,202	2,202
Mean		39.345	52.540	8.563	14.721	9.703	2.221	113.662
Standard Deviation		42.841	20.515	7.661	11.645	14.789	1.648	106.549
Min		0	21.54	1.52	3.12	-4.71	0.85	25.04
Max		238.8	91.68	44.64	58.28	89.76	10.29	710.32
	1%	0	21.54	1.52	3.12	-4.71	0.85	25.04
	5%	0	21.54	1.52	3.12	-4.71	0.85	25.04
	95%	109.58	86.73	21.59	37.64	33.78	5.26	303.94
	99%	238.8	91.68	44.64	58.28	89.79	10.29	710.32

This table reports descriptive statistics, statistics reported are a number of observations, mean, standard deviation, min, max and percentiles (1%, 5%, 95%, and 99%). All variables are in percentage terms.

4.2. Regresi Data Panel

After performing descriptive statistics, we proceeded with panel data processing. The results, presented in Table 4.2, include regression outcomes using Ordinary Least Squares (OLS), Fixed Effect (FE), Random Effect (RE), and their conditions. The regression results indicate that this study favours FE, as the Chow test shows a p-value of 0.000, which is less than the alpha value of 0.05. From this, it can be concluded that when comparing the OLS model with FE, the best model is FE.

Additionally, to compare FE with RE, we conducted the Hausman test, which is used to determine which model is better between FE and RE. The Hausman test results show a significant value of 0.000, which is smaller than the alpha value of 0.05, indicating that the best model for this study is FE.

From the regression results using the FE model, we found that only ROA and CFO influence the DPR of non-financial companies, but their influence is negative. Due to this, we suspect that the study has an endogeneity issue, leading us to conduct further analysis using the GMM system method.

Table 3: Regression data panel

Variables	OLS		FE		RE	
	Coeff	SE	Coeff	SE	Coeff	SE
COLLAS	0.170***	-0.057	-0.004	-0.143	0.189**	-0.080
ROA	0.635***	-0.133	-1.142***	-0.271	0.021	-0.182
CFO	-0.109	-0.101	-0.609***	-0.182	-0.362***	-0.129
NAST_G	-0.390***	-0.061	-0.057	-0.056	-0.168***	-0.055
CR	3.142***	-0.647	0.676	-1.054	2.495***	-0.804
DER	0.032***	-0.009	-0.021	-0.020	0.0149	-0.013
Constant	19.74***	-4.123	59.85***	-9.587	28.97***	-5.695
Observations	2,202		2,202		2,202	
R-squared	0.04		0.036			
Number of ID			367		367	
Chow Test			5.05***	0.0000		
LM Test					721.7***	0.0000
Hausman Test					142.4***	0.0000

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.3. System GMM

Given the potential for bias and the presence of dynamic data in this study, as evidenced by the statistically significant coefficient of the lagged variable (0.010) shown in Table 4, the Generalized Method of Moments (GMM) was employed to address issues caused by dynamic panel data models. The results of the regression using the GMM system are presented in Table 4.

Table 4 explains some of the best model specifications used in this study. In Model 1, it is assumed that all variables are endogenous. In Model 2, all independent variables are assumed to be endogenous, with the addition of the lag of DPR as an endogenous variable. However, both models failed the validity test; Model 1 failed because it has a Hansen value of 0.094, which is less than the required 0.100. Additionally, the AR(2) value of Model 1 is below the significance level of 0.100, indicating an autocorrelation problem. Model 2 encountered a similar issue;

although the AR(2) value is above the significance level of 0.100, the Hansen test value is still below the required significance level.

Given the validity test failures of Models 1 and 2, we explored several approaches to find the best estimate. Ultimately, we identified Model 3, assuming that the endogenous variables are COLLAS, ROA, and the CR control variable, while the exogenous variable is CFO with one of the DER control variables.

To ensure the appropriateness of Model 3, we conducted a validity check using two tests: the Hansen test, which ensures no endogeneity, and the autocorrelation test using the Arellano-Bond AR(2) test. The results, shown in Table 4.3, indicate that the Hansen test has a p-value of 0.155, greater than the 0.100 requirement. Additionally, the AR(2) test results show that the p-value is higher than the required threshold, confirming the model's validity. These findings support the stability and validity of the dynamic model proposed.

The study results indicate that collateralizable assets, return on assets, and operating cash flow collectively have a significant impact on dividend policy, with a p-value of < 0.010, signifying a significance level greater than 1%. However, in the first VIR, we initially hypothesized (H1) that collateralizable assets would have a positive and significant impact on dividend policy. Upon investigation, we found that these assets have no statistical significance, whether at the 1%, 5%, or 10% significance levels. Consequently, we reject H1, concluding that collateralizable assets do not impact dividend policy, which indirectly supports the findings of Wahjudi (2020).

For the second VIR, ROA, the findings align with some previous research and the initial hypothesis (H2) that profitability, measured by ROA, has a significant positive effect on dividend policy. Our research shows that ROA has a significance level below 1%, leading us to accept H2. The coefficient percentage reported is positive at 5.227, indicating that an increase in ROA enhances a company's dividend policy. Conversely, if ROA declines, the company's dividend policy will also decline, consistent with the hypothesis that ROA has a significant positive effect on dividend policy. This supports Dewasiri et al. (2019), who also found that ROA positively and significantly impacts dividend policy.

For the third VIR, the CFO, our initial hypothesis (H3) stated that the CFO would have a positive and significant influence on dividend policy. However, upon analysis, we found that CFO contradicts our previous hypothesis, as the research results show that CFO has a significance level below 10%, with a coefficient value of -1.639. This indicates that the CFO has a significant but negative influence on dividend policy. This finding supports Supardi (2018), who stated that CFO has a significant negative effect on dividend policy. A higher CFO reduces the dividend policy a company will pursue. The results of this discussion can be seen in Table 4 below:

Table 4: Regression Data Panel Dinamis

Variables	Model 1		Model 2		Model 3	
	Coeff	SE	Coeff	SE	Coeff	SE
DPR (-1)	0.392***	0.168	0.158 **	0.078	0.531***	0.154
DPR (-2)	-0.385	0.253	-0.046	0.071	-0.229	0.211
COLLAS	0.270	0.673	1.014	0.658	1.028	0.666
ROA	4.597 ***	1.412	3.544 ***	1.344	5.227***	1.567
CFO	-0.177	0.868	-0.634	0.802	-1.639*	0.860
NAST_G	-0.559 ***	0.193	-0.280 **	0.121	0.086	0.306
CR	2.690	3.066	5.841 *	3.106	-1.467	7.048
DER	0.071***	0.028	0.061 ***	0.020	0.008	0.033
Constant	-19.597	46.772	-56.274	43.747	-44.940	47.615
Observations	1,468		1,468		1,468	
Number of ID	367		367		367	
F Stat - p Value	48.35***	0.000	55.50***	0.000	59.71***	0.000
Hansen - p Value	23.46	0.094	0.000	55.69	28.65	0.155
AR(1) stats - p Value	-4.130	0.000**	-4.990	0.000**	-4.17	0.000**
AR(2) stats - p Value	1.930	0.099	0.490	0.625	1.54	0.124

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.4. Robustness Check

To bolster this research, we conducted robustness tests to demonstrate the impact of each VIR used. We did this by replacing and substituting some existing VIRs. In the testing process, we conducted three experiments: in the first experiment, we used only COLLAS and ROA as VIRs; in the second experiment, we used COLLAS and CFO as VIRs; and in the final experiment, we used ROA and CFO as VIRs. The results, shown in the table below, indicate that our analysis is robust.:

Table 5: Robustness Sequential Inclusion

Variables	Model 1		Model 2		Model 3	
	Coeff	SE	Coeff	SE	Coeff	SE
DPR (-1)	0.519***	0.193	0.475***	0.224	0.781***	0.249
DPR (-2)	-0.357***	0.198	0.049	0.181	-0.147	0.273

COLLAS	0.239	0.508	-0.078	0.466		
ROA	3.795***	1.175			5.766***	1.565
CFO			1.644**	0.760	-1.024**	0.424
NAST_G	0.120	0.271	0.400	0.327	0.032	0.346
CR_W	2.919	2.331	0.607	2.691	-3.248	6.064
DER_W	0.051*	0.030	0.007	0.023	0.013	0.031
Constant	-25.048	35.804	-8.167	30.255	-13.864	23.311
Observations	1,468		1,468		1,468	
Number of ID	367		367		367	
F Stat - p Value	64.33***	0.000	80.77***	0.000	91.51***	0.000
Hansen - p Value	23.46	0.102	21.23	0.170	22.92	0.116
AR(1) stats - p Value	-4.38	0.000**	-3.32	0.000**	-3.29	0.009**
AR(2) stats - p Value	1.93	0.154	0.49	0.625	1.11	0.268

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Across the various alternatives used, we found that COLLAS consistently had no significant impact on dividend policy. In the first experiment, when substituting COLLAS and ROA, the analysis showed that the significant value of COLLAS was greater than the alpha value, whether at 1%, 5%, or 10%. However, ROA consistently had a significant positive impact, with a significance value of less than 1%, reinforcing the strong influence of ROA on a company's dividend policy.

In the second experiment, using COLLAS and CFO as VIRs, COLLAS again showed no significant influence on dividend policy. However, CFO consistently influenced a company's dividend policy, in line with the previous analysis.

In the final step, using ROA and CFO as VIRs, the results, as seen in Table 4.4, indicate that both ROA and CFO significantly influence dividend policy. The findings align with our initial analysis, where ROA has a positive effect on dividend policy, while CFO has a negative effect.

Before concluding the results, we also considered Hansen's test and autocorrelation. The results showed no significant changes, and the findings were consistent with the first analysis, with only minor coefficient changes due to the number of variables used..

5. Discussion

The regression results indicate that this study is focused on FE users, as the Chow test shows that the p-value for this model is 0.000, which is less than the alpha value of 0.05. From this, it can be concluded that when comparing the OLS model and FE, the best model is FE. This study demonstrates that dynamic data is present, as evidenced by the coefficient value of the lag variable, which has a statistically significant value of 0.010 in Table 4. For this reason, the Generalized Method of Moments (GMM) was used to address issues arising from dynamic panel data models. The results showed that collateralizable assets, return on assets (ROA), and operating cash flows had a significant influence on dividend policies; however, upon further investigation, it was determined that collateralizable assets did not have statistical significance. Consequently, this research led to the rejection of hypothesis (H1), indicating that collateralizable assets do not impact dividend policy.

Additionally, our research supports the rejection of the previous hypothesis, indirectly corroborating other studies. In our study, we found that ROA had a significance level lower than 1%, encouraging us to accept hypothesis (H2). This finding supports a statement from Dewasiri et al. (2019), which asserts that ROA also has a positive and significant effect on dividend policies. Furthermore, this study found that the CFO had a significant but negative influence on dividend policy. This finding supports the notion that the CFO will have a significant negative influence on dividend policies, as a high CFO might reduce the dividend policy that the company adopts (Supardi, 2018).

6. Conclusion

This study examines the impact of collateralizable assets, profitability, and operating cash flow on dividend policy. The researchers used multiple control variables to ensure that the study was unbiased. The findings reveal that collateralizable assets do not affect a company's dividend policy. However, profitability and operating cash flow have opposing effects on the dividend policy of non-financial companies. Profitability exerts a positive influence while operating cash flow has a negative impact. Based on our research, we suggest that companies maintain their profitability by implementing dividend policies that benefit both investors and the company itself. Regarding operating cash flow, the negative impact on dividend policy may result from using high cash flow for other purposes, potentially reducing the dividend policy that could otherwise benefit shareholders. Companies should manage their operating cash flow effectively, ensuring that sufficient funds are allocated for dividend payments. We hope this study serves as a reference or guide for companies outside the financial sector to conduct further analysis, enabling them to perform better. Future researchers may consider extending the study period and incorporating more recent years to provide more current insights and explore other variables that may influence dividend policy determination.

Acknowledgement Statement: The authors would like to thank all participants and the reviewers for providing comments in helping this manuscript to completion.

Conflicts of interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding statements: This research has not received any funding.

Data availability statement: Data is available at request. Please contact the corresponding author for any additional information on data access or usage.

Disclaimer: The views and opinions expressed in this article are those of the author(s) and contributor(s) and do not necessarily reflect IJSSER's or editors' official policy or position. All liability for harm done to individuals or property as a result of any ideas, methods, instructions, or products mentioned in the content is expressly disclaimed.

References

Aney, M., Ghatak, M., & Morelli, M. (2016). Credit market frictions and political failure. *Journal of Monetary Economics, 81*, 1-10. https://doi.org/10.1016/j.jmoneco.2016.03.012

ASEAN Secretariat. (2021). ASEAN Investment Report 2020-2021: Investing in Industry 4.0. In *ASEAN Secretariat*. http://investasean.asean.org/files/upload/ASEAN%0AInvestment%0AReport%0A2020-2021.pdf

Baker, H. K., Dewasiri, N. J., Yatiwelle Koralalage, W. B., & Azeez, A. A. (2019). Dividend policy determinants of Sri Lankan firms: A triangulation approach. *Managerial Finance, 45*(1), 2-20. https://doi.org/10.1108/MF-03-2018-0096

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics, 87*(1), 115-143. https://doi.org/10.1016/S0304-4076(98)00009-8

Brigham, E. F., & Daves, P. R. (2018). *Intermediate financial management*. Cengage Learning.

Darmayanti, N. K. D., & Mustanda, I. K. (2016). Effect of sales growth, asset collateral, and company size on dividend policy in the consumer goods industry sector. *Udayana University*. https://erepo.unud.ac.id/id/eprint/8756

Dewasiri, N. J., Yatiwelle Koralalage, W. B., Abdul Azeez, A., Jayarathne, P., Kuruppuarachchi, D., & Weerasinghe, V. A. (2019). Determinants of dividend policy: Evidence from an emerging and developing market. *Managerial Finance, 45*(3), 413-429. https://doi.org/10.1108/MF-09-2017-0331

Gitman, L. J., Juchau, R., & Flanagan, J. (2015). *Principles of managerial finance*. Pearson Higher Education AU. www.pearson.com.au

Granda Carvajal, C. (2015). Informality and macroeconomic volatility: Do credit constraints matter? *Journal of Economic Studies, 42*(6), 1095-1111. https://doi.org/10.1108/JES-03-2014-0043

Henrekson, M., & Stenkula, M. (2017). The entrepreneurial rent: The value of and compensation for entrepreneurship. *Journal of Entrepreneurship and Public Policy, 6*(1), 11-25. https://doi.org/10.1108/JEPP-07-2016-0027

Hidayat, R. (2019). The effect of profitability, capital structure and operating cash flow on company dividend policy (Case study of manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange). *Jurnal Pendidikan Akuntansi & Keuangan, 5*(2), 79-88. https://doi.org/10.17509/jpak.v5i2.15406

Hughes, H., & Woldekidan, B. (1994). The emergence of the middle class in ASEAN countries. *ASEAN Economic Bulletin*, 139-149. http://www.jstor.org/stable/25770536

Ifada, L. M., & Kusumadewi, N. (2014). Effect of net income, operational cash flow, investment opportunity set and firm size on cash dividends. *Jurnal Dinamika Akuntansi, 6*(2), 177-190. https://journal.unnes.ac.id/nju/index.php/jda/article/view/3256

Jabbouri, I. (2016). Determinants of corporate dividend policy in emerging markets: Evidence from MENA stock markets. *Research in International Business and Finance, 37*, 283-298. https://doi.org/10.1016/j.ribaf.2016.01.018

Jannah, W., Juanda, A., & Prasetyo, A. (2019). The influence of funding decisions and dividend policy on firm value with earnings quality as a moderating variable. *Jurnal Akademi Akuntansi, 2*(1). https://doi.org/10.22219/jaa.v2i1.8360

Kasmir. (2017). *Financial statement analysis*. Raja Gravindo Persada.

Kudeshia, C., & Kumar, A. (2017). Social eWOM: Does it affect the brand attitude and purchase intention of brands? *Management Research Review, 40*(3), 310-330. https://doi.org/10.1108/MRR-07-2015-0161

Luchs, M. G., & Kumar, M. (2017). "Yes, but this other one looks better/works better": How do consumers respond to trade-offs between sustainability and other valued attributes? *Journal of Business Ethics, 140*, 567-584. https://doi.org/10.1007/s10551-015-2695-0

Mamduh, M. H., & Abdul, H. (2016). *Financial statement analysis*. Yogyakarta: UPP STIM YKPN.

Murtaza, M., Iqbal, M. M., Ullah, Z., Rasheed, H., & Basit, A. (2018). An analytical review of dividend policy theories. *Journal of Advanced Research in Business and Management Studies, 11*(1), 62-76. https://www.akademiabaru.com/submit/index.php/arbms/article/view/1292

Nguyen, T. T. N., & Bui, P. K. (2019). Dividend policy and earnings quality in Vietnam. *Journal of Asian*

Business and Economic Studies, 26(2), 301-312. https://doi.org/10.1108/JABES-07-2018-0047

Riyanto, B. (2013). *Corporate spending fundamentals* (4th ed.). BPFE.

Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The Stata Journal, 9*(1), 86-136. https://doi.org/10.1177/1536867X0900900106

Ross, S. A., Westerfield, R. W., Jordan, B. D., Wong, R., & Wong, B. (2015). *Essential of corporate finance Asia global edition*. Singapore: McGraw-Hill Education.

Salim, R., Rafiq, S., Shafiei, S., & Yao, Y. (2019). Does urbanization increase pollutant emission and energy intensity? Evidence from some Asian developing economies. *Applied Economics, 51*(36), 4008-4024. https://doi.org/10.1080/00036846.2019.1588947

Suhardianto, N., & Kalanjati, D. S. (2014). *Introduction to Indonesian accounting-adaptation*. Salemba Empat, Jakarta.

Sukmawardini, D., & Ardiansari, A. (2018). The influence of institutional ownership, profitability, liquidity, dividend policy, debt policy on firm value. *Management Analysis Journal, 7*(2), 211-222. https://doi.org/10.15294/maj.v7i2.24878

Supardi, N. N. U. (2018). Effect of earning after tax (EAT) and operating cash flow on the dividend payout ratio (DPR) in companies registered on the Jakarta Islamic Index (JII): Study of PT. Bukit Asam Coal Mine (Persero) Tbk. *UIN Sunan Gunung Djati Bandung*. http://digilib.uinsgd.ac.id/id/eprint/9815

Tekin, H., & Polat, A. Y. (2021). Do market differences matter on dividend policy? *Borsa Istanbul Review, 21*(2), 197-208. https://doi.org/10.1016/j.bir.2020.10.009

Tijjani, B., & Sani, A. (2016). An empirical analysis of free cash flow and dividend policy in the Nigerian oil and gas sector. *Research Journal of Finance and Accounting, 7*(12). https://ssrn.com/abstract=2903494

Wahjudi, E. (2020). Factors affecting dividend policy in manufacturing companies in Indonesia Stock Exchange. *Journal of Management Development, 39*(1), 4-17. https://doi.org/10.1108/JMD-07-2018-0211

Wijaya, R. A., & Yamasitha, Y. (2020). Effect of profitability, ownership structure, collateralizable assets, free cash flow on dividend payout ratio with company size as control. *Jurnal Ekonomi Dan Bisnis Dharma Andalas, 22*(1), 157-171.

Wong, J., & Chan, S. (2003). China's outward direct investment: Expanding worldwide. *China: An International Journal, 1*(02), 273-301. https://doi.org/10.1142/S0219747203000177