PAPER NAME

5602-119754-1-ED.docx

AUTHOR

Riskin Hidayat

WORD COUNT

7928 Words

CHARACTER COUNT

42734 Characters

PAGE COUNT

14 Pages

FILE SIZE

276.6KB

SUBMISSION DATE

Jul 15, 2024 11:44 AM GMT+7

REPORT DATE

Jul 15, 2024 11:45 AM GMT+7

24% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 18% Internet database
- 8% Publications database
- Crossref database
- Crossref Posted Content database
- 18% Submitted Works database

Excluded from Similarity Report

- Bibliographic material
- Quoted material
- Small Matches (Less then 10 words)

Keunis
Vol. xx, No. x, xxx 20xx, Page. xxx-xxx

P-ISSN: 2302-9315
E-ISSN: 2714-7274
https://jurnal.polines.ac.id/index.php/keunis

THE ROLE OF RESOURCE EFFICIENCY IN MODERATING THE INFLUENCE OF FIRM FUNDAMENTALS ON DIVIDEND POLICY

RISKIN HIDAYAT[1]
ROSITA[2]
HERI SUSANTO[3]

[1] Universitas Sarjanawiyata Tamansiswa
Jl. Kusumanegara No. 157, Yogyakarta, Indonesia

[2] Universitas Islam Indonesia
Jl. Prawiro Kuat, Ngringin, Condongcatur, Depok Sleman, Yogyakarta, Indonesia

[3] Universitas Pembangunan Nasional Veteran Yogyakarta
Jl. Ring Road Utara No.104, Depok Sleman, Yogyakarta, Indonesia

Article History: (filled by editor)
Received :
Revised :
Accepted :
Published :

Corresponding author:
riskinhidayat@ustjogja.ac.id

Cite this article: (filled by editor)
Author, A., & Author, B. (20xx). Title. *Keunis*, x(x), xx-xx.

DOI: (filled by editor)
10.32497/keunis.vxxix.xxxx

Abstract: *This research aims to examine the role of resource efficiency as a measure of the activity ratio in moderating the influence of firm fundamentals as measured by profitability and debt policy. Resource efficiency in this research is grouped into two, namely efficient and inefficient companies. The population of this research are companies incorporated in the Kompas 100 Index listed on the Indonesia Stock Exchange. The sampling technique uses purposive sampling, with the criteria that companies indexed by Kompas 100 during the period 2018 - 2022 consistently and pay dividends. Based on the sampling results, there are 42 companies that meet the criteria, so the number of observations in this research is 210.*
The data analysis technique uses moderation regression. The results showed that profitability has a significant positive influence on dividend policy, but debt policy has a negative and insignificant influence on dividend policy. Resource efficiency proxied by 1-TATO is able to moderate the influence of profitability and debt policy with dividend policy. From the results of this research, it means that resource efficiency has an important role for companies in determining the firm's dividend policy.

Keywords : firm fundamentals, profitability, debt policy, dividend policy, resource efficiency, total assets turn over.

INTRODUCTION

Dividend policy is one of the most important corporate financial policies, because investors are waiting for the dividend policy decided by the firm. Dividend policy can provide a positive signal to investors if the company distributes a large amount of corporate profits. Dividend payout policy is one of the most debated topics in corporate finance and many academics have been trying to find the missing pieces in the dividend puzzle for more than half a century (Baker, 2009). Dividend policy is a guideline that a company has in terms of dividend payments. Dividend policy includes whether or not to pay, how much to pay, when to pay, and how often to pay. Dividend policy is an important commitment that signals the past performance and future prospects of the company. Therefore, dividend policy has been the target of research by researchers with the aim of further

understanding the determinants of corporate payout policy. Dividends or changes in dividends are an important source of information for management, shareholders, and potential investors (Barros, Guedes, Santos, & Sarmento, 2022).

Dividend policy is a firm management policy to determine the profit available to shareholders, which is paid to shareholders in the form of dividends or retained to finance future investments. If management decides to pay dividends, the amount of retained earnings decreases, so that internal funding sources will also decrease. However, if management decides not to pay dividends, it will increase funding from internal funding sources. Dividend payments will reduce the sources of funds controlled by managers, thereby reducing manager power and making dividend payments similar to capital market monitoring that occurs if the company obtains new capital, thereby reducing agency costs (Easterbrook, 1984; Wahjudi, 2020). According to Jensen and Meckling (1976) dividend payments are one of the bonding mechanisms aimed at limiting managers' opportunistic behavior so that firm value can increase.

Dividend policy has an influence on the firm's business risk and the growth of investors' dividend income. The firm will gain investors' trust by paying dividends because dividend payments are a signal that the firm's business is growing. A company with a good dividend policy will fulfill investors' desired requirements and create a corporate reputation. The firms that have a good reputation will easily raise capital through issuing more shares and increase their ability to increase profits in the future (Le Thi Huong Tram & Nga, 2023). Dividend policy according to E. F. Brigham and Ehrhardt (2012) thoroughly includes: 1) the amount of dividends to be paid; 2) the form of dividends (cash or non-cash); and 3) the pattern of dividends over time (constant or varying randomly). These three things must be considered by the company because dividends have the opportunity to affect firm value. This is in accordance with Lintner (1956) and Masry, Sakr, and Amer (2018) who state that managers set the amount of dividends very carefully in an effort to increase firm value because the level of dividends set will be a fixed burden for the company in the future. Dividends are an important factor in investor investment, so dividend policy is an important factor for companies to retain their shareholders (Arsyad, Haeruddin, Muslim, & Pelu, 2021).

The firm's dividend policy will be influenced by the firm's fundamental factors, especially the firm's profitability and debt policy. The profitability of the firm greatly affects the dividend policy, this is because the source of dividend funds paid is from the firm's profit. Consequently, if the firm pays dividends, the source of internal funds will decrease, because retained earnings are paid to pay dividends. But if the firm chooses to retain the profit earned, the ability to form internal funds will be greater (Eugene F Brigham & Houston, 2018). The results of research by Hung, Ha, and Binh (2018), Masry et al. (2018), Pattiruhu and Paais (2020), Wahyuni and Hafiz (2018), Pinto and Rastogi (2019), Hadian (2019), and Feizal, Sudjono, and Saluy (2021) show that profitability has a significant positive influence on dividend policy. Conversely, the results of research by Wahjudi (2020), Husain and Sunardi (2020), Qurochman (2022), Widyasti and Putri (2021) show that profitability has no significant influence on dividend policy.

Debt policy can also influence the firm's dividend policy, because if the firm has a high enough debt, the firm will first fulfill its obligation to pay debt rather than pay dividends (Abel, 2018). The firms are faced with a difficult choice between going into debt or paying dividends. Two policies that are equally important for firms to achieve organizational goals, but there is a trade off between the two, between debt policy and dividend policy. According to the trade off theory, the firms try to achieve a balance between the benefits and costs of debt. The firm with large debts tend to pay lower dividends to maintain sufficient cash to pay interest and debt installments (Haddad & Lotfaliei, 2019; Modigliani & Miller, 1963). The results of research by Wahjudi (2020), Hung et al. (2018), Abdullah (2021), Pinto and Rastogi (2019) show a negative effect of debt policy on dividends, while the results of Pattiruhu and Paais (2020), Hadian (2019), and Setyabudi (2021) show that debt policy has a positive effect on dividend policy.

The firms are not only enough to consider profitability and debt policy in making dividend policy, but there are other factors that are also important, namely resource efficiency, which in this research is proxied by total asset turnover (TATO) as a moderating variable and efficiency as a moderating variable is a novelty in this research. According to Hanafi (2018) TATO is one measure of the activity ratio as an indicator of the level of efficiency and utilization of firm resources. TATO is a ratio used to measure the turnover of all assets owned by the firm and measure how many sales are obtained from each rupiah of assets. TATO can also show the firm's effectiveness in generating sales by using its assets to make a profit. Research by Batubara, Susanty, Anggreani, and Valentine (2022), Sofyan (2023) and Purwanto, Sanjaya, and Kawisana (2021) shows that total asset

turnover has a significant positive effect on dividend policy, and research by Mohy-Ud-Din and Raza (2021) shows that resource efficiency is able to moderate the relationship between the good cororate governance index and dividend policy.

Based on the description above, considering the importance of the firm's dividend policy that is awaited by investors and the contradictory empirical research results, this research aims to prove the role of resource efficiency in moderating the influence of firm fundamentals as measured by profitability and debt policy on dividend policy. What is interesting in this research or as a novelty in this research is the inclusion of resource efficiency proxied by 1-TATO (total assets turn over) as a moderating variable by categorizing efficient and inefficient companies.

THEORETICAL FRAMEWORK AND HYPOTHESES

Agency Theory

Agency theory by Jensen and Meckling (1976) states that owners and management have different interests. The main principle of this theory states that there is a working relationship between the party who authorizes (principal), namely the owner and the party who receives the authority (agent), namely the manager. The existence of these various interests, each party seeks to increase profits for it self. Principal (owner) wants the maximum return and as soon as possible on the investment that has been made. Meanwhile, the agent (manager) wants his interests to be accommodated as much as possible for his performance.

Agency theory emphasizes the importance of firm ownership (shareholders) handing over the management of the firm to professionals (agents) who are more knowledgeable in running the daily business. This theory emerged after the phenomenon of the separation of firm ownership and management especially in modern firms (Eisenhardt, 1989; Jensen, 1986). The purpose of separating management from firm ownership is for firm owners to obtain the maximum possible profit at the most efficient cost possible by managing the firm by professionals. Professionals or agents carry out their duties in the interests of the firm and they have discretion in carrying out firm management. The greater the firm's profit, the greater the profit earned by the agent (Bendickson, Muldoon, Liguori, & Davis, 2016; Panda & Leepsa, 2017).

Agency theory assumes that all individuals act in their own interests. Shareholders as principals are assumed to be interested only in financial results in the form of increased dividends. Meanwhile, managers as agents are assumed to receive satisfaction in the form of high financial compensation and the conditions that accompany the relationship. Thus, the difference in interests between shareholders and managers lies in maximizing the benefits (utility) of shareholders (principal) with the constraints of benefits (utility) and incentives that will be received by managers (agent). It is this difference in interests that triggers conflicts between owners and managers (Fama & Jensen, 1983; Shogren, Wehmeyer, & Palmer, 2017). Agency theory is basically a model used to formulate problems in the form of conflicts between shareholders as firm owners (principals) and managers as parties appointed or authorized by shareholders (agents) to run the firm in accordance with their interests.

Trade-off Theory

The firm's debt policy and dividend policy are related and the firm should consider both policies properly. According to Modigliani and Miller (1963), Frank and Goyal (2009) trade-off theory states that firms should seek a balance between the tax benefits of debt and the costs of bankruptcy and other costs associated with the use of debt. Dividend policy, meanwhile, relates to a firm's decision on how to distribute earnings to shareholders in the form of dividends. As such, debt policy and dividend policy are part of a larger financial strategy that reflects a firm's efforts to strike an optimal balance between the tax benefits of debt, bankruptcy costs, investment needs, and shareholder satisfaction. Within the framework of trade-off theory, these two decisions should be considered simultaneously in order to achieve the long-term goals of the firm (Abel, 2018; Dierker, Lee, & Seo, 2019).

The following are some of the links between debt policy and dividend policy according to trade-off theory (Haddad & Lotfaliei, 2019; Modigliani & Miller, 1958): 1) Trade-off theory says that firms should seek an optimal capital structure, i.e. the best combination of debt and equity that optimizes firm value. In this case, debt policy plays an important role. Firms may choose to use more debt in their capital structure to take advantage of the tax benefits of debt interest, but they must also consider the bankruptcy risk associated with using too much debt; 2) A firm's decision on dividend policy can also affect debt policy. If a firm chooses to pay high dividends, it may reduce the internal funds available for investment, which may then increase the need for external funding, such

as debt. Conversely, if firms choose to retain more profits for investment, they may have less need for external debt; and 3) Sometimes, firms may choose between paying dividends or using the funds to repay debt. This decision can be influenced by market conditions, capital needs, and shareholder preferences. For example, if firms believe that they have profitable investment projects, they may prefer to retain funds for those investments rather than pay dividends or repay debt.

Relationship between Profitability and Dividend Policy

The firm's goal is to earn as much profit as possible to sustain its business. The firm's ability to earn profit is called profitability (Eugene F Brigham & Houston, 2018). In this research, profitability is proxied by return on assets (ROA). ROA is a profitability ratio used to measure the extent to which investment in assets that have been invested is able to provide benefits as expected (Hanafi, 2018). Profits that are eligible for distribution to shareholders are profits after the firm has fulfilled its fixed obligations, namely interest and taxes. Therefore, dividends taken from net profit will affect the dividend payout ratio (DPR). Each company must include or inform return on assets so that it can be used as a signal for investors in determining the dividends that the company will pay, in this case the investor's need for firm income or profit is an important thing for investors in investing their shares.

This is in accordance with agency theory, where managers are assigned by the owner for high profits so that they can pay dividends to firm owners or in other words, profits paid in the form of dividends by the firm to the principal can improve the welfare of the owner (Masry et al., 2018; Pattiruhu & Paais, 2020). The higher the return on assets, the better the firm's performance, because the level of profit shared in the form of dividends will be higher, this has an impact on investors because high dividends can be used as investor information to invest in the firm. The results of research by Hung et al. (2018), Wahyuni and Hafiz (2018), Pinto and Rastogi (2019), Hadian (2019), and Feizal et al. (2021) show that profitability has a significant positive influence on dividend policy. Based on the description above, the following hypothesis can be formulated.

H1: Profitability has a significant positive influence on dividend policy

Relationship between Debt Policy and Dividend Policy

Debt policy and dividend policy are two important policies for firms that have gone public, but both policies will cause a trade off. The firms with large debts tend to pay lower dividends to maintain sufficient cash to pay interest and debt installments (Haddad & Lotfaliei, 2019; Modigliani & Miller, 1958). In this research, debt policy is proxied by debt to equity ratio (DER), which is the ratio of debt to equity. DER is a ratio that measures how much the firm is financed by corporate debt compared to its own capital, where the greater the DER illustrates the unfavorable consequences for the firm (Hanafi, 2018). According to Van Horne and Wachowicz (2012), the debt to equity ratio is a ratio used to assess debt with equity. DER is sought by comparing all debt, including current debt with all equity.

If the debt burden is higher, the firm's ability to pay dividends will be lower, if the firm has a lot of debt, it will have an impact on the trust and purchase of shares in the firm, because if the firm has a lot of debt, prospective shareholders who want to invest in the firm also think twice, because the firm has a lot of debt (Hung et al., 2018). The results of research by Wahjudi (2020), Abdullah (2021), Pinto and Rastogi (2019) show that debt policy has a significant negative influence on dividend policy, so the hypothesis is as follows.

H2: Debt policy has a significant negative influence on dividend policy

Relationship between Resource Efficiency, Profitability, and Dividend Policy

Resource efficiency refers to the optimal use of firm resources to achieve firm goals, such as increasing net profit, growth, or long-term sustainability, especially in asset management with the aim of maximizing company value (Mohy-Ud-Din & Raza, 2021). Resource efficiency in this research is the activity ratio. The activity ratio, also known as the asset turnover ratio, is a financial metric used to evaluate how efficiently a firm uses its assets to generate revenue (Eugene F Brigham & Houston, 2018). One commonly used activity ratio is total assets turnover (TATO). According to Van Horne and Wachowicz (2012) TATO is a ratio that measures how well a firm uses its total assets to generate sales or revenue. TATO can measure the firm's ability to generate profits through total asset turnover which can affect sales results, can be used as a good signal for investors in providing dividends, the faster the turnover of total assets turnover can increase sales, so that the profits earned are high and dividends to investors are also high.

The magnitude of the TATO value will show assets that rotate faster in generating sales to earn profits. To measure resource efficiency in this research is 1-TATO, meaning that the firm will be able to perform resource efficiency on its assets if the value is close to 1. If the firm earns high profits and is strengthened by doing efficiency, then the firm will be able to pay high dividends as well. This is in accordance with the results of research by Batubara et al. (2022) shows that total asset turnover has a significant positive influence on dividend policy, and research by Mohy-Ud-Din and Raza (2021) shows that resource efficiency is able to moderate the relationship between the good cororate governance index and dividend policy. From this description, it can be said that resource efficiency proxied by 1-TATO will be able to moderate the influene of profitability on dividend policy, so the hypothesis is:

H3: Resource efficiency is able to moderate the influence of profitability on dividend policy

Relationship between Resource Efficiency, Debt Policy, and Dividend Policy

The relationship between debt policy and dividend policy that occurs trade off will be minimized or balanced if the firm can make efficiency in its resources by looking at the value of its total assets turnover. Total assets turnover provides insight into the efficiency of a firm in using its assets. It helps management and investors understand how well the firm manages its assets to generate revenue. A firm with a higher total assets turnover may be more efficient than its competitors in using assets to generate revenue. Changes in total assets turnover over time can provide insight into changes in operational efficiency or the firm's strategy in managing its assets (Miswanto & Oematan, 2020).

When there is a trade off between debt policy and dividend policy, resource efficiency proxied by total assets turnover will be able to be minimized by means of firms making resource efficiency, especially in their assets to increase sales which have an impact on firm profits. This can be done because when the firm has debt, the firm has an obligation to pay the principal with interest, so that it will reduce the profit earned by the firm. But if the firm can make efficiency in its resources, then the firm's expenses can be reduced, so that the firm's profit can be more than if it does not make efficiency, thus the firm is still able to pay dividends. This description is in accordance with the results of research by Sofyan (2023) and Purwanto et al. (2021) that total assets turnover has a significant effect on dividend policy. So the hypothesis in this research:

H4: Resource efficiency is able to moderate the influence of policy on dividend policy

Based on the theory, empirical research results and logical explanations above, the framework of this research can be described as Figure 1 below.

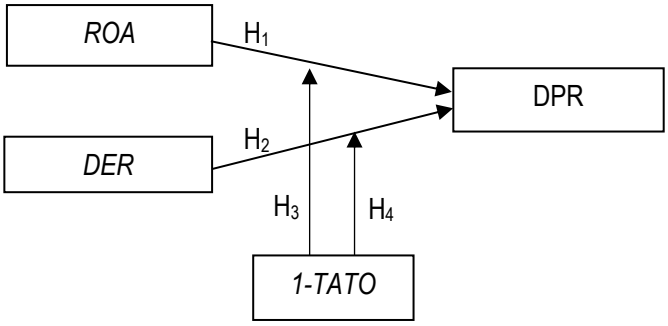

Figure 1. Framework of Thinking

RESEARCH METHODS

The population in this research are firms indexed by Kompas 100. The data collection technique uses the documentation method with documentary data types, where data is obtained from the official website of the Indonesia Stock Exchange. The sampling technique used is purposive sampling, with criteria: 1) The firms that are members of the Kompas 100 Index on the Indonesia Stock Exchange during the period 2018 - 2022 consistently; 2) Kompas 100 Index firms that paid dividends during the 2018-2022 period; and 3) Kompas 100 Index firms that have the required data in accordance with the variables studied. Based on the criteria set, a sample of 42 firms was obtained with a total of 210 observations. The sample selection process can be seen in Table 1 below.

Table 1. The Sample Selection Process

Description	Amount
The firms that are consistently listed in the Kompas 100 Index for the period 2018-2022	84
The firm does not consistently distribute dividends	(36)
Data outliers	(6)*
Number of firms in the sample	42
Number of observations during the observation year	210

Source: Data processed
Description: outlier data because the Z score value> 3, namely in the form of DER and 1-TATO data

The variables of this research are the fundamental factors of the firm proxied by profitability and debt policy as independent variables, dividend policy as the dependent variable and resource efficiency which is the activity ratio as a moderating variable. Profitability in this research is proxied by return on assets (ROA), namely the firm's ability to utilize its assets to generate net income. ROA measurement is adopted from research of Wahjudi (2020), Hidayat, Fauziah, and Sari (2021), Dewi and Hidayat (2018) with measurements:

$$ROA = \frac{Net\ income}{Total\ assets}$$

Debt policy variables proxied by debt to equity ratio (DER), namely the firm's ability to fulfill its obligations using equity. As researched by Shaferi, Wahyudi, Mawardi, Hidayat, and Puspitasari (2020), Zainuddin and Mananohas (2020), Hidayat, Wahyudi, Muharam, Shaferi, and Puspitasari (2019), and Hidayat, Wahyudi, and Muharam (2019) DER is measured by:

$$DER = \frac{Total\ Debt}{Total\ equity}$$

Dividend policy is proxied by dividend payout ratio (DPR), which is the firm's ability to pay dividends per share from earnings per share. The dividend policy proxied by DPR is adopted from the research of Zainuddin and Mananohas (2020), Sukmawardini and Ardiansari (2018), Anah, Fikra, and Widayati (2022), Husain and Sunardi (2020) with measurements of:

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

Measurement of resource efficiency is proxied by the activity ratio, namely total assets turnover (TATO), where the firm invests efficiently in assets to achieve high sales. The TATO measurement is adopted from the research of Arsyad et al. (2021), Batubara et al. (2022), and Purwanto et al. (2021) with the formula:

$$TATO = \frac{Sales}{Total\ assets}$$

Furthermore, to determine whether a firm is efficient or not, the 1-TATO measurement is used. It is said to be efficient if the value is close to 1 and if it is close to 0 (zero) then the more inefficient. To categorize efficient and inefficient firms, a dummy variable is used, value 1 for efficient firms and value 0 for inefficient firms. As a cut off for efficient and inefficient firms is the average value of 1-TATO from the entire sample. If the value of 1-TATO is greater than the average value of 1-TATO, it is categorized as efficient and given a score of 1, if the value of 1-TATO is less than the average value of 1-TATO, it is categorized as inefficient and given a score of 0.

The data analysis technique in this research uses moderation regression analysis, with the following model:

$$DPR = \alpha + \beta_1 ROA + \beta_2 DER + \beta_3 1\text{-}TATO + \beta_4 D + \beta_5 ROA*D + \beta_6 DER*D + e$$

From the moderation regression model above, it can be explained: DPR is dividend policy as the dependent variable, ROA is the company's profitability which is a fundamental measure of the company as an independent variable, DER is debt policy which is a fundamental measure of the company as an independent variable, 1-TATO is a proxy for resource efficiency as a moderating variable, D is a dummy variable of 1-TATO, ROA*D is the interaction between profitability and dummy variables, and DER*D is the interaction between profitability and dummy variables.

RESULTS AND DISCUSSION

Based on the sample selection results, the data of firms indexed by Kompas 100 that meet the requirements as shown in Table 1 above are 42 during the 2018-2022 period, so that the number of observations obtained is 210 samples. For the selection of efficient and inefficient samples with an average cut off 1-TATO of 0.899543, samples that fall into the efficient category where the value of 1-TATO> 0.899543 is 119 and those that are inefficient, namely those with a value of 1-TATO < 0.899543 are 91 samples. The statistical description of the research variables of the entire sample, samples that fall into the efficient and inefficient categories can be seen in Table 2 below.

Table 2. Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
All sample					
DPR	210	0,0005	0,0929	0,021313	0,0267991
ROA	210	0,0900	46,3000	11,162333	12,6074506
DER	210	0,2300	18,0600	4,565000	5,7007989
1-TATO	210	0,7049	0,9787	0,899543	0,0662544
Efficient					
DPR	119	0,0005	0,0929	0,025847	0,0318233
ROA	119	0,0900	39,4000	8,467059	10,5828457
DER	119	0,3900	15,5700	3,740588	5,0693718
1-TATO	119	0,8983	0,9787	0,946124	0,0278478
Inefficient					
DPR	91	0,0005	0,0515	0,015385	0,0178364
ROA	91	0,1500	46,3000	14,686923	14,5274122
DER	91	0,2300	18,0600	5,643077	6,4848174
1-TATO	91	0,7049	0,8934	0,838631	0,0533556

Source: Secondary data processed

Furthermore, because the data analysis technique used in this research is ordinary least square, this research conducted a classical assumption test. The results of classical assumption testing which includes normality test, autocorrelation test, multicollinearity test and heteroscedasticity test are described as follows. To test normality in this research using the One Sample Kolmogorov Smirnov Test. The normality test results can be seen in Table 3 below, where the Asymp sig value > 0.05 so it is concluded that the residual data in the regression model is normally distributed.

Table 3. Normality Test Results

	Unstandardized Residual
Kolmogorov-Smirnov Z	0,147
Asymp. Sig. (2-tailed)	0,518

Source: Secondary data processed

For the autocorrelation test using the Run Test with test results can be seen in Table 4 below. The results of the autocorrelation test show that the asymp sig value> 0.05 so it can be concluded that the regression model in this research does not occur autocorrelation.

Table 4. Autocorrelation Test Results

	Unstandardized Residual
Z	0,544
Asymp. Sig. (2-tailed)	0,151

Source: Secondary data processed

The next classic assumption test is the multicollinearity test. The results of the multicollinearity test as shown in Table 5 below, indicate that all independent variables do not occur multicollinearity because the Tolerence value> 0.10 and the VIF value < 10.

Table 5. Multicollinearity Test Results

Variabel	*Tolerance*	VIF	Descreption
ROA	0,485	2,122	no multicollinearity
DER	0,535	1,878	no multicollinearity
1-TATO	0,729	1,392	no multicollinearity

Source: Secondary data processed

The last classic assumption test is the heteorskedsticity test. The heteroscedasticity test in this research uses the Glejser test, where the test results in Table 6 show that all independent variables do not occur heteroscedasticity. This can be seen where the significance value of all independent variables > 0.05.

Table 6. Heteroscedasticity Test Results

Variabel	Sig	Descreption
ROA	0,930	no heteroscedasticity
DER	0,579	no heteroscedasticity
1-TATO	0,615	no heteroscedasticity

Source: Secondary data processed

The results of hypothesis testing with moderation regression can be seen in Table 7 below.

Table 7. Result of Research

Variable	B	Std. Error	t_{count}	Conclusion
Constant	0,161	0,135	1,188	-
ROA	0,011	0,005	2,370***	H_1 accepted
DER	-0,002	0,002	-1,123	H_2 rejected
1-TATO	0,217	0,059	3,643	-
D	-0,044	0,022	-2,044	-
ROA*D	0,015	0,005	2,876***	H_3 accepted
DER*D	-0,012	0,006	-1,844**	H_4 accepted

Source: Secondary data processed

Description:

*** significant at 1% (t_{table} = 2.34514)

** significant at 5% (t_{table} = 1.65251)

ROA is a proxy of the company's fundamentals which is a measure of profitability as an independent variable, DER is a proxy of the company's fundamentals which is a measure of debt policy as an independent variable, 1- TATO is a proxy of resource efficiency which is a measure of activity ratio as a moderating variable, D is a dummy variable from the 1-TATO moderation variable, ROA*D is the interaction between ROA and D as a moderating variable, DER*D is the interaction of DER with D as a moderating variable.

Based on the test results as in Table 3 above, it shows that profitability proxied by ROA has a significant positive influence on dividend policy, where the sign of the ROA coefficient is positive and significant at 1%. The results of this research indicate that the profits earned by the sample firms indexed in the Kompas 100 Index have a significant influence on the firm's ability to pay dividends to investors or shareholders. This is in accordance with the expectations of investors or owners, where the principals want their investment in the firm to

benefit in the form of dividends. This is in accordance with agency theory, where the principal gives a mandate to the manager to manage the firm well in order to achieve high financial performance so that it can prosper shareholders, namely by distributing dividends to shareholders. Agency conflicts between shareholders and management can affect dividend policy. Management who have an interest in increasing their personal wealth may tend to choose to pay high dividends rather than reinvesting the firm's profits for more long-term growth. However, when the firm is highly profitable, management tends to find it easier to pay dividends because they have more profits available to distribute without sacrificing future investments (Jensen & Meckling, 1976; Panda & Leepsa, 2017). This means that firms with greater profits will pay a greater portion of their income as dividends. The higher the profitability of the firm, the higher the cash flow in the company, and it is expected that the firm will pay higher dividends. High profitability indicates that the firm has strong and stable income, which gives investors confidence that the firm is able to pay dividends consistently. If the firm is able to manage all assets and capital in seeking profits from sales and management in the firm, high profits will have an impact on the distribution of high dividends to investors (Pattiruhu & Paais, 2020; Shogren et al., 2017). The results of this research support the research of Hung et al. (2018), Wahyuni and Hafiz (2018), Pinto and Rastogi (2019), Hadian (2019), Feizal et al. (2021) which show profitability has a significant positive influence on dividend policy. For more details, the significant positive relationship between profitability and dividend policy based on the processed data can be seen in Figure 1 below.

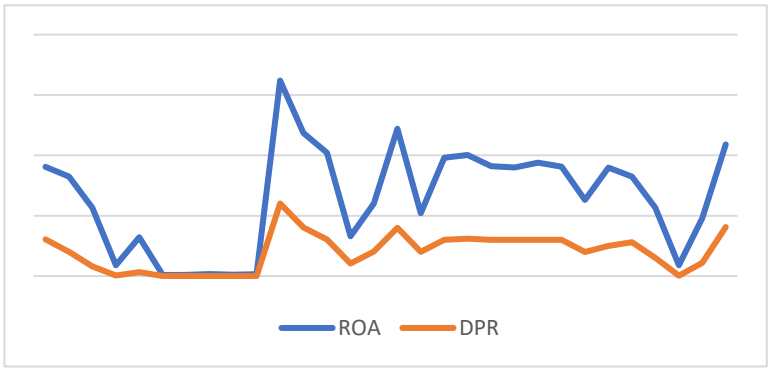

Figure 1. Significant Positive Relationship between ROA and DPR

The results of testing the second hypothesis in Table 7 show that debt policy has a negative and insignificant influence on dividend policy, where the coefficient sign is statistically negative and insignificant. The results of this research indicate that there is indeed a trade off between debt policy and dividend policy as indicated by the negative coefficient sign, but the influence is not significant. The firms indexed on Kompas 100 that are sampled are still trying to balance debt policy with dividend policy so that both policies can run well, on the one hand the firm will pay its debt obligations, but on the other hand it is also trying to set aside funds to pay dividends to shareholders. The results of this research are in accordance with the trade off theory, where the sample companies are faced with financial conditions that cannot choose one because both debt policy and dividend policy are equally important for the sustainability of the company's business, so the results of this research show a negative relationship, although not significant. The results of this research are in accordance with research from Hadian (2019), (Wahjudi, 2020), and (Purwanto et al., 2021) which shows that debt policy has an insignificant influence on dividend policy. Managers who have a personal interest in maintaining control of the company may tend to choose to use firm profits to increase the size of the firm or acquire new assets rather than pay dividends to shareholders (Abel, 2018; Feizal et al., 2021). The insignificant influence of debt policy on dividend policy reflects the complexity of corporate financial decision-making, where many factors can play a role in determining how best to use available financial resources. In this context, it is important to consider the various external and internal factors that can influence a firm's financial decisions (Haddad & Lotfaliei, 2019). For more details on the negative and insignificant relationship between debt policy (DER) and dividend policy (DPR) can be seen in Figure 2 below.

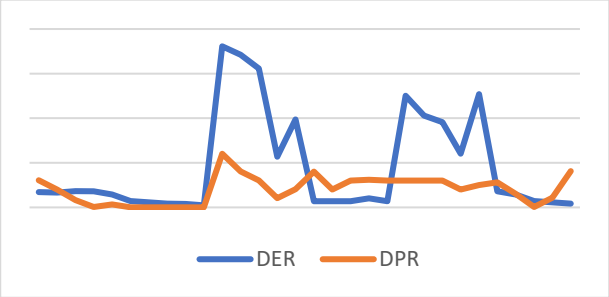

Figure 2. Negative and Insignificant Relationship between DER and DPR

The third hypothesis in this research is accepted, where the interaction coefficient between ROA and the dummy of resource efficiency as measured by 1-TATO is greater than the ROA coefficient with a positive sign. These results mean that resource efficiency is able to moderate the effect of profitability on dividend policy or it can be said that resource efficiency is able to strengthen the relationship between profitability and dividend policy. The results of this research also show that firms with high profitability tend to be sensitive to firms that carry out resource efficiency so that they are able to pay large dividends compared to inefficient firms. According to Ross, Westerfield, and Jordan (2019) firms that are efficient in the use of resources have a lower level of expenditure to achieve the same or higher income. The increased profitability resulting from this efficiency can create more cash available for distribution to shareholders in the form of dividends. Thus, high profitability due to resource efficiency can reinforce a large dividend policy. According to Brealey, Myers, and Allen (2017) firms that are efficient in their use of resources tend to have stable and reliable cash flows from their operations. This allows them to pay dividends consistently even in fluctuating economic situations. This consistency in dividend payments can increase investor confidence and encourage them to maintain their long-term investments, which in turn can strengthen the relationship between profitability and dividend policy. According to Jensen (1986), Berk and DeMarzo (2016). Efficiency in the use of resources can reduce potential agency conflicts between management and shareholders. Efficient management will be more likely to allocate resources with the long-term interests of shareholders in mind, including fair dividend payments. This can reduce shareholders' distrust of management and strengthen the link between profitability and dividend policy. Thus, resource efficiency not only increases firm profitability directly, but can also strengthen the relationship between profitability and dividend policy through increased investor confidence, the ability to pay dividends consistently, and reduced agency conflicts. This research is in accordance with research from Mohy-Ud-Din and Raza (2021) which shows that resource efficiency is able to moderate the relationship between the good cororate governance index and dividend policy and research by Batubara et al. (2022) which shows that total asset turnover has a significant positive influence on dividend policy.

The fourth test results also show that resource efficiency is able to moderate the effect of dividend policy on dividend policy, where the sign of the interaction coefficient of DER with the dummy of 1-TATO is negative and the value is small compared to the DER coefficient. The results of this research indicate the important role of resource efficiency because in the results of testing the second hypothesis, the dividend policy has a negative and insignificant influence on dividend policy. The results of this research also mean that firms with high debt tend to be inefficient in managing their resources so that their dividends are also low compared to fims that are efficient. This is in accordance with the trade off theory, where there is a trade off between debt policy and dividend policy, so firms must balance the two policies for good performance. The firms with large debts tend to pay lower dividends to maintain sufficient cash to pay interest and debt installments (Haddad & Lotfaliei, 2019; Modigliani & Miller, 1963). The firms that have high levels of debt tend to be inefficient in managing their resources as they are constrained by high interest expenses, liquidity limitations, financial uncertainty, and bankruptcy risk. Therefore, their dividend payments tend to be lower compared to firms that are efficient in managing their resources. The firms with high levels of debt tend to pay larger amounts of interest to creditors. This high interest may reduce the amount of cash available for investment in business operations or for dividend payments to shareholders. Therefore, firms with high debt levels may have lower dividend payments because most of their cash flow is used to pay interest (Eugene F Brigham & Houston, 2018; Ross et al., 2019).

CONCLUSION

Based on the results of hypothesis testing as discussed above, it can be concluded that the firm's fundamentals in this research, namely profitability, have a significant positive influence on dividend policy, but debt policy has a negative and insignificant influence on dividend policy in the sample firms indexed by Kompas 100. Profitability is the main fundamental for firms to pay dividends to shareholders. This research supports agency theory, where management, appointed by the principal, is given the task of achieving high profitability so that it can pay dividends to shareholders and the manager himself also benefits if profitability is high, he will get a bigger bonus or his compensation will increase. So it can be said that the interests of the agent and the principal can be fulfilled if the firm's profitability is high. This research also shows that there is an insignificant negative influence of debt policy on dividend policy, meaning that when the firm's debt is high, the dividends paid are low or very small, or it can also be interpreted that firms tend not to distribute dividends because the effect is not significant.

The results of this research indicate a significant role of resource efficiency as a moderating variable. Resource efficiency is able to moderate the influence of firm fundamentals, namely profitability and debt policy on dividend policy significantly. Resource efficiency is able to strengthen the effect of profitability on debt policy, meaning that the firms that have high profitability tend to make efficiency to pay dividends to shareholders compared to inefficient firms. This is in accordance with agency theory, where efficiency in the use of resources can reduce potential agency conflicts between management and shareholders. Efficient management will be more likely to allocate resources with the long-term interests of shareholders in mind, including fair dividend payments. The results of this research also show that resource efficiency is able to moderate the effect of debt policy on dividend policy. This is in accordance with the trade off theory, where firms that have high debt tend to be inefficient so they will pay low dividends. From the results of this research, future research should include mediating variables so that it can add a more comprehensive reference to financial studies and use a sample of firms listed on other indices or all firms listed on the Indonesia Stock Exchange.

REFERENCES

Abdullah, H. (2021). Profitability and leverage as determinants of dividend policy: Evidence of Turkish financial firms.

Abel, A. B. (2018). Optimal debt and profitability in the trade-off theory. *The Journal of Finance, 73*(1), 95-143.

Anah, S., Fikra, M., & Widayati, C. C. (2022). *The effect of profitability, dividend policy and debt policy on company value.* Paper presented at the 4th Social and Humanities Research Symposium (SoRes 2021).

Arsyad, M., Haeruddin, S. H., Muslim, M., & Pelu, M. F. A. (2021). The effect of activity ratios, liquidity, and profitability on the dividend payout ratio. *Indonesia Accounting Journal, 3*(1), 36-44.

Baker, H. K. (2009). *Dividends and dividend policy* (Vol. 1): John Wiley & Sons.

Barros, V., Guedes, M. J., Santos, P., & Sarmento, J. M. (2022). Does CEO turnover influence dividend policy? *Finance Research Letters, 44*, 102085.

Batubara, M., Susanty, M., Anggreani, E., & Valentine, F. (2022). The Effect of Return on Assets (Roa), Net Profit Margin (Npm), Total Asset Turnover (Tato), and Stock Price on Dividend Policy in Manufacturing Companies Listed oN IDX 2016-2020. *Jurnal Ekonomi, 11*(01), 515-521.

Bendickson, J., Muldoon, J., Liguori, E., & Davis, P. E. (2016). Agency theory: the times, they are a-changin'. *Management Decision, 54*(1), 174-193.

Berk, J. B., & DeMarzo, P. M. (2016). *Corporate finance*: Pearson Education.

Brealey, R., Myers, S., & Allen, F. (2017). Principles of Corporate Finance (12. Utgave). 2 Penn Plaza: New York: McGraw-Hill Education.

Brigham, E. F., & Ehrhardt, M. C. (2012). Fundamentals of Financial Management. In A. Uswara & B. Budiningsih (Eds.), *Marketing Clasic* (pp. 99-118). Yogyakarta: Cengage Learning.

Brigham, E. F., & Houston, J. F. (2018). *Fundamental of Financial Management*. New York: Cengage Learning.

Dewi, N. G., & Hidayat, R. (2018). Pengaruh Return On Asset Dan Pajak Terhadap Praktik Perataan Laba Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Akuntansi dan Bisnis, 4*(01).

Dierker, M., Lee, I., & Seo, S. W. (2019). Risk changes and external financing activities: Tests of the dynamic trade-off theory of capital structure. *Journal of Empirical Finance, 52*, 178-200.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American economic review, 74*(4), 650-659.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of management review, 14*(1), 57-74.

Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The journal of law and Economics, 26*(2), 327-349.

Feizal, D. A., Sudjono, S., & Saluy, A. B. (2021). The Effect of Profitability, Leverage and Liquidity on Dividend Policy for Construction Issuers in 2014-2019. *Dinasti International Journal of Economics, Finance & Accounting, 2*(2), 171-184.

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: which factors are reliably important? *Financial management, 38*(1), 1-37.

Haddad, K., & Lotfaliei, B. (2019). Trade-off theory and zero leverage. *Finance Research Letters, 31*, 165-170.

Hadian, N. (2019). The influence of profitability and leverage on dividend policy in the banking sector. *International Journal of Innovation, Creativity and Change, 6*(7), 118-129.

Hanafi, M. M. (2018). *Manajemen Keuangan*. Yogyakarta: BPFE.

Hidayat, R., Fauziah, U. L., & Sari, D. A. (2021). Pertumbuhan Aset, Profitabilitas dan Rasio Aktivitas dalam Memprediksi Beta Saham Perusahaan Manufaktur di Indonesia. *Inspirasi Ekonomi: Jurnal Ekonomi Manajemen, 3*(1), 12-23.

Hidayat, R., Wahyudi, S., & Muharam, H. (2019). Sensitivity of liquidity, investment decision, and financial constraints. *The Indonesian Capital Market Review, 10*(1), 5.

Hidayat, R., Wahyudi, S., Muharam, H., Shaferi, I., & Puspitasari, I. (2019). The improve level of firm value with liquidity, debt policy and investment in indonesian emerging market. *Revista ESPACIOS, 40*(40).

Hung, D. N., Ha, N. V., & Binh, D. T. (2018). Factors influencing the dividend policy of Vietnamese enterprises. *Asian Journal of Finance & Accounting, 10*(2), 16-29.

Husain, T., & Sunardi, N. (2020). Firm's Value Prediction Based on Profitability Ratios and Dividend Policy. *Finance & Economics Review, 2*(2), 13-26.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The 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.

Le Thi Huong Tram, N. T., & Nga, T. (2023). Propose Research Models and Hypotheses on the Impact of Current Ratio, Return on Assets, Total Assets Turn Over, Leverage Index, Total Accrual on Total Assets to Dividend Payout Ratio for Manufacturing Enterprises. *Journal of Economics, Finance and Management Studies, 06*(08), 4066-4073. doi: 10.47191/jefms/v6-i8-60, Impact Factor: 7.144

Lintner, J. (1956). *Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes*.

Masry, M., Sakr, A., & Amer, M. (2018). Factors Affecting Dividend Policy in an Emerging Capital Markets (ECM's) Country: Theoratical and Empirical Study. *International Journal of Economics, Finance and Management Sciences, 6*(4), 139-152.

Miswanto, M., & Oematan, D. S. (2020). Efficiency Of Using Asset And Financial Performance: The Case Of Indonesia Manufakcturing Companies. *MIX: Jurnal Ilmiah Manajemen, 10*(2), 314600.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review, 48*(3), 261-297.

Modigliani, F., & Miller, M. H. (1963). *Corporate Income Taxes and The Cost of Capital: A Correction*.

Mohy-Ud-Din, K., & Raza, S. A. (2021). Corporate governance mechanism, dividend policy, and firm efficiency. *KASBIT Business Journal, 14*(3), 81-100.

Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian journal of corporate governance, 10*(1), 74-95.

Pattiruhu, J. R., & Paais, M. (2020). Effect of liquidity, profitability, leverage, and firm size on dividend policy. *The Journal of Asian Finance, Economics and Business, 7*(10), 35-42.

Pinto, G., & Rastogi, S. (2019). Sectoral analysis of factors influencing dividend policy: Case of an emerging financial market. *Journal of risk and financial management, 12*(3), 110.

Purwanto, I., Sanjaya, I. K. P. W., & Kawisana, P. G. W. P. (2021). The effect of debt to equity ratio, total asset turnover, return on assets and return on equity on dividend policy in manufacturing companies. *Journal of Tourism Economics and Policy, 1*(2), 41-47.

Qurochman, A. N. (2022). The Influence of Profit Growth, Leverage, and Profitability on Dividend Policy in State-Owned Enterprises Listed on the Indonesia Stock Exchange. *Enrichment: Journal of Management, 12*(2), 1280-1286.

Ross, S., Westerfield, R., & Jordan, B. (2019). Essentials of Corporate Finance (Tenth, Vol. 148): McGraw-Hill Education.

Setyabudi, T. G. (2021). The Effect of Institutional Ownership, Leverage, and Profitability on Firm Value with Dividend Policy as an Intervening Variable. *Journal of Business and Management Review, 2*(7), 457-469.

Shaferi, I., Wahyudi, S., Mawardi, W., Hidayat, R., & Puspitasari, I. (2020). The manufacture and service companies differ leverage impact to financial performance. *International Journal of Financial Research, 11*(2), 281-286.

Shogren, K. A., Wehmeyer, M. L., & Palmer, S. B. (2017). Causal agency theory. *Development of self-determination through the life-course*, 55-67.

Sofyan, M. (2023). The Effect of Cash Ratio, Debt to Equity Ratio, Total Asset Turnover, Return on Asset and a Firm Size on Dividend Payout Ratio at Bank Persero Listed in IDX High Dividend 20 Period 2018-2021. *Sinergi International Journal of Management and Business, 1*(1), 17-43.

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.

Van Horne, J. C., & Wachowicz, J. M. (2012). *Fundamentals of Financial Management*: Pearson education.

Wahjudi, E. (2020). Factors affecting dividend policy in manufacturing companies in Indonesia Stock Exchange. *Journal of Management Development, 39*(1), 4-17.

Wahyuni, S. F., & Hafiz, M. S. (2018). Pengaruh CR, DER dan ROA terhadap DPR pada perusahaan manufaktur di BEI. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah), 1*(2), 25-42.

Widyasti, I., & Putri, I. (2021). The effect of profitability, liquidity, leverage, free cash flow, and good corporate governance on dividend policies (empirical study on manufacturing companies listed in indonesia stock exchange 2017-2019). *American Journal of Humanities and Social Sciences Research (AJHSSR), 5*(1), 269-278.

Zainuddin, Z., & Mananohas, O. A. (2020). The Effect of Debt Policies, Profitability, Managerial Ownership Structure, and Liquidity on Dividend Policy. *The Indonesian Journal of Accounting Research, 23*(3), 411-428.

24% Overall Similarity

Top sources found in the following databases:

- 18% Internet database
- Crossref database
- 18% Submitted Works database
- 8% Publications database
- Crossref Posted Content database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	**STIE Indonesia Banking School on 2022-07-21** Submitted works	2%
2	**ijser.org** Internet	1%
3	**ijstr.org** Internet	1%
4	**Victor Barros, Maria João Guedes, Pedro Santos, Joaquim Miranda Sar...** Crossref	<1%
5	**istinbath.or.id** Internet	<1%
6	**ijefm.co.in** Internet	<1%
7	**ejournal.undiksha.ac.id** Internet	<1%
8	**journal.hmjournals.com** Internet	<1%

9	researchgate.net Internet	<1%
10	Higher Education Commission Pakistan on 2022-07-15 Submitted works	<1%
11	Universitas Mataram on 2021-05-02 Submitted works	<1%
12	repository.unika.ac.id Internet	<1%
13	journal.universitasbumigora.ac.id Internet	<1%
14	ssbfnet.com Internet	<1%
15	"Competitive Position of the Most Admired Companies 2018 in Consu... Crossref	<1%
16	jurnal.unived.ac.id Internet	<1%
17	Universiti Teknologi MARA on 2021-02-03 Submitted works	<1%
18	publikasi.mercubuana.ac.id Internet	<1%
19	scirj.org Internet	<1%
20	Hidayati Nur Rochmah, Ardianto Ardianto. "Catering dividend: Dividend... Crossref	<1%

21	e-journal.unmas.ac.id Internet	<1%
22	icoen.org Internet	<1%
23	University of Hull on 2023-06-15 Submitted works	<1%
24	Higher Education Commission Pakistan on 2022-08-29 Submitted works	<1%
25	dlsu.edu.ph Internet	<1%
26	Eko Wahjudi. "Factors affecting dividend policy in manufacturing comp... Crossref	<1%
27	Universitas Semarang on 2023-12-29 Submitted works	<1%
28	repository.ub.ac.id Internet	<1%
29	Singapore Institute of Technology on 2023-08-08 Submitted works	<1%
30	University of Huddersfield on 2011-02-09 Submitted works	<1%
31	University of Huddersfield on 2018-09-07 Submitted works	<1%
32	giapjournals.com Internet	<1%

33	jp.feb.unsoed.ac.id Internet	<1%
34	scitepress.org Internet	<1%
35	Muhammad Arsyad, Sitti Hartati Haeruddin, Muslim Muslim, Muhamm... Crossref	<1%
36	Universitas Diponegoro on 2022-09-25 Submitted works	<1%
37	Universitas Jenderal Soedirman on 2023-08-02 Submitted works	<1%
38	profesionalmudacendekia.com Internet	<1%
39	repo.ppb.ac.id Internet	<1%
40	coursehero.com Internet	<1%
41	ijsshr.in Internet	<1%
42	ijbcnet.com Internet	<1%
43	researchpublish.com Internet	<1%
44	Foreign Trade University on 2022-06-02 Submitted works	<1%

45	London School of Commerce on 2014-11-06 Submitted works	<1%
46	Universitas Andalas on 2020-03-26 Submitted works	<1%
47	Universitas Hasanuddin on 2020-05-26 Submitted works	<1%
48	Universitas Ibn Khaldun on 2023-04-07 Submitted works	<1%
49	Universitas Trunojoyo on 2023-02-09 Submitted works	<1%
50	University of Hull on 2022-06-16 Submitted works	<1%
51	University of Wales, Lampeter on 2022-09-06 Submitted works	<1%
52	eduvest.greenvest.co.id Internet	<1%
53	Arab Academy for Science, Technology & Maritime Transport CAIRO o... Submitted works	<1%
54	Higher Education Commission Pakistan on 2014-03-06 Submitted works	<1%
55	Susanto Soekiman. "Strategic human resource management in digital ... Crossref	<1%
56	Universiti Sains Malaysia on 2013-11-26 Submitted works	<1%

57	ejournal.uin-suka.ac.id Internet	<1%
58	enrichment.iocspublisher.org Internet	<1%
59	essay.utwente.nl Internet	<1%
60	ijmra.in Internet	<1%
61	journal.sinergi.or.id Internet	<1%
62	jurnal.dim-unpas.web.id Internet	<1%
63	www-emerald-com-443.webvpn.sxu.edu.cn Internet	<1%
64	iiste.org Internet	<1%
65	zantworldpress.com Internet	<1%
66	Curtin University of Technology on 2014-10-23 Submitted works	<1%
67	Higher Education Commission Pakistan on 2024-07-10 Submitted works	<1%
68	Universitas 17 Agustus 1945 Surabaya on 2019-02-13 Submitted works	<1%

69	Universitas Jenderal Soedirman on 2020-10-25 Submitted works	<1%
70	ijbel.com Internet	<1%
71	journal.unpas.ac.id Internet	<1%
72	jurnal.arkainstitute.co.id Internet	<1%
73	jurnal.urindo.ac.id Internet	<1%
74	grafiati.com Internet	<1%