DIVIDEND POLICY: ARE AGENCY COSTS AND R&D INVESTMENTS IMPORTANT?

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Abstrak

Kebijakan dividen merupakan salah satu komponen penting yang tidak lepas kaitannya dengan laba suatu perusahaan. Dalam penelitian ini akan diuji mengenai kebijakan dividen perusahaan yang tergabung dalam indeks saham *IDX High Dividend 20* dengan memperhatikan faktor *agency cost* yang di proksikan oleh *free cash flow, dispersion of ownership, insider of ownership, dan assets growth* serta tingkat *R&D investment* yang dilakukan. Dalam rentang waktu antara 2018 hingga 2022 sudah ada 31 perusahaan yang pernah tergabung dalam indeks saham dengan tingkat *dividend yield* tertinggi ini. Hasil penelitian ini menunjukkan bahwa *free cash flow* berpengaruh positif signifikan terhadap kebijakan dividen dan *insider ownership* berpengaruh negatif signifikan terhadap kebijakan dividen. Sedangkan untuk variabel *dispersion of ownership, assets growth,* dan *R&D investment* tidak berpengaruh terhadap kebijakan dividen. Adapun beberapa implikasi yang dapat diterapkan oleh perusahaan adalah dapat meningkatkan jumlah dividen yang akan dibagikan dengan meningkatkan jumlah *free cash flow* yang ada, mempertimbangkan secara detail potensi kepentingan dari adanya *insider ownership* agar dapat memutuskan suatu kebijakan yang tepat, dan dapat menggunakan dana internal dengan bijak baik untuk membagikan dividen atau melakukan *R&D investment.*

Kata Kunci: Kebijakan Dividen, *Agency Cost, R&D Investment, IDX High Dividend 20*
JEL Code: D42, D40, D51

Abstract

Dividend policy is an essential component that cannot be separated from a company's profits. In this research, the dividend policy of companies included in the IDX High Dividend 20 stock index will be tested by paying attention to the agency cost factor, which is proxied by free cash flow, ownership dispersion, insider ownership, and asset growth as well as the level of R&D investment carried out. Between 2018 and 2022, 31 companies joined the stock index with the highest dividend yield. This research shows that free cash flow significantly and positively affects dividend policy, and insider ownership significantly and negatively affects dividend policy. Meanwhile, the variables dispersion of ownership, asset growth, and R&D investment do not affect dividend policy. Some of the applications that companies can implement are being able to increase the number of dividends that will be announced by increasing the amount of free cash flow available, considering in detail the potential interests of insider ownership to decide on an appropriate policy, and being able to use internal funds wisely for good purposes. Distribute dividends or make R&D investments.

Keywords: Dividend Policy, Agency Cost, R&D Investment, IDX High Dividend 20
JEL Code: D42, D40, D51

INTRODUCTION

IDX High Dividend 20 is a stock index containing 20 companies consistently distributing cash dividends in the last three years with the highest dividend yield (www.idx.co.id). Even though the companies in this index have a high dividend yield, several companies still fail to distribute their dividends. The following are several companies that choose to retain all their net profits as additional working capital:

Table 1. List of 20 IDX High Dividend Companies that do not distribute dividends

Company Name	Year	Earnings per Share
Gudang Garam Tbk.	2019	5.655,00
Matahari Department Store Tbk.	2019	492,00
Waskita Beton Precast Tbk.	2021	79,27
Charoen Pokphan Indonesia Tbk.	2022	179,00

Source: www.idx.co.id

Apart from that, the IDX High Dividend 20 annually carries out a significant evaluation that aims to evaluate constituents and weight adjustments carried out at the end of January and are effective every stock exchange day starting in February (www.idx.co.id). As a result of this evaluation, many companies entered and left one after another in this stock index. The following are the results of the significant evaluation of IDX High Dividend 20 carried out by the Indonesian Stock Exchange:

Table 2. Primary Evaluation Results of IDX High Dividend 20

Major Evaluation Period	Entry Company	Company Exit
January 2019	Bank Tabungan Negara (Persero) Tbk. Indah Kiat Pulp & Paper Tbk. Bukit Asam Tbk.	Puradelta Lestari Tbk. Mitra Pinasthika Mustika Tbk. Industri Jamu dan Farmasi Sido Tbk.
January 2020	Charoen Pokphand Indonesia Tbk Kalbe Farma Tbk. Perusahaan Gas Negara Tbk. Sarana Menara Nusantara Tbk.	Bank Tabungan Negara (Persero) Tbk. BPD Jawa Barat dan Banten Tbk. BPD Jawa Timur Tbk. Indah Kiat Pulp & Paper Tbk.
January 2021	Puradelta Lestari Tbk. Waskita Beton Precast Tbk.	Gudang Garam Tbk. Matahari Department Store Tbk.
January 2022	Adira Dinamika Multi Finance Tbk. Aneka Tambang Tbk. Hexindo Adiperkasa Tbk. Mitra Pinasthika Mustika Tbk.	Puradelta Lestari Tbk. Indocement Tunggal Prakarsa Tbk. Perusahaan Gas Negara Tbk. Waskita Beton Precast Tbk.

Source: www.idx.co.id

Based on the two phenomena above, it provides an overview of how dividend policy is implemented. Even though they have joined the IDX High Dividend 20, some companies still do not consistently distribute cash dividends with high dividend yields. As a result, quite a few companies have had to be replaced by others.

This dividend policy is a crucial issue for management. Companies cannot use all profits earned for dividend distribution but must pay attention to other aspects, such as business development and fulfilling obligations (Sidharta & Nariman, 2021). On the other hand, companies cannot retain all the profits they earn because shareholder rights must be distributed (Dhova et al., 2022). These

differences in interests are often the cause of agency conflicts. This conflict can be minimized using a dividend payment mechanism by increasing the proportion of cash dividends from the profits earned (Jensen & Meckling, 1976). However, implementing this mechanism increases agency costs (Lailiyah & Abadi, 2021).

Various aspects can determine dividend policy. Based on agency theory, the aspect that influences dividend policy comes from agency costs, which are considered capable of minimizing conflict between investors and management. Judging from agency costs, the first is free cash flow. Free cash flow is a condition where a company experiences excess cash flow even though it has funded all projects (Jensen, 1986). With high free cash flow, it would be better if these funds were used as dividends for shareholders (Jensen, 1986). This statement is in line with research from Hantono et al. (2019), Sejati et al. (2020), and Tjhoa (2020), who concluded that free cash flow influences dividend policy in a positive direction. However, according to Pangestytyca et al. (2022), Wulandari et al. (2022), and Sukarti et al. (2022) state that free cash flow has a significant negative effect on dividend policy.

Furthermore, the second agency cost proxy is the dispersion of ownership or what can be called the distribution of ordinary shares among the general public. It has no special relationship with the company (Vernando & Halmawati, 2016). By agency theory, the broader distribution of shareholders will impact the difficulty of the company monitoring process (Muniifah, 2021). These difficulties can give rise to agency problems that must be resolved with various options, one of which is dividend distribution (Lailiyah & Abadi, 2021). This statement is supported by Lailiyah & Abadi (2021), Muniifah (2021), and D. Miller et al. (2022) that the distribution of ordinary shares have a positive effect on dividend distribution. However, these results were disputed (Lariwu et al., 2021), who stated that there was a negative influence, and Julianti (2020), who concluded that the two variables did not influence each other.

Then the third proxy is insider ownership, which is ordinary shares owned by company insiders (commissioners and directors) (Lailiyah & Abadi, 2021). By agency theory, companies with high managerial (insider) ownership tend to distribute dividends in small amounts because management tends to like the profits generated to be retained temporarily to fund business development. Even though management has ownership rights over the company, they still think that investment for its sustainability will be more efficient in utilizing internal funds than external funds (Rahayu & Rusliati, 2019). This concept is supported by research from Shaheen and Ullah (2018), Dhuhri and Diantimala (2018), and Rahayu and Rusliati (2019), which concluded that insider ownership negatively influences dividend policy. However, this research contradicts research from Dwijaya & Hariyati (2020), Wahyudi & Baidori (2020), and Lailiyah & Abadi (2021), which concluded that insider ownership does not influence decision-making regarding the company's dividend policy.

The final agency cost is related to company growth, usually seen in asset growth, defined as the annual change in the company's total assets (Dhova et al., 2022). This growth can lead to an increase in depreciation and maintenance costs to encourage asset growth. This ultimately resulted in companies prioritizing using profits to finance asset growth compared to paying dividends (Afriyeni & Deas, 2019). This is following research from Tjhoa (2020), Anwer et al. (2021), and Pangestytyca et al. (2022), who conclude that asset growth hurts dividend policy. However, according to Afriyeni & Deas (2019), Sejati et al. (2020), and Akbar et al. (2021), company growth (assets growth) does not affect dividend policy.

The final variable in the research is R&D investment, which is the primary driver of long-term economic growth. The aim is to keep the company existing and superior to its various competitors (Yang et al., 2020). In its implementation, R&D Investment requires significant funds to support the success of the innovation. Having limited internal funds means that, in the end, the company must choose between paying dividends or pursuing R&D investment projects (DeAngelo et al., 2006). Because the two have opposing relationships, according to research from Fama & French (2001), Gugler (2003), and Bates et al. (2009) conclude that R&D Investment influences dividend policy in a

negative direction in the United States and Austria. Although it was denied by Yang et al. (2020) stated that there is a positive influence on companies in China.

This research examines how agency costs and R&D investment influence dividend policy, especially for companies that are members of the IDX High Dividend 20 for 2018-2022. This research refers to research from Tjhoa (2020) and Lailiyah & Abadi (2021) for agency costs with similarities in the variables free cash flow, dispersion of ownership, insider ownership, and company growth (assets growth). Then, R&D Investment is an additional variable as a development of previous research. The R&D Investment variable refers to research by Yang et al. (2020), where in Indonesia, research is rarely carried out using these variables, especially those related to dividend policy.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION
Agency Theory

Jensen and Meckling (1976) put forward agency theory, which discusses the relationship that arises from an agreement between the investor (principal) who gives responsibility for company management to the management (agent). Both shareholders and managers have different interests (Putra & Bahri, 2023). One of the common differences in interests is that company management wants dividend distribution to be as minimal as possible so that the profits earned by the company can be reinvested. However, investors want dividends distributed in large quantities as a reference for assessing company performance in generating profits (Fitria & Yulianto, 2022). This difference in interests is often the cause of agency conflicts. This conflict between management and investors can be minimized using a monitoring mechanism that can explain several related interests. However, implementing this mechanism creates agency costs (Lailiyah & Abadi, 2021).

Dividend Policy

A dividend policy is a policy that concerns the decision of whether profits earned will be distributed to investors or retained to be reinvested for company development (Syofyan et al., 2020). The decision to distribute profits will affect the company's available funding. This means that the higher the profit retained, the less dividends will be distributed, and vice versa; if the higher the dividends are distributed, the company will lack funding for investment purposes (Ulfa et al., 2021). In determining this policy, it is essential to make the right decision, considering that it is hoped that this dividend policy will create a balance between dividends and company growth in the future (Tjhoa, 2020).

The Influence of Free Cash Flow on Dividend Policy

According to Hantono et al. (2019), Sejati et al. (2020), and Tjhoa (2020) conclude that free cash flow has a positive effect on dividend policy. This positive influence is because free cash flow is the remaining cash in the company's operational activities after capital expenditure, so it is free for management to use. Managers can use the free cash flow as dividends. An increase in free cash flow can be seen as a signal for the size of dividends that will be distributed. Moreover, free cash flow is much wiser if used as dividends (Jensen & Meckling, 1976). In this case, the greater the free cash flow ownership, the greater the dividends distributed.

H1: Free Cash Flow has a positive influence on dividend policy

The Influence of Dispersion of Ownership on Dividend Policy

According to Lailiyah & Abadi (2021), Muniifah (2021), and D. Miller et al. (2022) argue that dispersion of ownership has a positive effect on the amount of dividends paid. This positive influence is caused by the broader distribution of shareholders, which will impact the difficulty of the company monitoring process (Muniifah, 2021). So, this distribution makes the conflict between shareholders and management even greater. Companies can implement a policy to reduce this conflict by distributing significant dividends (Lailiyah & Abadi, 2021).

H2: Dispersion of Ownership Has a Positive Influence on Dividend Policy

The Influence of Insider Ownership on Dividend Policy

According to Shaheen and Ullah (2018), Dhuhri and Diantimala (2018), and Rahayu & Rusliati (2019), insider ownership hurts the amount of dividends paid. By agency theory, companies with high managerial (insider) ownership tend to distribute dividends in small amounts because management tends to like the profits generated to be retained temporarily to fund business development. Even though management has ownership rights over the company, they still think that investment for its sustainability will be more efficient in utilizing internal funds than external funds (Rahayu & Rusliati, 2019).

H3: Insider Ownership Has a Negative Influence on Dividend Policy

The Influence of Assets Growth on Dividend Policy

Research from Tjhoa (2020), Anwer et al. (2021), and Pangestytyca et al. (2022) argue that asset growth has a negative influence on dividend policy. His research explains that increasing asset growth means companies need a relatively large flow of funding to finance the growth of these assets (Tjhoa, 2020). In choosing a funding source, the company will prioritize internal funding sources first. Thus, according to the management agency theory, the company will allocate profits earned to fund asset growth rather than distribute them as cash dividends (Afriyeni & Deas, 2019).

H4: Assets Growth Has a Negative Influence on Dividend Policy

The Influence of R&D Investment on Dividend Policy

Fama & French (2001) and Bates et al. (2009) conclude that companies in the United States that make more R&D investments show a decrease in dividend payments, while Gugler (2003) concludes the same thing for a panel of companies in Austria. This negative influence is because R&D investment is a long-term innovation activity requiring significant funds. The company's ownership of internal funds is limited; in the end, companies with a high level of R&D investment tend to have an impact on reducing the nominal dividends to be distributed (Yang et al., 2020).

H5: R&D Investment has a negative influence on dividend policy

Based on the description above, the rationale for this research can be described as follows:
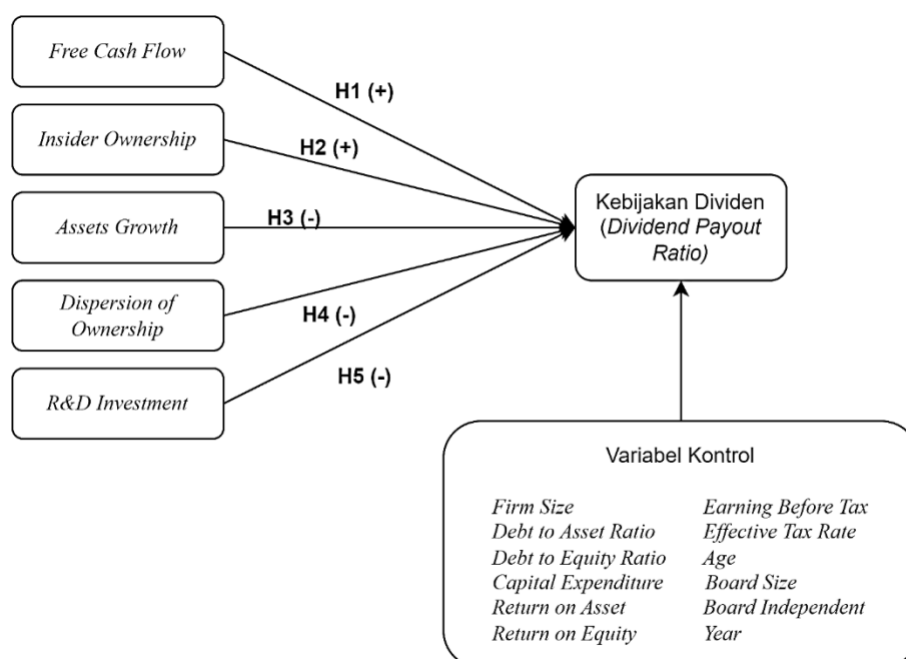
Figure 1. Framework of Thought

RESEARCH METHODS
Population, Sample, and Data Collection Techniques
      This type of research takes the form of quantitative analysis by collecting data related to the research topic through journals, theses, and articles on the internet, as well as the company's annual report on www.idx.co.id or the company's official website. The population tested in this research were companies listed on the Indonesian Stock Exchange. Meanwhile, the samples used in this research are companies that are members of the IDX High Dividend 20 stock index. Purposive sampling is used as a sampling technique where criteria are applied, namely that companies are listed on the Indonesia Stock Exchange and are members of the IDX High Dividend 20 stock index from 2018 to 2022. This research used 100 samples from 31 companies based on these criteria.

Dependent Variable
      A dependent variable (dependent) is a variable whose value is influenced by variations in the independent variable. This variable is often called a predicted variable or variable response (Suliyanto, 2018). The dependent variable used in this research is the Dividend Policy. According to Rizal & Triyanto (2021), dividend policy is proxied by the Dividend Payout Ratio (DPR), which can be calculated using the formula:

$$DPR = \frac{Dividend\ per\ share}{Earning\ per\ share}$$

Independent Variable
      An independent (free) variable is a variable that influences or determines the size of the value of another variable. Independent variables are often called predictor or stimulus variables (Suliyanto, 2018). The independent variables used are agency costs projected by free cash flow, dispersion of ownership, insider ownership, asset growth, and the additional variable R&D Investment.

Free Cash Flow
      Free cash flow (FCF) is a condition where a company experiences excess cash flow even though it has funded all projects (Jensen, 1986). The free cash flow, according to (Meer & Lodhi, 2017), can be calculated by:

$$FCF = \frac{(Operating\ cash\ flow - capital\ expenditure)}{Total\ assets}$$

Dispersion of Ownership
      Dispersion of ownership (DISPER), or the distribution of ordinary shares among the general public, has no special relationship with the company (Vernando & Halmawati, 2016). Vernando & Halmawati (2016) states that dispersion of ownership can be measured by:

$$Cap\ DISPER = \frac{Number\ of\ public\ shares\ (individual)}{Number\ of\ shares\ outstanding}$$

Insider Ownership
      Insider ownership (INSIDER) *namely ordinary shares owned by company insiders. The insider refers to share ownership by company commissioners and directors* (Lailiyah & Abadi, 2021). *Lailiyah Abadi (2021) state that insider ownership can be calculated using the formula:* $INSIDER = \frac{Number\ of\ insider\ shares}{Number\ of\ shares\ outstanding}$

Assets Growth

Assets growth (AG) *or which describes the growth conditions of the company's assets each year. According to* [Dhova et al. (2022)](#), *asset growth can be calculated using the following method:*

$$neAone \ \frac{Total\ assets\ (t) - total\ assets\ (t-1)}{Total\ assets\ (t-1)}$$

R&D Investment

R&D investment (RD) is the primary driver of long-term economic growth. The goal is to keep the company existing and superior to its competitors. According to [Yang et al. (2020)](#), R&D investment can be measured using the formula:

$$RD = \frac{R\&D\ expenditure}{Book\ value\ of\ total\ assets}$$

Control Variables

A control variable is a controlled variable that functions so that the relationship between the independent and dependent variables remains constant and is not affected by other variables not included in the research [(Suliyanto, 2018)](#). This research will use several control variables to determine what factors can influence a company's dividend policy. For the variables firm size, debt to assets ratio, return on assets, age, capital expenditure, the board size, and board independence, refer to research [(Yang et al., 2020)](#) and [Pramesti & Prajna (2022)](#). As for the variables debt to equity ratio, return on equity, earnings before tax, and effective tax rate, they refer to research conducted by [Barros et al. (2023)](#). Finally, the year variable refers to research conducted by [Pratama and Innayah (2021)](#). The following is the measurement of the control **variables along with the reference articles:**

Table 3. Measurement of Control Variables

No.	Control Variables	Measurement
1	*Firm Size*	Natural logarithm of book value of total assets
2	*Debt to Assets Ratio*	The amount of debt divided by the book value of total assets
3	*Debt to Equity Ratio*	Total debt divided by equity
4	*Capital Expenditure*	Capital expenditures divided by the book value of total assets
5	*Return on Asset*	The ratio of profit after tax to the book value of total assets
6	*Return on Equity*	The ratio of profit after tax to equity
7	*Earning Before Tax*	Profit before tax divided by revenue
8	*Effective Tax Rate*	Income tax expense divided by profit before tax
9	*Age*	Natural logarithm "1 + age"
10	*Board Size*	Natural logarithm of the number of board directors
11	*Board Independent*	The number of independent directors is divided by the number of board directors.
12	*Years*	Dummy variables for each year of the research period, excluding one period.

Data analysis technique

The data analysis technique in this research uses STATA software, with the regression model being panel data. This panel data analysis tests the influence of free cash flow, ownership dispersion, insider ownership, assets growth, and R&D investment on dividend policy. Panel data analysis consists of the OLS (Ordinary et al.) regression model, the RE (Random Effect) model, and the FE (Fixed Effect) model [(Damodar N. Gujarati & Dawn C. Porter, 2009)](#). The following is the regression analysis model in this research:

$$DPR = \alpha + \beta_1 FCF + \beta_2 DISPER + \beta_3 INSIDER + \beta_4 AG + \beta_5 RD + Control_n + \varepsilon$$

Details :
DPR : *Dividend payout ratio* (kebijakan dividen)
α : Constanta
β : Regression coefficient
FCF : *Free cash flow*
DISPER : *Dispersion of ownership*
INSIDER : *Insider of ownership*
AG : *Assets Growth*
RD : *R&D investment*
Control_n : Control variables with N = represent several variables

RESULTS AND DISCUSSION

Descriptive statistics

The descriptive statistics function is used to see the distribution of mean principal values. The standard deviation value can be considered as an indicator of data distribution. A more minor standard deviation indicates that the data is approaching the mean value. The following are descriptive statistics for the variables in this research:

Table 4. Descriptive statistics

Variable	Mean	Std. dev.	Min	Max
DPR	0.6189742	0.3377065	0	2.038835
FCF	0.0963319	0.1318635	- 0.4154528	0.4883748
DISPER	0.3543834	0.1559007	0.0211905	0.8252172
INSIDER	0.0074816	0.0272293	0	0.124034
AG	0.0985316	0.1708406	-0.198736	0.9220302
RD	0.0087679	0.0276217	0.0000186	0.1661084
SIZE	18.35586	3.962217	12.23658	30.93576
DAR	0. 530656	0.2539435	0.0415371	1.403734
DER	2.270405	2.680509	-3.476878	11.30431
CAPEX	0.0378155	0.0452376	0.0000562	0.2828114
ROA	0.1001394	0.1096105	-0.2823802	0.4542669
ROE	0.2305255	0.3372314	-1.502588	1.450882
EBT	0.1990971	0.1722024	-0.9597311	0.5354595
ETR	0.2183241	0.1117645	-0.4654592	0.4909211
AGE	3.731607	0.4814422	2.079442	4.49981
B SIZE	2.029867	0.3510405	1.098612	2.564949
BINDEP	0.0474168	0.0876168	0	0.5
D2018	0.2	0.4020151	0	1
D2019	0.2	0.4020151	0	1
D2020	0.2	0.4020151	0	1
D2021	0.2	0.4020151	0	1

The dividend policy with a projected Dividend Payout Ratio (DPR) has a mean value of 0.6154245 or around 61.54% of company profits allocated as dividends. Then the agency costs projected by free cash flow have a mean value of 0.0963319 or 9.63%, which means that the free cash flow in companies that are members of the IDX High Dividend 20 is minimal compared to the cash holdings used to fund capital expenditure of 90.37%. Furthermore, the mean dispersion of ownership value is 35.43% and insider ownership is 0.74%, which means that other ownership still dominates the ownership structure of a company at 63.83%. Then, looking at the assets growth aspect, the IDX High Dividend 20 index companies are considered to have relatively small growth because the average is only 9.85% of the previous year's total assets. Finally, for the R&D Investment variable, companies in this index are considered to be still relatively small in carrying out research and development because the average value is only around 0.87%.

Preliminary Test

This research has carried out model selection tests, namely the Chow test to test OLS VS FE, the Breusch and Pagan Lagrangian multiplier tests to test OLS VS RE, and the Hausman test to test RE VS FE.

Heteroscedasticity Diagnostic Test and Serial Correlation

The results of this study use the random effect (RE) model to test the heteroscedasticity of the diagnostic test and serial correlation presented.

Hypothesis testing

Table 5. Hypothesis Test Results

Independent Variable	Dependent Variable			
	DPR			
	Coef.	Std. Err.	z	P > |z|
Const	2.14052	0.6334779	3.38	0.001
FCF	0.9471566	0.3781239	2.50	0.012*
DISPER	-0.3119752	0.3355808	-0.93	0.353
INSIDER	-2.819033	1.25063	-2.25	0.024*
AG	0.0615495	0.1964803	0.31	0.754
RD	1.726126	1.322784	1.30	0.192
SIZE	-0.0031039	0.0116143	-0.27	0.789
DAR	-1.273193	0.4889365	-2.60	0.009*
DER	0.039185	0.0296624	1.32	0.186
CAPEX	-0.4893758	0.9639365	-0.51	0.612
ROA	-2.517383	0.9524594	-2.64	0.008*
ROE	0.520565	0.221848	2.35	0.019*
EBT	0.2798597	0.2728796	1.03	0.305
ETR	-0.1183071	0.4976055	-0.24	0.812
AGE	-0.1981096	0.1021448	-1.94	0.052
B SIZE	0.0273022	0.1360274	0.20	0.841
BINDEP	0.0890456	0.5175044	0.17	0.863
D2018	0.0176316	0.1204744	0.15	0.884
D2019	-0.1182412	0.0877162	-1.35	0.178
D2020	-0.1415984	0.0930358	-1.52	0.128
D2021	-0.0902837	0.0844211	-1.07	0.285
R-squared overall	0.4403			
Wald Chi2 (20)	166.01			
Prob > Chi2	0.0000*			
No. Observation	100			
*5% significance				

Hypothesis 1 Results

In testing hypothesis 1, we examine the effect of free cash flow (FCF) on dividend policy (DPR). The hypothesis test results table above shows that free cash flow obtained a z-value of 2.50 and a significance value of 0.012. This variable has a coefficient value of 0.9471566; for every one-unit increase in free cash flow, the company's dividend policy will also increase by 0.9471566. It can be concluded that H1 is accepted where free cash flow has a significant positive effect on dividend policy. Free cash flow is the amount of cash from operating activities with free status as long as capital expenditure has been budgeted. This free status makes free cash flow more flexible to distribute as cash dividends. Suppose the cash dividend distributed is more significant in value than the profit previously estimated to be received by shareholders. In that case, it will be directly proportional to the increase in the dividend payout ratio. So, this research supports the statement of Hantono et al. (2019), Sejati et al. (2020), and Tjhoa (2020), who states that the higher the free cash flow, the higher the dividends that will be distributed.

Hypothesis 2 Results

Based on the hypothesis testing table results, the dispersion of ownership (DISPER) variable has a z value of -0.93 and a significance value of 0.353. These findings conclude that H2 is rejected because, according to the research hypothesis test, a company's dividend policy is not influenced by how wide or narrow the ownership dispersion is. This is supported by the descriptive statistical picture, where the mean value for this variable is only around 35.43%. This figure is still relatively low, especially as each individual (community) has relatively tiny share ownership, namely less than 5%. With minimal share ownership, the community cannot influence decision-making regarding the nominal dividends to be distributed. The results of this research are by research conducted by Rahmawati (2011), Mangasih & Asandimitra (2017), and Julianti (2020), who concluded that people whose share ownership is below 5% do not have the power to change the company's dividend distribution decisions.

Hypothesis 3 Results

Next is the insider ownership variable (INSIDER) in the hypothesis test results, showing that the z value is -2.25 and the significance is 0.024. Based on the results of hypothesis testing, it is concluded that H3 is accepted because insider ownership can influence a company's dividend policy. Based on descriptive statistics, insider ownership (INSIDER) has an average ownership of 0.7%, and the maximum value is 12.40%. Even though it is still relatively small in terms of the company's overall ownership structure, every increase in insider ownership of 2.819033 can reduce the amount of dividends distributed by 2.819033. By agency theory, companies with high managerial (insider) ownership tend to distribute dividends in small amounts because management tends to like the profits generated to be retained temporarily to fund business development. Even though management has ownership rights to the company, they still think that investments for its sustainability will be more efficient in utilizing internal funds than external funds. So these results support research conducted by Shaheen & Ullah (2018), Dhuhri & Diantimala (2018), and Rahayu & Rusliati (2019), which states that the higher insider ownership, the lower the dividends that will be distributed.

Hypothesis 4 Results

The assets growth (AG) variable has a z-value of 0.31 and a significance value of 0.754. Because the significance value is above 0.05, H4 is rejected; in other words, asset growth has no impact on the dividend policy taken. Based on this research data, in 2021, TOWR recorded an asset growth of 92.2%; this is because, in 2020, its total assets amounted to IDR 34,249,550 to IDR 65,625,136 in 2021. TOWR also recorded a dividend payout ratio in the same year of 34.92%. Meanwhile, in 2021, WSBP recorded an asset growth of -19.87% from 2020; its assets amounted to IDR 8,589,025,755,237 to IDR 6,882077,282,159 in 2021. In 2021, WSBP also chose not to distribute dividends. This research supports the results of previous research conducted by Afriyeni & Deas (2019), Sejati et al. (2020), and Akbar et al. (2021), which states that dividend policy is not affected by asset growth.

Hypothesis 5 Results

The R&D Investment (RD) variable has a z value 1.30 with a significance of more than 0.05 or 0.192. The results conclude that H5 is rejected because the company's R&D Investment level is not a factor in determining dividend policy. Based on descriptive statistics according to this research, companies in the IDX High Dividend 20 index are still relatively low in conducting research and development because their value is only around 0.87%. In other words, in Indonesia, when carrying out R&D investment, they do not spend large amounts of money and do not even use company profits, which should be distributed as dividends, because using operational funds company is only

enough to make this investment. These results align with research conducted by Pramesti and Prajna (2022), which concluded that R&D Investment does not influence dividend policy.

CONCLUSION

This research concludes that the free cash flow variable has a significant positive effect on dividend policy, the insider ownership variable has a significant negative effect on dividend policy. In contrast, the dispersion of ownership, assets growth, and R&D investment variables do not affect dividend policy. Based on the results of this research, if you want to increase or maintain a high level of dividend yield and join the IDX High Dividend 20 index, you can increase the amount of free cash flow and reduce insider ownership, which can influence the dividend policy taken by a company.

Several implications can be applied by companies, both those that have joined the IDX High Dividend 20 stock index and those that have not yet joined, namely, in determining dividend policy in order to achieve the highest level of dividend yield, it is necessary to reduce some expenses in order to increase free cash flow which can later be used for distributing dividends. Second, in determining dividend policy, you must consider insider ownership within the company because the more insiders who own shares, the lower the dividends that will be distributed and vice versa. So, if there is insider ownership, the company must consider in detail the proportion of its interests so as not to decide on inappropriate policies. Finally, judging from the absence of influence of R&D investment on dividend policy, in this case, especially for companies that have been included in the IDX High Dividend 20 index, which, are large companies, only occasionally need to spend funds for research and development with a high nominal amount, so that internal funds the company can be used to pay dividends to shareholders. So with this, internal funds must be more precisely targeted, whether to finance company development or distribute them to shareholders as dividends.

The limitation of this research is that by using a sample of IDX High Dividend 20 companies, which were still relatively new and released in 2018, it is difficult to expand the period and references related to this stock index. So, the recommendation for further research is that in the sample of IDX High Dividend 20 companies, it is necessary to add a research period so that the influence between the independent variable and the dependent variable is more clearly depicted. Other variables need to be added, such as cash holding, investment opportunity set, lagged dividend, and so on, to increase the R-squared value to more than 50%.
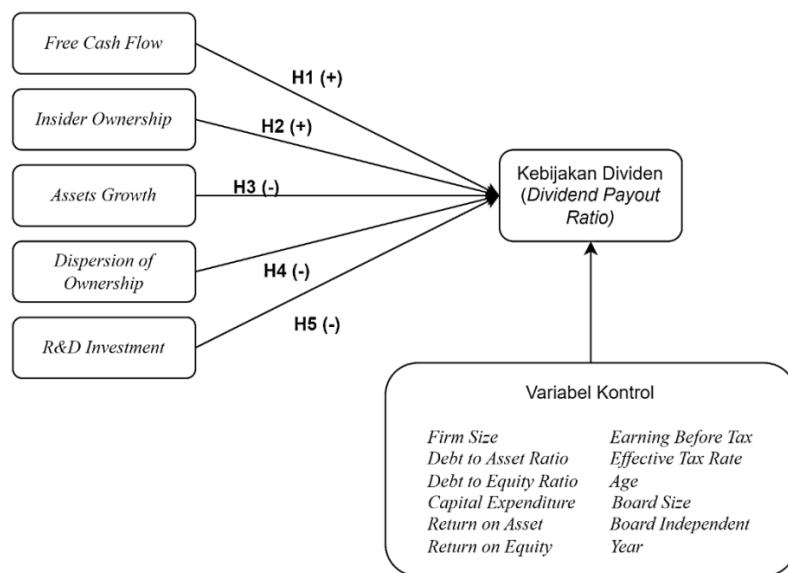
TABLE AND FIGURE

Figure 1. Framework of Thought
Table 1. List of 20 IDX High Dividend Companies that do not distribute dividends

Company Name	Year	Earnings per Share
Gudang Garam Tbk.	2019	5.655,00
Matahari Department Store Tbk.	2019	492,00
Waskita Beton Precast Tbk.	2021	79,27
Charoen Pokphan Indonesia Tbk.	2022	179,00

Source: www.idx.co.id

Table 2. Primary Evaluation Results of IDX High Dividend 20

Major Evaluation Period	Entry Company	Company Exit
January 2019	Bank Tabungan Negara (Persero) Tbk. Indah Kiat Pulp & Paper Tbk. Bukit Asam Tbk.	Puradelta Lestari Tbk. Mitra Pinasthika Mustika Tbk. Industri Jamu dan Farmasi Sido Tbk.
January 2020	Charoen Pokphand Indonesia Tbk Kalbe Farma Tbk. Perusahaan Gas Negara Tbk. Sarana Menara Nusantara Tbk.	Bank Tabungan Negara (Persero) Tbk. BPD Jawa Barat dan Banten Tbk. BPD Jawa Timur Tbk. Indah Kiat Pulp & Paper Tbk.
January 2021	Puradelta Lestari Tbk. Waskita Beton Precast Tbk.	Gudang Garam Tbk. Matahari Department Store Tbk.
January 2022	Adira Dinamika Multi Finance Tbk. Aneka Tambang Tbk. Hexindo Adiperkasa Tbk. Mitra Pinasthika Mustika Tbk.	Puradelta Lestari Tbk. Indocement Tunggal Prakarsa Tbk. Perusahaan Gas Negara Tbk. Waskita Beton Precast Tbk.

Table 3. Measurement of Control Variables

No.	Control Variables	Measurement
1	Firm Size	Natural logarithm of book value of total assets
2	Debt to Assets Ratio	The amount of debt divided by the book value of total assets
3	Debt to Equity Ratio	Total debt divided by equity
4	Capital Expenditure	Capital expenditures divided by the book value of total assets
5	Return on Asset	The ratio of profit after tax to the book value of total assets
6	Return on Equity	The ratio of profit after tax to equity
7	Earning Before Tax	Profit before tax divided by revenue
8	Effective Tax Rate	Income tax expense divided by profit before tax
9	Age	Natural logarithm "1 + age"
10	Board Size	Natural logarithm of the number of board directors
11	Board Independent	The number of independent directors is divided by the number of board directors.
12	Years	Dummy variables for each year of the research period, excluding one period.

Table 4. Descriptive statistics

Variable	Mean	Std. dev.	Min	Max
DPR	0.6189742	0.3377065	0	2.038835
FCF	0.0963319	0.1318635	- 0.4154528	0.4883748
DISPER	0.3543834	0.1559007	0.0211905	0.8252172
INSIDER	0.0074816	0.0272293	0	0.124034
AG	0.0985316	0.1708406	-0.198736	0.9220302

RD	0.0087679	0.0276217	0.0000186	0.1661084
SIZE	18.35586	3.962217	12.23658	30.93576
DAR	0. 530656	0.2539435	0.0415371	1.403734
DER	2.270405	2.680509	-3.476878	11.30431
CAPEX	0.0378155	0.0452376	0.0000562	0.2828114
ROA	0.1001394	0.1096105	-0.2823802	0.4542669
ROE	0.2305255	0.3372314	-1.502588	1.450882
EBT	0.1990971	0.1722024	-0.9597311	0.5354595
ETR	0.2183241	0.1117645	-0.4654592	0.4909211
AGE	3.731607	0.4814422	2.079442	4.49981
BSIZE	2.029867	0.3510405	1.098612	2.564949
BINDEP	0.0474168	0.0876168	0	0.5
D2018	0.2	0.4020151	0	1
D2019	0.2	0.4020151	0	1
D2020	0.2	0.4020151	0	1
D2021	0.2	0.4020151	0	1

Table 5. Hypothesis Test Results

Independent Variable	Dependent Variable			
	DPR			
	Coef.	Std. Err.	z	P > |z|
Const	2.14052	0.6334779	3.38	0.001
FCF	0.9471566	0.3781239	2.50	0.012*
DISPER	-0.3119752	0.3355808	-0.93	0.353
INSIDER	-2.819033	1.25063	-2.25	0.024*
AG	0.0615495	0.1964803	0.31	0.754
RD	1.726126	1.322784	1.30	0.192
SIZE	-0.0031039	0.0116143	-0.27	0.789
DAR	-1.273193	0.4889365	-2.60	0.009*
DER	0.039185	0.0296624	1.32	0.186
CAPEX	-0.4893758	0.9639365	-0.51	0.612
ROA	-2.517383	0.9524594	-2.64	0.008*
ROE	0.520565	0.221848	2.35	0.019*
EBT	0.2798597	0.2728796	1.03	0.305
ETR	-0.1183071	0.4976055	-0.24	0.812
AGE	-0.1981096	0.1021448	-1.94	0.052
B SIZE	0.0273022	0.1360274	0.20	0.841
BINDEP	0.0890456	0.5175044	0.17	0.863
D2018	0.0176316	0.1204744	0.15	0.884
D2019	-0.1182412	0.0877162	-1.35	0.178
D2020	-0.1415984	0.0930358	-1.52	0.128
D2021	-0.0902837	0.0844211	-1.07	0.285
R-squared overall	0.4403			
Wald Chi2 (20)	166.01			
Prob > Chi2	0.0000*			
No. Observation	100			
*5% significance				

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