Share Price Volatility and Dividend Policy During the Pandemic of Covid-19

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ABSTRACT

This study is to examine the relation between dividend policy and share price changes in the Malaysian share market during the dramatic pandemic of Covid-19. Multiple regression analysis is used to investigate the relationship between the share price volatility and the determinants of dividend policy namely the dividend yield and dividend payout. The findings show that there is a negative relationship between dividend yield and share price volatility and a positive relationship between dividend payout and share price volatility. The study supports evidence in the pieces of literature and dividend relevance theory that conclude dividend yield is one of the important variables to determine the share price volatility. The findings suggest that investors need to take into consideration both dividend yield and dividend payout before investment decision-making, and the top management of companies needs to be careful in formulating dividend policy decisions.

Keywords: *Share Price Volatility, Dividend Yield, Dividend Pay-Out, COVID-19*

INTRODUCTION

The theory of dividend and its effect on the value of the company is perhaps one of the most puzzling theories in the field of finance although there were many studies previously conducted. The dramatic pandemic of Covid 19 is having a huge impact on the real economic activity around the world, including Malaysia. Notably, the spread of Covid-19 has created a temporary shortfall in revenues for companies in numerous industries (Song, Yong, and Lee, 2021). In the early period of the pandemic, the Government of Malaysia, have announced both full and partial lockdown of the economy. Many businesses are suffering an

increase in the company business risks and therefore reduction in their earnings (Cejnek, Randl, and Zechner, 2021; and Song, Yong, and Lee, 2021).

Stanley Black (2021) states that during the pandemic Covid-19, the aggregate dividend payouts fell meaningfully in the global market, comparing the first three quarters of 2020 to the same time in 2019. In his report, he concluded that the adverse effect of Covid-19 documents a drop in the value of the near-term dividend, and increases the company's debt ratio, given the exposure of their operations to Covid-19. Evidence also shows that companies in Europe and the United States cut their dividends by at least 50% are found to experience a substantial increase in their exposure to market risk. (Cejnek, Randl, and Zechner, 2021). In the United States alone, the companies undertook a dramatic approach by cutting the dividend payouts, notably, out of 1,400 companies, about 213 entities cut dividends and 93 firms omitted dividends in the second quarter of 2020 (Krieger, Mauck, and Pruitt, 2021). In Malaysia, TheEdge Malaysia Weekly (2021) reported that only 96 companies listed on Bursa Malaysia with a market capitalization of at least Rm500 million managed to secure a gross dividend of 3% and more.

From the investor's point of view, dividend pay-outs are one of their reliable sources of income and the notion of pay-outs are very closely related to the company's earnings. Those investors who expect to receive consistent dividend income may have been surprised to see lower-than-expected dividend pay-out following the pandemics, due to stock price volatility. The volatility of share prices is viewed as a systemic risk by investors (Guo, 2002), and as risk-averse rationale investors, the volatility of their investments is crucial as it indicates the level of risks they are exposed to.

The significance of the pandemic allows us to shed the light on the relationship between the share price volatility and the dividend policy in the Malaysian market. The results indicate that there is a negative relationship between dividend yield and share price volatility, and a positive relationship between dividend payout and share price volatility. To the best of the authors' knowledge, there is no evidence regarding this issue available in the pieces of literature thus far.

LITERATURE REVIEW

A dividend policy is a financial decision that sets the percentage of profits distributed to shareholders by a business. At this stage, a firm must determine whether to distribute a part of its profits to shareholders as dividends or to reinvest in the industry. Dividend policy is influenced by two critical factors: the decision to pay dividends to shareholders and retain earnings to spend in future ventures (Kanakriyah, 2020).

Kanakriyah (2020) concludes that dividend policy is a key strategic financial decision. In his paper, he mentioned that numerous hypotheses have been proposed to account for investor behavior concerning dividend policy. These views range from favorable to negative in terms of the effect of dividend distribution policies on corporate financial success. The findings of his study are consistent with evidence put forward by other researchers (such as Black and Scholes, 1974; Chen, Liu and Huang 2009; Uddin and Chowdhury, 2005; Adesola and Okwong, 2009). Earlier scholar in dividend policy, Gordon (1963) argues, for example, that

dividend policy is critical in determining corporation value in an unpredictable environment. Even in a well-functioning share market, dividend policies affect the firm's value and share price.

Numerous scholars have examined the relationship between business dividend policy and share price volatility at various points throughout history (Allen and Rachim, 1996; Baskin, 1989). The volatility of the common share is a risk metric that indicates how much a share's price changes over a specified period. The greater the volatility, the more likely a gain or loss will occur in the near term. Kender (2002) asserts that the lesser the risk level, the better the investment.

Nguyen, Tran, and Le (2020) investigate the relation between dividend policy and share price volatility of 260 companies listed on the Hochiminh Stock Exchange (HOSE) in Vietnam from the period 2009 to 2018. The authors conclude that there is a positive relationship between dividend yield and share price volatilities and a negative relationship between dividend payout ratio and share price volatility.

Khaled, Chijoke, and Aruoriwo (2011) examine the relation between dividend policy and share price changes in the UK share market using multiple regression analysis. Evidence indicates that there is a positive relationship between dividend yield and share price changes, and a negative relationship is shown between dividend payout ratio and share price changes.

Foong, Zakaria & Tan (2007) conducted a study to investigate the relationship between share price changes with dividend yield from 1992 to 2000 on 59 public listed companies in Malaysia. The results postulate that dividend yield is found to show a significant inverse relationship with the company’s share returns, and therefore can be used as a predictive power in establishing a relationship with share returns, acting as a signaling mechanism and as an indicator of business risk.

Several theories have been discussed in the works of literature. Among them are a residual theory of dividend, dividend irrelevance theory (MM), dividend relevant theory, and bird-in-the-hand theory. Firstly, the residual theory of dividend is viewed as a residual, or the amount left over after all profitable investment alternatives have been explored and pursued. The dividend choice is made in stages under this approach. First, the ideal level of capital expenditures must be established. Second, the total amount of equity financing required to fund the expenditure is calculated. Third, to achieve the equity requirement, profits are reinvested. Finally, the surplus, or residual, is subsequently given to shareholders as dividends if there is a surplus available in reinvested earnings after fulfilling this equity demand (Zutter and Gitman, 2019).

Secondly, dividend irrelevance theory (MM) claims that whether a corporation pays or does not pay a dividend has no negative consequences for the company or its shareholders. They assert its insignificance through the arbitral process. This model states that a company will fund its provided investment options by either reinvesting earnings or, if it chooses to pay dividends, generating an equal amount by issuing a new share to the market. The gain of higher market value will be countered by a decrease in the share's terminal value (Miller and Modgliani, 1961).

Thirdly, the relevance theory of dividends states that the choice to pay a dividend has a consequence on the firm's selling price, hence dividends are significant. Investors, according to this theory, are risk-averse and would prefer today's payouts ("bird-in-hand") to future share gains and dividends. Dividend policy influences share prices, according to the relevance hypothesis of dividends. As a result, the ideal dividend policy maximizes shareholder value, according to this theory (Miller and Modgliani, 1961).

Fourthly, one of the most significant ideas linked to a company's payout strategy is the bird-in-the-hand theory. In response to Modigliani and Miller's dividend irrelevance argument, Gordon (1963) and Lintner (1962, 1956) formulated this idea. According to Gordon and Lintner, Modigliani and Miller made a mistake by assuming that dividend policy had no impact on a firm's cost of capital. Instead, they asserted that lower incentives result in higher capital expenditures. According to them, investors prefer dividends to capital gains because dividends are more predictable than capital gains, which may or may not occur if the firm maintains its earnings.

METHODOLOGY

This study utilized multiple least square regression to analyze the relationship between the share price volatility with the two important measures of dividend policy, namely dividend yield and dividend payout ratio. The model includes only a limited sample size of 16 companies listed on Bursa Malaysia over the three years from 2018 to 2020. The share price is collected through the Bursa Malaysia website and Investing.com and the dividend per share and earnings per share are collected from each company's annual report for the chosen period. The dependent variable, share price volatility, was regressed against the two independent variables of dividend yield and dividend pay-out as follow:

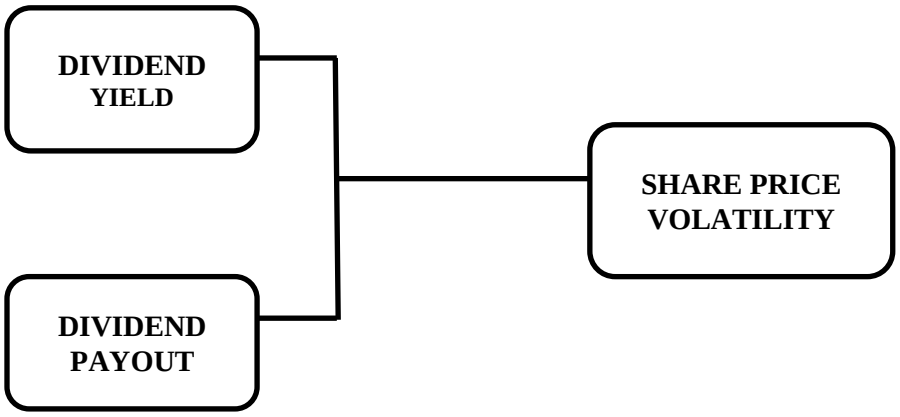
$$P\text{-}Vol = a1 + a2D\text{-}yieldj + a3Payoutj + ej$$

The definitions of variables included in the present study are as follow: the annual range of share price is downloaded from the Investing.com website, for each year. Following Baskin (1989), the annual range is divided by the average highest and lowest prices and squared; the dividend yield is calculated by dividing the annual dividends paid by the price per share (D / P) by the firm's cash dividend per share, and the dividend payout is calculated by dividing the firm's cash dividend per share by its earnings per share.

The model was assessed annually for three years before and after Pandemic COVID-19 to see how dividend policy affects share price volatility over time.

The theoretical framework for this study is presented in Figure 1. The dependent variable is share price volatility, whereas the independent variable is dividend policy, which includes dividend yield and dividend pay-out.

Figure 1: Theoretical Framework of Studies



DISCUSSION OF FINDINGS

Table 1 presents the summary statistics of statistical mean, standard deviation, median and standard error of the variables used in the present study. Following Khaled, Chijoke, and Aruoriwo (2011), the authors compute using the formula introduced by Parkinson (1980), by multiplying the mean price volatility, 2.8604 with the constant value of 0.2421, yielding a result of 0.6925 or 69% which is much higher than Khaled, Chijoke, and Aruoriwo (2011) of 30%. Allen and Rachim (1996) suggested that the standard deviation of share returns is equivalent to the measured volatility with the assumption that the price of the shares is following the normal distribution pattern and ignoring the effect of ex-dividend.

Table 1: Descriptive Analysis

	P. Volatility	Dividend Yield	Dividend Pay-Out
Mean	2.8604	0.0955	-0.37
Standard Error	1.2672	0.0609	1.0253
Median	0.8381	0.0338	0.5444
Standard Deviation	5.0687	0.2437	4.1013
Sample Variance	25.6916	0.0594	16.8211
Range	18.0721	0.9937	16.9664
Sum	45.766	1.5278	-5.9206
Count	16	16	16

Notes: Price volatility: the annual range of share price/average of the high and the low price and squared; dividend yield: dividend per share/price per share; dividend payout: dividend per share/earnings per share.

Table 2 presents summary data for correlation analysis utilized in the study. It can be seen that the correlation between price volatility and the dividend yield is negative (-0.1419 significant at 10%), which is in line with that of Khaled, Chijoke, and Aruoriwo (2011). The result, however, postulates contradictory evidence with Khaled, Chijoke, and Aruoriwo **(**2011**),** whereby the correlation between price volatility and dividend pay-out is positive (0.0730). Evidence also shows a low correlation between dividend yield and pay-out, with a value of 0.0566 indicating that there is no multicollinearity problem occurs in the present study.

Table 2: Correlation Analysis

	P. Volatility	Dividend Yield	Dividend Pay-Out
Share Price Volatility	1		
Dividend Yield	-0.141909846*	1	
Dividend Pay-Out	0.073066887	0.056631141	1

Notes: Significance at *10, **5, and ***1 percent levels; Price volatility: the annual range of share price/average of the high and the low price and squared; dividend yield: dividend per share/price per share; dividend payout: dividend per share/earnings per share.

Table 3 shows the regression results of share price volatility with dividend yield and dividend payout. Evidence indicates a negative relationship between dividend yield and share price volatility, and a positive relationship between dividend payout and share price volatility. The findings are contradicting with evidence put forward by Khaled, Chijoke, and Aruoriwo (2011) and Foong, Zakaria & Tan (2007). The results, however, are not significant for both determinants with the t-statistic and a p-value of dividend yield, -0.5346 and 0.6019, and of dividend pay-out, 0.2968 and 0.7712. The possible explanation for this is due to small observations and the limited period chosen in this study.

Table 3: Regression Analysis during Pandemic Covid-19

	Coefficients	T Stat	P-value
Intercept	3.188596593	2.188412528	0.047497
Dividend Yield	-3.047045372	-0.534624572	0.60193396
Dividend Pay-out	0.100554909	0.296888416	0.771242178

Notes: Significant at: *1,**5 and ***1 percent level; R2 = 0.26, Adj.R2 =0.12; F-stat = 0.1785 and the model used = $P\text{-}Vol = a1 + a2D\text{-}yieldj + a3Payoutj + ej$

CONCLUSION

The main objective of the present study is to investigate the relationship between dividend policy (dividend yield and dividend pay-out) and share price volatility for a limited number of companies listed on Bursa Malaysia for a period of three years (2018-2020). The chosen period is to take into consideration the changes in the economy due to the pandemic of Covid 19.

The findings suggest that there is a negative relationship between dividend yield and share price volatility, and a positive relationship between dividend payout and share price volatility, however, both variables are not significant. The relation between dividend yield and share price volatility is consistent with the finding of Khaled, Chijoke, and Aruoriwo (2011) and Foong, Zakaria & Tan (2007), suggesting that the higher the dividend yield, the less volatile a share price will be. The authors conclude that our findings are aligned with the notion of dividend relevance theory.

The present study suggests that investors need to take into consideration both dividend yield and dividend payout before investment decision-making given that it may provide a signal regarding share price movements. The top management of companies, on the other hand, needs to be careful in formulating dividend policy decisions and to minimize the volatility of the dividend yield by smoothing the dividend payment over time in pushing the share price to a higher level. However, it is recommended that similar studies with larger sample sizes, longer periods, and more variables captured in the model be conducted in the future so that the impact on share price volatility will be more meaningful.

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