The Harmonius Dance between Payout Policy and Peer Influence

Bhenu Artha[1], Edy Suandi Hamid[2], Zaenal Arifin[3], Sutrisno[4]

Abstract

Dividends are important for investors because there is a tendency that investors expect large dividend payments as a source of income. Dividends for companies are also important because they can reflect the value of the company. Dividends are generally given annually, if the company makes a profit from production. Peer effect is a condition where companies that pay dividends after other companies pay them earlier will be affected by their dividend policy, in this case the amount of dividends to be distributed may change. This can happen because the company will try to maintain the amount of dividends to show the company's performance, when compared to other companies that have paid dividends earlier.

Keywords: *Harmonius Dance, dividends.*

Introduction

Dividends are important for investors because there is a tendency that investors expect large dividend payments as a source of income. Dividends for companies are also important because they can reflect the value of the company. Dividends are generally given annually, if the company makes a profit from production. Peer effect is a condition where companies that pay dividends after other companies pay them earlier will be affected by their dividend policy, in this case the amount of dividends to be distributed may change. This can happen because the company will try to maintain the amount of dividends to show the company's performance, when compared to other companies that have paid dividends earlier.

The effect of peer effect on corporate dividend decisions was studied by Grennan (2018), Adhikari and Agrawal (2018) and Yan and Zhu (2020). Grennan (2018) in his research shows that a company's dividend policy is influenced by the dividends of peer firms in the same industry, where the results show that the peer effect on dividends is statistically significant in the case of dividend increases, where the peer effect will affect the company's dividend decisions by shortening their adjustment period or increasing their target payout ratio. The effect of peer effect on dividend policy in the industry is statistically significant in the Chinese stock market (Yan and Zhu, 2020). Research on the peer effect is very rare, so further research is needed to add references on this matter, on how a company's dividend affects other companies that pay dividends afterwards.

[1] University of Widya Mataram
  Ph.D. student at Islamic University of Indonesia, bhenu_artha@widyamataram.ac.id
[2] University of Widya Mataram
  Islamic University of Indonesia
[3] Islamic University of Indonesia
[4] Islamic University of Indonesia

The purpose of this study is to see how the peer effect differs based on the company sector, which has not been discussed by Grennan (2018) and Yan and Zhu (2020). The peer effect on each company sector is something that has never been studied before.

Literature Review

1.   Signaling Theory

Signaling theory assumes that there is no conflict of interest between different groups of shareholders, and in general, that management acts well on behalf of shareholders, but, as company insiders, managers are more knowledgeable about company operations than shareholders, therefore, management can use dividend policy as a communication tool to convey favourable information about company profitability to market participants (Muller, 2013).

This dividend signal is costly, as it cannot be easily replicated by firms with lower profitability, and thus is a credible signal of profitability (Muller, 2013). Spence (1973) suggests that low ability workers may also engage in education, but the associated signalling costs are greater for them, as they have to invest more time and effort to improve their level of education, thus leading to greater opportunity costs, a sufficiently high signalling cost is required to ensure the credibility of the education signal, hence employers can then infer the ability level of workers from a high level of education.

Bhattacharya (1979) suggests that signalling costs are caused by the tax difference between dividends and capital gains, in addition, if a firm's realised cash flow is insufficient to meet the pre-determined dividend payout level, the firm must incur additional costs to make up the shortfall and pay the promised dividend, and this costly financing prevents firms with unprofitable investments from sending "false" dividend signals. John and Williams (1985) point out that investors face a tax disadvantage when receiving dividends, as these are taxed at personal tax rates, in contrast to tax-free capital gains.

Miller and Rock (1985) proposed a dividend signalling model in which managers convey private information about current and future earnings through the level of dividend payments, and managers have complete knowledge of the current level of earnings, while shareholders do not observe the random component of current earnings.

2.   Dividend Persistence

Dividend persistence is a dividend that is distributed regularly (Sirait and Siregar, 2014). Dividend persistence is directly related to the definition of the firm's earnings distribution policy, affecting dividend decisions such as "if they should pay", "how much they should pay" and "how they should pay" (De Sousa, Martins, Girao, and Nakamura, 2018). Dividend persistence ensures the firm's reputation for moderating shareholder wealth, where it is assumed that dividend payments substitute good protection for them (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2000). Suspension or reduction of dividend payments will lead to dissatisfaction among investors, who do not respond favourably to dividend cuts, such circumstances may lead firm management to smooth dividends during the period, with respect to yield, making them more persistent (Chan, Powell, Shi, and Smith, 2016).

Rahman, Shamsuddin, and Lee (2019) in their research show that the predictive ability of dividend yield is inversely proportional to its persistence. Mulchadani, Mulchadani, and Wasan (2019) suggest that dividend persistence provides information about earnings quality. Chan et al (2016) in their research show how the spurious regression problem caused by dividend persistence is exacerbated by the spurious correlation problem when the dependent and independent variables in the dividend behaviour regression are ratios consisting of common component variables. The use of simulation procedures to account

for such problems was put forward by Chan et al (2016) with the findings implying that great care should be taken when using ratios as predictors or explanatory variables in time series regressions.

3.   Peer influence

Peer influence or peer effect is a condition where companies that pay dividends after other companies pay them earlier will be affected by their dividend policy, in this case the amount of dividends to be distributed may change. This can happen because the company will try to maintain the amount of dividends to show the company's performance, when compared to other companies that have paid dividends earlier.

Grennan (2018) in his research shows that dividend policy has a peer effect, where the peer effect affects the increase but not the decrease, and the announcement results show that investors anticipate some of the consequences of the peer effect. Adhikari and Agrawal (2018) found in their research that dividend payout and share buyback policies are significantly influenced by the policies of their industry peers, and overall, peer influence on dividends, and to a lesser extent, on buybacks, is consistent with competition-based imitation theory, which states that firms imitate the actions of peers to maintain their competitive balance. Yan and Zhu (2020) proved in their study that peer influence is important in firms' dividend decisions, and the extent to which peer influence affects each firm differs depending on the competitiveness of the industry and the ratio of state-owned shares in the firm.

Hypothesis Development

The behaviour of a group will be influenced by other groups that are similar to it (Manski, 1993), in this case the company will be influenced by other companies in the same industry group. Peer effect can affect dividend policy because companies will try to maintain the amount of dividends to show the company's performance, when compared to other companies that have paid dividends earlier. The effect of peer effect on corporate dividend decisions was studied by Grennan (2018) and Adhikari and Agrawal (2018) and Yan and Zhu (2020). Grennan (2018) in his research shows that a company's dividend policy is influenced by the dividends of peer firms in the same industry, where the results show that the peer effect on dividends is statistically significant in the case of dividend increases, where the peer effect will affect the company's dividend decisions by shortening their adjustment period or increasing their target payout ratio. The effect of peer effect on dividend policy in the industry is statistically significant in the Chinese stock market (Yan and Zhu, 2020). The peer effect affects dividends positively because it helps increase corporate dividends.

The peer effect is measured by constructing a time-series of peer firms' dividend decisions and counting peer firms that increase dividend payouts within 180 days prior to the firm's declaration date. When no dividend declaration is made by a firm, the peer firms that increased dividend payouts within 180 days prior to the last day of the reference period are used. Given that a dividend change must be approved by the board of directors, the 180-day period ensures that at least one board meeting occurs after the dividend change. The company's own dividend changes are excluded from the peer group to ensure that there is no mechanical link between dividend payments and peer influence. In the rare case that a company increases its dividend multiple times in the period, the date of the first dividend declaration is used to construct the peer effect variable.

H1: There is a peer effect in dividend policy in all companies

H2: There is a peer effect in dividend policy for companies in the same sector

Methods

The population in this study are all companies listed on the Indonesia Stock Exchange (IDX) for the period 2008 to 2020. The sample in this study are companies listed on the IDX that include nominal dividends distributed in the annual report. There are 322 samples that match to this criteria.

Dividend policy in this study is measured by the dividend payout ratio (DPR) for the financial statements of year t, dividend per share (DPS) which is the nominal dividend distributed for the financial statements of year t, and DPR+1 which is the dividend payout ratio for the financial statements of year t+1. The dividend payout ratio formula is as follows:

$$DPR = \frac{distributed\ actual\ dividend}{net\ income}$$

$$DPS = \frac{distributed\ actual\ dividend}{total\ number\ of\ shares}$$

$$DPR_{t+1} = \frac{distributed\ actual\ dividend_{t+1}}{net\ income_{t+1}}$$

In this study, the measurement of DPRt+1 as a proxy for dividend policy measurement is introduced, which is novel because it has never been done before, where what is measured is the dividend payout ratio in year t+1.

Peer effect is a condition where companies that pay dividends after other companies pay them earlier, especially those in the same sector, will be affected by their dividend policy, in this case the amount of dividends to be distributed may change. This happens because the company will try to maintain the amount of dividends to show the company's performance. The peer effect is measured by constructing a time-series of peer firms' dividend decisions and counting peer firms that increase dividend payments within 180 days prior to the firm's declaration date. When no dividend declaration is made by the firm, the peer firms that increase dividend payout within 180 days before the last day of the reference period are used. Given that a dividend change must be approved by the board of directors, the 180-day period ensures that at least one board meeting occurs after the dividend change. The company's own dividend changes are excluded from the peer group to ensure that there is no mechanical link between dividend payments and peer influence. In the rare case that a company increases its dividend multiple times in the period, the date of the first dividend declaration is used to construct the peer effect variable. The peer effect testing formula is as follows:

$$DPR_{i,j,t} = \alpha + \beta DPR_{i,-j,t-1} + \varepsilon_{i,j,t}$$

In the formula above, i, j, and t represent industry, firm, and year. -j represents peer firms (except company j). DPRi,j,t is the dividend payout ratio of the company, while DPRi,-j,t-1 represents the dividend payout ratio of peer firms (except company j). This second group test has two analyses, namely testing all companies and companies in the same group. There are nine industry sectors tested, namely agriculture; mining; basic industry and chemicals; miscellaneous industries; consumer goods industry; property, real estate, and building construction; infrastructure, utilities, and transportation; finance; and trade, services, and investment. Testing will be carried out twice, namely testing each sector, and all sectors are tested at once.

Result and Discussion

The analysis consists of three models, namely dividend policy measured by dividend payout ratio (DPR), dividend per share (DPS), and dividend payout ratio year+1 (DPR+1). Results of the analysis are as follows:

Table 1. Chow Test for Peer Effect All Sectors

Effect Test	Statistic	d.f.	Prob.
Cross-section F	0.742643	(19,108)	0.7672
Cross-section Chi Square	15.840281	19	0.6679

Source: primary data processed, 2023

Table 2. Peer Effect All Sectors

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.215047	16.54878	0.254704	0.7994
DIV_ALL	0.0114604	0.087585	1.308486	0.1931

Source: primary data processed, 2023

The Chow test in Table 1 is used to test the best model between Common Effect and Fixed Effect. The results show that the cross-section F and cross-section Chi-square numbers are greater than alpha 0.05, so the most appropriate analysis used is the Common Effect Model.

The analysis results in Table 2 show that the prob value is 0.1931 which means that there is no peer effect for all companies. An increase in the dividend of one company is not followed by an increase in dividends by other companies. The analysis above shows that hypothesis H1 which states that there is a peer effect in dividend policy for all companies is not proven.

Table 3. Chow Test for Peer Effect Same Sectors

Effect Test	Statistic	d.f.	Prob.
Cross-section F	8.758324	(13,78)	0.0000
Cross-section Chi Square	83.704447	13	0.0000

Source: primary data processed, 2023

Table 4. Hausman Test for Peer Effect Same Sectors

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	23.117140	1	0.0000

Source: primary data processed, 2023

Table 5. Lagrange Multiplier Test for Peer Effect Same Sectors

	Cross-section	Test Hypothesis Time	Both
Breusch-Pagan	1.628153 (0.2020)	0.002950 (0.9567)	1.631103 (0.2016)

Source: primary data processed, 2023

Table 6. Peer Effect Same Sectors

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.025899	13.31183	0.302430	0.7630
DIV_SECTOR	0.234359	0.113575	2.063467	0.0419

Source: primary data processed, 2023

The Chow test results in Table 4.3 show that the cross-section F and cross-section Chi-square are smaller than alpha 0.05, therefore the most appropriate analysis used is the Fixed Effect Model. The analysis continued with the Hausman Test to test the best model between Fixed Effect and Random Effect.

The Hausman test results in Table 4.4 show that the prob number is smaller than alpha 0.05, so the most appropriate analysis used is the Random Effect Model. The analysis continued with the Lagrange Multiplier Test to test the best model between Random Effect and Common Effect.

The p value shown in Breusch-Pagan in Table 4.5 is 0.2020, greater than 0.05, which means that the best estimation model is Common Effect.

The analysis results in Table 4.6 show that the prob value is 0.0419, which means that there is a peer effect in each sector. An increase in the dividend of a company in a particular industry sector tends to be followed by an increase in dividends by companies in that industry sector. The analysis above shows that hypothesis H2 which states that there is a peer effect in dividend policy for companies in the same sector is proven.

The analysis shows that there is no peer effect for all industries. An increase in dividends by one firm is not followed by an increase in dividends by other firms. A firm's decision on dividends is based on management policy and strategy. Some companies may focus more on regular dividend payments to attract investors seeking a steady income, while other companies may prefer to keep profits for expansion or acquisition of new businesses. These decisions are based on the needs and objectives of the company, not peer effects. The financial condition of individual companies can vary widely, even within the same industry. Companies that are more financially stable may be better able to pay dividends, while companies that need additional funds to address problems or expansion may be more likely to retain profits. Dominant shareholders or certain institutions may influence a company's dividend policy more than the peer effect. Large shareholders who want reinvestment or growth may encourage companies to retain earnings rather than pay dividends. Wang et al (2021) revealed that peers do not significantly affect the level of dividends to be paid. Grennan (2018) in his research shows that the peer effect has an effect on increasing but not decreasing, and the announcement results show that investors anticipate some of the consequences of the peer effect.

Further analysis shows that there is a peer effect for companies in the same sector. An increase in the dividend of a company in a particular industry tends to be followed by an increase in dividends by companies in that industry. Each industry has unique characteristics, including risks, business cycles, and growth opportunities. Some industries may be more stable and allow companies to allocate more funds to dividend payments, while other industries may rely more on reinvestment for future growth. Therefore, the peer effect has an impact on every industry sector. Companies within the same industry compete with each other to attract investors and obtain external funds. When one company in the industry increases or decreases their dividend, other companies may respond in a similar manner to remain effectively competitive. If another company is paying out higher dividends, other companies may feel the need to follow this trend so as not to lose investors. The actions of companies in a particular industry can affect the overall market sentiment towards that industry. If several companies within an industry announce dividend increases or good performance, this can send a positive signal to the market about the health and growth potential of that industry. Conversely, poor performance or unfavourable dividend policies of some companies in the industry may send a negative signal and reduce investors' interest in investing in the industry. Investors and market analysts often make comparisons between companies in the same industry. When considering investments, they tend to compare performance and dividend policies between companies in the same industry. If a company performs well and pays high dividends, investors may be more interested in investing in similar companies that also have favourable performance and dividend policies.

Adhikari and Agrawal (2018) found in their research that dividend payout and share repurchase policies are significantly influenced by the industry policies of their peers, and

overall, peer influence on dividends, and to a smaller extent, on repurchases, is consistent with competition-based imitation theory, which states that firms imitate the actions of peers to maintain their competitive balance. Yan and Zhu (2020) proved in their study that peer influence is important in firms' dividend decisions, and the extent to which peer influence affects each firm differs depending on the competitiveness of the industry and the ratio of state-owned shares in the firm.

Conclusion

Peer effect does not occur in dividend policy in all companies. This is not in accordance with the hypothesis which states that there is a peer effect in dividend policy in all companies. This is because the company's decision on dividends is based on management policies and strategies. Some companies may focus more on regular dividend payments to attract investors who are looking for fixed income, while other companies may prefer to keep profits for expansion or acquisition of new businesses. These decisions are based on the needs and objectives of the company, not because of peer effects.

Peer effect occurs in dividend policy for companies in the same sector. This is in accordance with the hypothesis stating that there is a peer effect in dividend policy for companies in the same sector. Companies in the same industry compete with each other to attract investors and obtain external funds. When one of the companies in the industry increases or decreases their dividends, other companies may respond in a similar way to remain effectively competitive.

investors can use the results of this study as a consideration in investing especially in Indonesia. For future researchers, they can conduct research on how the decision of the General Meeting of Shareholders (GMS) determines dividend policy. Qualitative research is needed on the parties involved in the company's GMS.

References

Adhikari, B. K., and Agrawal, A., (2018), "Peer Influence on Payout Policies", Journal of Corporate Finance, 1-57.

Bhattacharya, S., (1979), "Imperfect Information, Dividend Policy, and The Bird in The Hand Fallacy", The Bell Journal of Economics, 10(1): 259-270.

Chan, K. F., Powell, J. G., Shi, J., and Smith, T. (2016), "Dividend Persistence and Dividend Behavior", Accounting & Finance, 58(1): 127-147.

De Sousa, R. A. M., Martins, O. S., Girao, L. F. A. P., and Nakamura, W. T., (2018), "Dividends Persistence and Earnings Management in Latin America Capital Markets", XVIII USP International Conference in Accounting.

Grennan, J., (2018), "Dividend Payments as a Response to Peer Influence", Journal of Financial Economics, 1-51.

John, K., and Williams, J., (1985), "Dividends, Dilutions, and Taxes: A Signalling Equilibrium", The Journal of Finance, 40(4): 1053-1070.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. W., (2000), "Agency Problems and Dividend Policies Around the World", The Journal of Finance, 55(1): 1-33.

Manski, C. F., (1993), "Identification of Endogenous Social Effects: The Reflection Problem", The Review of Economic Studies, 60(3): 531–542.

Miller, M. H., dan Rock, K., (1985), "Dividend Policy Under Asymmetric Information", Journal of Finance, 40(4): 1031–1051.

Mulchadani, K., Mulchadani, K., dan Wasan, P., (2019), "Dividends and Earnings Quality: Evidence from India", IIMB Management Review, 32: 166-176.

Muller, C., (2013), "Confirming Dividend Changes and the Non-Monotonic Investor Revision of Earnings Persistence", Springer Gabler.

Rahman, M. L., Shamsuddin, A., dan Lee, D., (2019), "Predictive Power of Dividend Yields and Interest Rates for Stock Returns in South Asia: Evidence from a Bias-Corrected Estimator", International Review of Economic & Finance, 62: 267-286.

Sirait, F., dan Siregar, S. V., (2014), "Dividend Payment and Earnings Quality: Evidence from Indonesia", International Journal of Accounting & Information Management, 22(2): 103–117.

Spence, M., (1973), "Job Market Signaling", The Quarterly Journal of Economics, 87(3): 355-374.

Wang, X., Li, F., dan Salem, M. (2021), "The influence of financial constraint on peer influence of cash dividend decision – Evidence from China", Applied Mathematics and Nonlinear Sciences, 6(2): 309-322.

Yan, Q., dan Zhu, H., (2020), "Peer Influence on Dividend Policy: Evidence from the Chinese Stock Market", Economic Letters, 192: 1-3.