# THE MEDIATING ROLE OF DIVIDEND POLICY AMONG ITS DETERMINANTS AND SHARE PRICE VOLATILITY OF MALAYSIAN MANUFACTURING COMPANIES

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## ABSTRACT

The objective of this research is to investigate the effect of dividend policy as a mediator between the factors influencing dividend payout and the share price volatility of manufacturing companies in Malaysia. For this purpose, panel data is used. A sample of 35 dividend and non-dividend paying listed companies in the Malaysian Stock Exchange (Bursa Malaysia) is taken from the manufacturing sector, with subsectors such as food and beverages, chemical, home product and consumer product sector for the time period starting 2009 to 2018. Profitability, cash flow, firm size and leverage are used as independent variables, while their effect is tested on dividend payout acting as an intervening variable and volatility of share price which is the dependent variable. The Pearson Correlation Analysis and Multiple Linear Regression are used for analysis with some more tests to examine the relationship between the independent variables, the mediator and dependent variable using the mediation effect. Financial data was collected from annual reports of the companies listed in Bursa Malaysia and Thomas Reuters DataStream. Results showed a significant positive relationship between profitability and firm size on dividend payout while net cash flow and leverage had a positive but insignificant association with dividend policy. On the other hand, with the introduction of the mediator, there existed an insignificant negative relationship between profitability and volatility while net cash flow recorded an insignificant positive relationship with the dependent variable. A significant negative association was identified between firm size and leverage as well as dividend payout as the mediator with the movement of share prices. All in all, it was concluded that dividend payout mediated the relationship of firm size and leverage on volatility but did not mediate the association of profitability and net cash flow on share price fluctuations.

**Keywords**: Dividend policy, dividend payout, share price, manufacturing, Malaysia

## Introduction

Dividend policy is among one of the major financing mechanisms for deciding the return on investments to shareholders in a firm (Zakaria et al., 2012). In relation to a company's investment, dividend policy is strongly linked to the performance of the firm and is as fundamental to the firm as it is to shareholders. Every company adheres to patterns when it comes to dividends. Upon the profitability of a company, its management can decide to either retain it for growth and reinvestment purposes or allocate the gains in the form of cash dividends (Ullah et al., 2015, Hashemijoo et al., 2012). In the case where a company decides to give out dividends to its shareholders, a permanent dividend policy needs to be established.

The distribution of dividends is an indication to investors that the firm is conforming to good corporate governance practices that a company value much. This indicates that the business possesses the ability to raise funds from the capital share market on an attractive basis. It is a common belief that through dividend payments, a business can attract investors and ultimately, the share price of a firm rises indirectly in some way. This sort of business can raise funds using an easy approach through a new issue of shares for the expansion of the firm and this would further generate higher profits. Ultimately, the price of shares as well will increase, thereby improving the company's financial health and value (Zakaria et al., 2012).

There have been ongoing arguments by researchers and academics about the relevance of dividend policy in relation to the firm value and the volatility of share prices. Its determinants are variant from sector to sector, with the use of different sets of variables. Several controversies were generated amongst financial theories

based on the studies of research of academics such as Modigliani and Miller, Black, Baskin, Gordon among several others. This led to two distinctive groups, specifically dividend relevance and dividend irrelevance. This topic in relation to dividend policy is still open for investigation since there are a lot of contradictions about the relationship between dividends and share prices. Modigliani and Miller (1961) were the first ones to make this discussion. As explained in their previous research, the authors claim that firm value is independent and therefore irrelevant to dividend policy. Conversely, an affirmation by another school of thought explain that a company that pays no dividend tends to be more attractive to investors in comparison to one which makes dividend payment (Black, 1976).

As of today, dividend policy is still considered as a basis of controversy despite the many decades of empirical and theoretical research. In addition, even the stock market plays a fundamental role in every country's economy. Usually, the decisions in concern dividend policy play a direct effect on a company's capital structure. It happens because the payment of dividend reduces the funds which are available for newer investments which companies need for their growth. The determinants of dividends have well been examined by previous researchers and many of them have been identified too, depending on a company's level, its industry, and the country as well. Nevertheless, little attention was paid by literature to the mediating mechanisms of dividend policy with its determinants and the stock prices. The neglect in this context is more pronounced, especially in the case of emerging markets, that have lately become a fundamental center of corporate activity in the economy worldwide (Hunjra, 2018).

The purpose of this paper is to identify, understand and define the relationship between the determinants of dividend policy and the volatility of share price of manufacturing companies that are listed in Bursa Malaysia which is the Malaysian Stock Exchange, using dividend payout as a mediator, considering its interrelationship with share prices. The study is undertaken with the optimism to help and benefit the management prof companies and any interested user. This research will emphasize on manufacturing firms, as there are numerous types of industries which are included in the production sector, implying that the scope of this research is quite big. Further to this, the manufacturing sector in Malaysia is the biggest sub-sector contributing a weighty significant proportion to the GDP of the Malaysian economy. The fact that most of previous studies focusing on the role of dividend policy on share price volatility were based on developed stock markets, the Malaysian stock market has been chosen as a dynamic emerging market.

There have been various studies undertaken to identify the impact of profits, cash flows, dividend policy on share price volatility in Malaysia, being well documented in literature. However, less emphasis has been put to the mediating mechanisms of dividends. Another major aspect to be taken into consideration is that not all companies pay dividends. Some firms still prefer reinvesting their profits for other purposes in their companies instead of distributing them. It therefore becomes rational to analyze whether dividend supports a link between these variables or the opposite. In addition, since the effect of dividend policy on share volatility has become very popular amongst scholars, many studies have been conducted on this topic worldwide. Nevertheless, the fact that different researchers use different methods and approaches, it eventually leads to inconsistent results being generated. Some findings reveal that there exists a positive relationship between dividend policy and share price volatility while other opposite results display a negative correlation or no relationship at all between both variables. Some scholars argue that dividend policy is irrelevant (Miller and Modigliani, 1958) whereas others view it otherwise. The mediation effect as well has generated few controversies due to external factors being considered (Bhagmal and Hassan, 2019). The fact that inconsistent and opposite results have been by far obtained from the various sources, a proper finding on whether dividend policy mediates the relationship of its determinants and share price volatility is difficult to obtain, which eventually causes much biasness. As finance students or people who have less knowledge about dividend policies and the factors influencing them, there is a lack on accuracy and reliability on which theory to focus.

Besides, Malaysia, as a dynamic emerging market is going through phases of uncertainty. The stock market in Malaysia is indeed pretty much volatile and share prices change daily in the markets. When it comes to share prices, the movement of share prices does not have any benchmark. This uncertainty is taking its toll, the reason being attributed to a lack of serious academic research and the absence of mediating mechanism (Hunjra, 2018). Thus, it is important to find as much information as possible about this topic since stock prices and dividends are one among the hottest topics in the financial world. Furthermore, investors tend to invest in companies whereby they feel that there is the opportunity to reap the maximum of the firm's profits in the form of dividends. This results in increases in investment and stock prices tend to go up. Yet, a high dividend payout

could as well be the consequence of a weak share price. Yet again, inconsistency in the result is generated. Besides, in accordance with Boyte-White (2018), a falling share price may lead to corporate bankruptcy, ultimately having an adversative effect on Malaysian production firms in Malaysia. Therefore, the need to conduct this study is essential to have a much broader insight about how the factors influencing dividend policy might affect the share price movements. It has nonetheless remained a puzzle whether a firm's share market prices are really affected by a company's dividend policy and its determinants. Henceforth, the study has been set to determine if a causal relationship existed between the determinants of dividend policy and the stock prices of a firm and whether dividend payout could act as a mediator between them (Onchiri, 2013).

## Literature review

### Relationship between Profitability and Dividend Payout

During research undertaken by Maniagi G. Musiega et al. (2013) on determining which factors affected dividend payout of non-financial companies, it could be observed that profitability had a significant positive influence on the dividend payout ratio. The researchers claimed more the firms could turn their assets into profits, the more they tend to pay out higher dividends. Alzomaia and Al-Khadiri (2013) suggested that there existed a positive relationship between dividend payout and profitability. According to Fitri et al., (2016), the findings were such that the previous dividend rates and profitability of the companies had a significant influence on their decisions on whether the distribution of the dividends should be high or low. In other words, taking the earlier year's level of dividends into consideration, when there was an increase in profitability, companies would pay higher dividends. The results were seconded by Lintner (1956) and Baker et al. (1985)'s traditional study who suggested that current year earnings and previous year dividends influence the dividends paid by firms. Khan et al. (2017), on the other hand, suggested that while profitability, tax and cash flow had a significant influence on dividend policy, other variables for instance sales growth and debt to equity did not affect dividends. Kanwal and Hameed (2017) attempted to identify the association between dividends and the financial performance of companies by using variables such as return on asset, return on equity, and net profit after tax, all being measures of profitability. The researchers' results showed a positive and significant relationship between dividend policy and the variables mentioned above. Annual profits are used by companies to pay out dividends to their shareholders. Thanatawee (2011) stated that a firm having higher profits implies that managers have greater availability of cash flows for investment in the growth of a company (Mustapha & Mui, 2016). Despite all the above being said, there is a school of thought which claims that profitability has no significant influence on dividend policy and that the two variables have a negative relationship. In a study undertaken by Ahmed (2015), it was found that profitability was an insignificant and negative factor to dividend payout. The author clarifies that even though profitable firms pay out dividends to their shareholders, it does not necessarily mean that companies who do not pay dividends are not earning good profits. Although a company is making a huge amount of profits, it may decide to keep the profits for reinvestment purposes instead of paying out dividends. Maladjian and El Khoury (2014) supported the evidence whereby the authors found that dividend payout and profitability have an inverse relationship and explained that Lebanese companies would prefer investing their earnings for more growth rather than paying shareholders their dividends. Nonetheless, in a paper by Glen et al. (1995), results obtained were such that a significant difference was recorded in dividend policies in developing and developed countries. The authors thereby concluded that companies in an emerging market are less likely to follow a stable dividend pattern, which explains the reason why the dividend for a particular year depends on the profitability of companies during that respective year (Al-Kuwari, 2009). Wang et al. (2002) also found that companies from the UK had a well-defined dividend policy whereby every company is paying the dividend to their shareholders, and all yearly increase in dividends were included. Chinese companies, on the other hand, rather had unstable payments of dividends which highly depended on the profitability of the companies for that particular year (Al-Kuwari, 2009).

### Relationship between Profitability and Share Price Volatility

In a study conducted by Oktaryani and Mannan (2018), the authors suggest that the more the profitability of a firm, the greater is the amount that is available to shareholders. As such, the value of the firm increases, thereby increasing share prices. When there is an increase in the return on equity (ROE), this means that there is an improved corporate prospect. Investors, in turn, consider this as a positive signal that makes it easy for the company's management for attracting capital in terms of shares. Hobarth (2016) undertook an analysis of

the relationship between financial indicators such as profitability measured by return on income (ROI). The results demonstrated that high profitability in terms of incomes and earnings led to higher share prices and better cash flow and market performances. Khan (2012) found that there is a positive relationship between share price movements and dividend yield (Ullah et al., 2015). Likewise, another study conducted by Asghar et al. (2011) found in their study that the association between the two variables were positive and significant in KSE in Pakistan. Following Menaje (2012), he suggested that there is a strong and positive relationship between share prices and ROE and EPS. On the other hand, the authors found ROA and share prices to have a weak and negative correlation. Hunjra et al. (2015) stated that there was a negative relationship between dividend yield and share price volatility while there existed a positive and significant relationship between return on equity and share prices. Besides, a significant negative correlation between dividend yield and share volatility was found in Shah and Noreen's (2016) research into the role of dividend and stock price volatility. Jatoi et al. (2014) investigated the impact of profitability on share prices of the market by using earnings per share (EPS) as a measurement for profitability demonstrated a significant relationship between EPS and share prices, and it was thus concluded that earnings per share affected the value of shares significantly. In another study conducted, Umar and Musa (2013) showed that EPS as a measure of profitability is not significant to the share prices of the Nigerian companies. It was thereby concluded that EPS does not influence stock prices, nor does it have any predictive power for the dependent variables, after which the authors stated that EPS should not be used to predict the share prices of companies in Nigeria. Anwaar (2016) found there was a significant positive association between return on assets and net profit margin on share prices. On the other hand, earnings per share and share prices were negatively related, while quick ratio and return on equity have an insignificant association with stock prices. These mixed results give rise to the hypothesis of ***H*2**: There is a relationship between profitability and the volatility of share price

**Relationship between Cash Flow and Dividend Payout**

Over the past years, research undertaken on the topic of dividends and cash flows demonstrated a significant positive association between the two. Significant free cash flow and the higher the profitability of the company initiated the latter to pay higher dividends (Guizani et al., 2012, Adjaoud et al., 2010, Kowalewski et al., 2007 and Issa, 2015). Another recent research by Edmund (2018) revealed that free cash flow was a significant determinant of dividend payout. Besides, some scholars have also tested the linkage between dividend payout ratio and net cash flow together with free cash flow. Different researchers have had different approaches and different views of and about which one to be adopted. Some of them employed free cash flow to determine the company's cash position while other researchers believe that making the use of net cash flow would be a better method to measure the dividend payout of firms. According to Hellström & Inagambaev (2012), the only difference between the two of them is that free cash flow consists of just the cash flow more than what is needed for the financing of all investments. Gill et al. (2010) claimed that a company's cash flow position is one of the most substantial determinants of dividend. Mat et al. (2017) define cash flow as an operating fund which is allotted to each share. While a poor liquidity position usually indicates a shortage of cash, higher net cash flows, on the other hand, indicate a higher dividend. The authors argued that dividends are significantly affected by net cash flows and that the ability of dividend distribution by a firm is majorly dependent on cash flows and earnings. Supporting the above results indicating a positive relationship, Amidu and Abor (2006) explain that this is so because cash flows reflect retained profits, and the distribution of dividend is done when taking into consideration the retained profits. According to Khan and Ashraf (2014), dividends and net cash flows move in the same direction, meaning that if net cash flow faces an upward movement, dividend payouts will face the same movement too, and vice versa. This above argument has been supported by far many researchers such as Juma'h and Pacheco (2008), AlMalkawi (2007), Charitou (1999) and Bradley et al. (1998). Akinyi Olang et al. (2015) also found that a positive relationship existed between dividends and net cash flow. Conversely, other scholars have found contradicting results concerning the above and stated that cash flows and dividends either have a negative relationship or are not significant to each other. For instance, Gill et al. (2010) found that a negative relationship existed between dividends and cash flows and the findings also showed that net cash flow was not significant in determining dividend payout, therefore not considered as a major influence of dividend patterns. Rehman and Takumi (2012) and Kangarlouei et al. (2012) confirmed that dividends and cash are negatively related and do not justify the dividend pattern. Last but not the least, Saeed et al. (2014) concluded that there is an insignificant relationship that exists between net cash flow and dividend

payouts. These results give rise to the hypothesis of ***H*3**: There is a relationship between cash flow and dividend payout.

**Relationship between Cash Flow and Share Price Volatility**

Oroud et al. (2017) analyzed the value relevance of cash flows and its effects on share prices of companies listed in the Amman Stock Exchange that is based in Jordan. All cash flow components were found to be statistically significant with the Jordanian companies' share prices. On the other hand, when analyzed separately, there existed a positive relationship between operating cash flow but a negative relationship between financing and investing cash flow and share prices, respectively in a paper published by Asif et al. (2016). They investigated how accounting information the results showed that there existed a positive and significant association between operating cash flow with the sample companies' share prices. The result is supported by that of Etale and Bingilar (2016). They showed that all the cash flow components had a positive and significant impact on the Nigerian banks' share prices. Following Hamza (2014), it was found that a significant positive correlation existed between cash flows from operating and investing activities and share prices of certain insurance companies. While for the rest of the companies, non-significant relationships were observed.

Nevertheless, no significant relationships have been observed between the combined activities for cash flows and stock prices. In another study by Al Zararee and Al-Azzawi (2014) who analyzed the impact of free cash flow to equity on the share market value of companies in Jordan, the results showed that the share market values are identified satisfactorily by free cash flow. Therefore the authors sustain that free cash flow has a positive impact on the share prices of companies. Bashir et al. (2013) denoted by the share prices of the company has a significant correlation with cash flows. In addition to this, they uncovered a direct and significant relationship between cash flow and share prices. Also, they stated that companies with high cash flows could boost their profits with the use of accruals for naturalizing and balancing low gains and profits. Khanji and Siam (2015) stated that the financing cash flows had no significant effect on the stock prices of the commercial banks in Jordan. In a research undertaken by Novianti et al. (2012), the authors found that accounting profits and cash flows from investing activities have a significant positive relationship with share price volatility while cash flow from operations and financing activities do not significantly affect stock prices. These results give rise to the hypothesis of ***H*4**: There is a relationship between cash flow and share price volatility

**Relationship between Leverage and Dividend Payout**

In a research conducted in Malaysia by Appannan and Sim (2011), the authors found that dividend per share and leverage are positively correlated, and the latter stated that leverage takes a major influence on a firm's decision concerning payments of dividends. Supporting the result, Khan and Ashraf (2014) also found that there is a positive and significant relationship between dividends and leverage and that dividend payout is a function of debt to equity. Research by Labhane and Das (2015) showed that leverage influences dividend payout positively. The findings of Rehman & Takumi (2012) conclude that leverage, current ratio, corporate tax, and profitability are positively related to dividend payout. On the other hand, in the same research undertaken by Gill et al. (2010) found that a positive relationship existed between dividends and leverage in the services sector. However, in the manufacturing sector, the findings showed that there was a negative relationship between both variables, therefore considered as not having a major significant influence in determining dividend payout. Fitri et al. (2016) determined that whichever increase in debt does not have any effect on the dividend distribution capacity of a particular company to its shareholders. It implies that although there is a higher debt ratio, the revenue that shareholders are to receive is less likely to be reduced, suggesting a negative relationship between both variables. Other scholars' findings suggested that a statistically negative significant association exists between dividends and risk, further explaining that the higher the level of risk, the lower will be the dividend rate (Gill et al., 2010). Another study by Sugiarto (2015) claimed that there exists a significant negative relationship between debt to equity and dividend payout. Last but not the least, Jiang and Jiranyakul (2013) found that leverage did not have any significant effect on the dividend payout ratio of Chinese companies. These mixed results give rise to the hypothesis of ***H*5**: There is a relationship between leverage and dividend payout.

**Relationship between Leverage and Share Price Volatility**

Mehmood et al. (2019) investigated the determinants of share price volatility in the market demonstrated a negative relationship between leverage and share price volatility. In a study by Ahmad et al. (2018), the results showed that there existed positive and significant relationship leverage with the sample companies' share prices. Ouso and Mutava (2018) investigated a significant relationship between debt and share price volatility while there existed a positive and significant relationship between dividends and share prices. Gautam (2017) uncovered that leverage had a positive relationship with share prices, meaning that the higher the leverage, the higher would be the share prices. According to research conducted by Hussainey et al. (2010), share price volatility is substantially and positively linked to equity. Likewise, Rashid and Rahman (2008) investigated the correlation between dividend policy and share price volatility with the use of the cross-sectional regression analysis and found that debt and share price had an insignificant positive result. In research by Profilet and Bacon (2013), it was found that leverage and stock price volatility were negatively related. Hashemijoo (2012) demonstrated that leverage had a negative relationship with share price volatility. That of Arditti (1967) supports the above result, and Hall et al. (1967), followed by the same evidence found during the research conducted by Zakaria et al. (2012). These results give rise to the hypothesis of ***H*6**: There is a relationship between leverage and the volatility of share price

**Relationship between Firm Size and Dividend Payout**

Hellstrom and Inagambaev (2012) showed a significant positive result between the size of medium cap firms and dividend payout. Supporting the above evidence is a study conducted by Tahir and Mustaq (2016) in Pakistan, firm size was found to have a positive and significant relationship with dividend policy. In a study conducted by Alber and Alhabtour (2015), the authors showed that dividends were highly affected by not only the size of firms but also other influences like age of the firm, profitability and past year dividends of the companies. Research concerning the determinants of dividend policy undertaken by Mat et al. (2016) found that a positive relationship exists between dividend payout and firm size. The authors suggest that larger firms earning stable earnings or higher profits are better likely to make a higher dividend distribution to their shareholders. Apart from that, according to the researchers, the most significant determinants of dividend policy are cash flow, size of earnings and firm size. Last but not the least, Lestari (2018) found that a significant relationship exists between firm size and dividend policy and claims that the more a firm is large, the more dividend needs to be paid to reduce agency problems.

On the other hand, discussions by other academics are in contradiction to the above findings. They suggest that firm size did not have any significant impact on the dividend policies of companies. For example, in a study undertaken by Bushra and Mirza (2015) showed that there is a negative linkage between dividend payout and dividend yield. The researchers justify their findings by saying that the bigger a firm is, the more companies will attempt to avoid paying out dividends to save money to be able to pay off their debts. With the above similar findings is a research conducted by Cristea and Cristea (2017) found in their study that firm size, along with growth and leverage, is negatively associated with dividend policies. King' wara (2015) also support the above evidence and state that dividend payouts and firm size are negatively related. Last but not the least, Ramachandran and Packkirisamy (2010) discovered that dividend payments and size of firms are not significant. The authors delivered that regardless of the size of a company, the amount of dividends that will be paid out to shareholders of the company has a large dependency on the company's level of debt. Although there are many studies undertaken on firm size, no strong evidence can be relied on to justify the relationship between dividend payout ratio and firm size. These results give rise to the hypothesis of ***H***7: There is a relationship between firm size and dividend payout.

**Relationship between Firm Size and Share Price Volatility**

Mehmood et al. (2019) and Sadiq et al. (2013) investigated a positive relationship between the size of the firm and share price volatility. The findings showed a positive relationship between the size of the business and the fluctuation of the stock price. Besides, the above results were backed by the research carried out by Rashid and Rahman (2008). The results of the research conducted by Naveed (2013) showed that there was a positive significant between the mentioned variable and share price. On the other hand, A significant negative relationship between firm size and share price volatility was identified in the study of Hashemijoo et al. (2012). The above findings are backed by those of Lashgari and Ahmadi (2014) and Nazir et al. (2010) who also found

negative associations between the size of the firm and share prices. Ramadan (2013), who tried to examine how dividend affects volatility in share prices, conducted another research supporting the above finding. The researcher used the size as a controlling factor, and an insignificant relationship with the volatility of share prices was identified. These results give rise to the hypothesis of ***H***8: There is a relationship between firm size and the volatility of share price.

**Relationship between Dividend Payout Ratio and Share Price Volatility**

Ullah et al. (2015) investigated the impact of dividend policy on the share price of the Karachi Stock Exchange in Pakistan. The results found that there was a positive relationship between dividend payout and share price volatility, likewise, thorough investigation by Zakaria et al. (2012, the dividend payout is positive and significant to share prices. The role of dividend payments on share prices was analyzed by Huang et al. (2009). The results showed that the relationship between the two was positive and significant, together with the increase in earnings. The analysis showed that if the dividend price ratio is divided into the components of the earning price ratio and the payout ratio, the ability to estimate future returns is higher, which defines the relationship between the dependent and the independent variable.

Further research supporting the importance of dividend payments and stock price volatility was performed by Masum (2014). It was found that stock prices were substantially positively affected by the dividend (Ullah et al. 2015). On the other hand, Lashgari and Ahmadi (2014) found that there is a negative relationship between the dividend payout ratio and the PR ratio. In research conducted by Nazir et al. (2010), it was found that there is a negative relationship between dividend payments and volatility in share prices. In support of the above findings, the research conducted by Hussainey et al. (2011) has shown a negative relationship between the share price and the dividend payout ratio. Baskin (1989), on the other hand, found that payment had no relation to stock price volatility. These results give rise to the hypothesis of ***H*9**: There is a relationship between dividend payout and the volatility of share.

**Methodology and Research Design**

The study is intended at evaluating the factors affecting share price volatility and whether dividend payout serves as a mediator. The purpose is to understand the connection between the independent variables and the mentioned dependent variables. This analysis will be carried out on a sample of 35 manufacturing companies listed in Malaysia under Bursa Malaysia to evaluate the effect of dividend policy determinants on share price volatility using dividend shift as a mediating element. The work will be observational, and there will be a 10-year study timeline during which data will be collected from 2009 to 2018. Only secondary information will be used for this purpose. Annual reports from 2009 to 2018 of a sample of 35 manufacturing companies out of 908 listed companies in Bursa Malaysia from sub-sectors such as food, beverage chemical, construction and materials, consumer product manufacturing, will be used to analyze this research. Thomas Reuters DataStream will also be used to collect any additional relevant related information.

**Findings and Discussion**

Profitability was found to have a weak positive correlation with dividend payout. The finding showed that dividend payout and profitability have a significant relationship. Generally, the positive relationship indicates that the more the increase in profitability, the more investors are likely to be attracted thereby the rationale of greater dividend distribution. In other words, manufacturing firms with a high level of profitability in Malaysia for the period of 2009 to 2019 were less likely to retain and reinvest back their profits and cash in their future or rather settle their debts. Still, they would instead distribute the cash and gains in the form of dividends. Nevertheless, Badu (2013) states that high levels of profitability do not necessarily affect dividend payout because sometimes the dividend distribution is done when managers feel that it is right to do so. This above result is in line with that of Khan et al. (2017), Nuhu et al. (2014), Maniagi G. Musiega et al. (2013), Thu et al. (2013) and Alzomaia and Al-Khadiri (2013) among other researchers who also found a positive and significant relationship between profitability and dividend payout. On the other hand, opposite results were obtained by Okoro et al. (2018) and Ahmed and Murtaza (2015) who also obtained a positive but insignificant relationship while Kairan (2017) suggested a negative association between the two variables. Mui and Mustapha (2016), on the other hand, conclude an insignificant and negative linkage between profitability and dividend distribution.

A very weak positive correlation coefficient has been obtained for net cash flow and dividend payout. The result is in line with that of Sindhu (2014) and Saeed et al. (2014) who also found a positive but insignificant relationship between the variables. However, many researchers have found that net cash flow and dividends are positively associated and move the same way, which means that if cash flow increases, dividend payments also tend to increase (Khan et al., 2017, Olang et al., 2015, Issa, 2015). Mat et al. (2017) define cash flow as an operating fund which is allotted to each share and explains that while a poor liquidity position usually indicates a shortage of cash, higher net cash flows, on the other hand, indicate higher dividend. The agency theory suggests that higher dividends are paid when companies have higher cash flows per Jensen (1986). It happens because of the occurrence of agency conflicts between managers and shareholders take place whereby shareholders want dividends while managers would prefer retaining the cash for future business purposes. The proportion of dividend payments need to be increased whenever firms have in their possession excess cash flows to reduce these conflicts. Khan et al. (2017) support that dividends are only paid out whenever firms have excess cash flows, justifying the positive relationship between dividend payout and cash flows. Nevertheless, the insignificant association can be explained by the fact that not all manufacturing companies in Malaysia do not necessarily distribute higher dividends despite having higher cash flows. Some of them retain and reinvest back cash in the future or rather settle their debts instead of allocation the cash in the form of dividends. High levels of net cash flows do not necessarily influence payout of dividends since as mentioned earlier, dividend distribution is rather done as and when managers feel that it is right to do so (Badu, 2013).

A positive linkage between the size of the firm and dividend payout is observed. The results show that firm size and dividends have a weak positive significant relationship. The result is also found to be in line with the theory of agency cost that justifies the more firm is bigger, the more the proportion of shares shareholders own and therefore, the necessity for higher dividends to be distributed to them. Bigger firms are more able to generate higher gains and profits, the reason being a lower cost to raise capital, thereby permitting them to have a higher payout of dividends. Moreover, this is supported by the fact that larger companies pay higher dividends to maximize shareholders' wealth. Following Hellstrom and Inangambaev (2012), the more a company grows in size, the more it is exposed to agency costs and therefore for the reduction of these cost types, the company need to payout more dividends compared to smaller companies. This situation ultimately implies that shareholders tend to have more control and power over the company's management, pressurizing managers to payout greater dividends (Yusof and Ismail, 2014). The above results are supported by those of Lestari (2018), Mui and Mustapha (2016), Alber and Alhabtour (2015), Labhane and Das (2015) and Hellstrom and Inangambaev (2012) among other researchers, all of whom as well found a significant positive relationship between the size of firms and dividend payout. On the other hand, Jozwiak (2015) and Arumba (2012) who found a positive but insignificant relationship between both variables, contend that dividends are not impacted by firm size. Similarly, Okoro et al. (2018) found an insignificant negative relationship while the finding of Kairan (2017) suggested a significant negative association.

It can be observed that leverage is to have an inverse relationship with dividend payout with a very weak coefficient. This negative and insignificant relationship is explained by the fact that when a firm is indebted, it tends to pay lower dividends than in general due to the reason that the ability of a company to pay dividends is affected by the debt to equity ratio. The firms whose business operations are financed through borrowings are more likely to face liquidity issues. This situation tends to make these companies incapable of distributing dividends to their shareholders. The main reason is that companies must repay their debts together with interest charges, therefore having a greater obligation to creditors. All in all, the main priority of a company generally is to repay all its debts, only then they might take into consideration paying out dividends. The balance that remains to pay out shareholders after having deducted all these costs will generally be lower. The findings obtained in this study are in line with that of Okoro et al. (2018), Fitri et al. (2016), King' wara (2015), Jiang and Jiranyakul (2013) and Gill et al. (2010). They all found an insignificant negative relationship between both variables. Fitri et al. (2016) determined that whichever increase in debt does not have any effect on the dividend distribution capacity of a company to its shareholders. It implies that although there is a higher debt ratio, the revenue that shareholders are to receive is less likely to be reduced, suggesting the insignificant negative relationship between both variables. Following King' wara (2015), companies having high leverage will be less likely to pay out dividends to shareholders as a return on their investments. They will require more borrowings for the financing of their business activities and being already highly indebted and facing liquidity

issues if they pay the dividends as their liquidity position will worsen. Thus, to sustain the financial stability of the firms, they refrain from giving out dividends. This situation also explains the fact why the distribution of dividends is not allowed by some debt covenants, resulting in very little or no dividend payout at all (Yusof and Ismail, 2014). Nevertheless, opposite results have been found by other researches like Labhane and Das (2015), Rehman and Takumi (2012) and Thu et al. (2013) who found a significant positive connection. They were suggesting that the higher the leverage, the more the dividends paid. Conversely, Kairan (2017) and Sugiarto (2015) found a negative but significant relationship between leverage and dividend payout.

In terms of the relationship between profitability and volatility of share price, a negative correlation can be observed between price volatility and profitability. This outcome is supported by that of Handayani et al. (2018), Anwaar (2016), Umar and Musa (2013), Sadiq et al. (2013) and Zuriawati et al. (2012) whereby in the latter's research, profits did not influence any change in share price movements. Rashid and Rahman (2008) suggest that an insignificant profitability result might have been caused because of a capital market which is inefficient or probably due to a large proportion of stock being held by leading shareholders having a large market share in the board of the firm (Nazir et al., 2012). Since the profitability does not influence stock price volatility, nor does it have any predictive power for the share prices, Umar and Musa (2013) suggested that return on equity as a measure of profitability should not be used to predict the share prices of companies. Wang et al. (2014) suggest that the volatility of stock prices may be determined not by return on equity but by other various factors, one of which may be the trading volume of the company itself.

Net cash flow is found to have an insignificant inverse relationship with share price volatility by a very weak positive coefficient value. The above finding is also in line with that of Utomo and Pamungkas (2018), Handayani et al. (2018), Oroud et al. (2017), Khanji and Siam (2015) and Hamza (2014) who also identified a positive and insignificant linkage with net cash flow and the volatility if share prices. The results indicate that operating cash flow remains a positive influence on the volatility of share prices of manufacturing companies, thereby on the stock returns as well. The point can explain the positive relationship that the generating of cash is one of the most fundamental factors that potential investors tend to look at when seeking numerous stocks. Dividends, asset values and earnings might as well be important aspects to consider, but a company that has the capacity of generating cash besides fuels the growth of these other aspects. Therefore, higher net cash flows are contemplated as an indicator of increasing stock prices (Mundia, 2016). Also, following Ong (2019), the quality of gains that are reported by companies need to be validated due to the stock market having the tendency or overvaluing accounting earnings. Generally, risk-averse investors would tend to choose stocks with higher cash flows since the volatility is lower. At the same time, risk-takers would prefer lower cash flows since the volatility would be higher, thereby the return stock return. A stock which generates greater cash flows is more likely to translate to higher valuation of share prices. Nevertheless, net cash flow is insignificant to the volatility of the stock prices of Malaysian manufacturing for the period 2009 to 2018. Khraywesh (2001) explained that in favourable financial markets, a company's net cash flows are associated with the short term and long-term obligations on the one hand while on the other hands, to ownership rights. Therefore, he states that net cash flow has no significance on the market value of a company's stock, hence volatility. Ernayani et al. (2017) justify that cash flow is insignificant in the sense that investors tend to stay away from firms that have considerable financial risks. The reason is due to their stock returns are not expected to be met since a corporation having great financial risk implies that it has a high level of debt. At the same time, the cash which is held by the company is equal to or even lower than the total amount of debt that the corporation owns (Handayani et al., 2018). Last but not the least, sometimes a company may have negative cash flow, but this does not imply that the company is underperforming and vice versa. Therefore, it is insignificant. Cash flows usually do not gain a lot of attention for determining the strength of volatility of shares or the financial health of companies (Mundia, 2016). Conversely, Asif et al. (2016) also found a positive but significant relationship between the two mentioned variables.

An adverse linkage between the size of the firm and price volatility is observed. It is shown that firm size, and price volatility has a significant relationship. The findings are consistent with those of Zainudin et al. (2016), Hooi (2015), Lashgari and Ahmad (2014), Profilet and Bacon (2013), Hashemijoo et al. (2012), Hussainey et al. (2010) who also found an inverse and significant linkage between size and price volatility. This relationship means that the larger the size of a firm, the lesser the share price will be volatile according to (Hussainey et al., 2011). This negative relationship can be justified by the fact that the more a firm is smaller in size, the more it is likely to be exposed to risk with stock prices (Nazir et al., 2012). According to Allen and

Rachim (1996), companies that are smaller in size are less likely to be involved in diversification operations because they do not tend to be highly diversified. As a result, in comparison to large firms, small companies are less subject to the interest and scrutiny of investors and financial institutions, making the stocks of small companies less interesting to be analyzed. The small companies' stock that is traded in the market to being less informed and face more illiquidity. As a result, this causes a higher price volatility of shares (Bong, 2012). In general, the assumption is that bigger firms tend to be more financially sound and profitable, thereby they are more likely to experience lower fluctuations in share prices meaning that they are a lesser risky investment Sewelén (2017), Zainudin et al., 2016). Other authors found opposite results, for instance, Naveed (2013) found a significant but positive relationship between the two mentioned variables while Shah and Noreen (2016) and Ramadan (2013) conversely found an insignificant relationship between firm size and price volatility.

Debt to equity ratio, used as a proxy for leverage, is found to have an adverse significant association with share price volatility. The results are consistent with that of Mehmood et al. (2019), Ouso and Mutava (2018), Lashgari and Ahmadi (2014), Profilet and Bacon (2013), Zakaria et al. (2012), Hashemijoo et al. (2012), Arditti (1967) and Hall et al. (1967), all of whom obtained a significant and negative correlation between leverage and volatility of the stock. It means that investors perceive increased leverage as a signal of financial burden, which in turn leads to market prices being affected adversely (Lashgari and Ahmadi, 2014). This inverse association is explained by Murhadi (2012), who clarifies that investors expect that a company's debt structure should not be too large. The interpretation of this is the company's capital structure is used by investors as a basis to invest in the company. The investor's decision is influenced by the ratio debt structure, which is leverage, in other words, thus determining that leverage impacts price volatility. Therefore, a rise in the debt to equity ratio will result in a decline of the stock price of a company, following which the stock price volatility will follow a negative trend (Nuswandari, 2013). On the other side, other academics found opposing results concerning leverage and volatility. For instance, Handayani et al., (2018), Gautam (2017) as well as Hussainey et al. (2011) obtained a positive and significant relationship for leverage and volatility while Rashid and Rahman (2008) found the leverage had no significant effect on the volatility of stock prices.

Dividend payout was found to have a negative significant correlation with share price volatility. The finding is line with Sewelén (2017), Zainudin et al. (2016) who suggested that dividend payout continues to remain significant in forecasting price volatility. Nevertheless, both variables share an inverse relationship. The same result is also following that of Shah and Noreen (2016), Hooi (2015), Lashgari and Ahmad (2014), Al-Shawawreh (2014), Ramadan (2013), Nazir et al., (2012), Hussainey et al. (2011), among many other researchers. The finding signifies that the higher the dividend payout, lower will be the movement of share prices. Dividend payout could be an indication to the market that is likely to influence fluctuations in stock prices, influencing managers to be vigilant before changing corporate policies concerning dividend payout. This finding is in contradiction with the Miller and Modigliani theory stating that dividends do not have any effect on share prices. Moreover, this significant negative relationship can be supported by the Bird in Hand theory which explains that investors would generally prefer the distribution of a larger proportion of capital gains to them in the form of dividends since it provides them with a 'safe' return. However, this tends to hinder future growth, hence the stock's future growth too. The finding is also in line with the signalling theory, which states that managers can use dividend payout for sending out signals to the rest of the market. A dividend payout increase could imply that investors and shareholders do not have much to fear about in regards to the survival and financial health of their particular firm, hence suggesting lower price volatility (Sewelén, 2017). On the other hand, the opposite results were recorded by Ullah et al. (2015) and Masum (2014). They found a significant positive relationship between dividend policy and volatility, while Baskin (1989) suggested an insignificant association between same.

**Mediating Effect and Conclusion**

The direct effect of net cash flow and share price volatility does not show any significant relationship. Even when net cash flow is regressed against the volatility of share prices in the presence of the mediator, there still exists an insignificant association between the independent variable and the dependent variable. However, the amount of relationship which is strengthened by the mediator sums up to a negative value, henceforth concluding that in this study, dividend payout does not mediate the relationship of net cash flow with share price volatility of the manufacturing companies in Bursa Malaysia. The findings suggest that there exists a

significant relationship between firm size and share price volatility both as a direct effect as well as indirectly with the presence of dividend payout as a mediator. It is to be noted that dividend payout as an intervening variable, accounts for an 8.96% degree of association of the direct effect of firm size and volatility. Since dividend payout strengthens the relationship between firm size as an independent variable and share price volatility as a dependent variable, the alternative hypothesis is accepted, that dividend payout mediates the relationship of firm size with share price volatility of the manufacturing companies in Bursa Malaysia. When it comes to leverage, the direct regression effect of the mentioned variable on share price volatility shows an insignificant negative relationship. However, when leverage is regressed against share price volatility with the presence of dividend payout as a mediator, the beta coefficient for leverage stays the same. Still, leverage becomes significant to share price volatility. It can, therefore, be deduced that dividend payout mediates the relationship of leverage with share price volatility of the manufacturing companies in Bursa Malaysia.

The results revealed a change in the beta value of the relationship after having dividend payout as a mediator. Nevertheless, the direct effect of profitability and share price volatility does not show any significant relationship. It still shows an insignificant relationship between volatility and profitability, although both the variables are regressed with the presence of the mediator. It can thus be assumed that dividend does not mediate the relationship of profitability on volatility. The amount of relationship which is strengthened between net cash flow and price volatility after the mediator, namely dividend payout, has been introduced. However, the direct effect of net cash flow and share price volatility does not show any significant relationship. Similarly, when both variables are regressed with the introduction of dividend payout as an intermediary, an insignificant association is still observed between both variables. As a result, it is concluded that dividend does not mediate the relationship between net cash flow and share price volatility.

Besides the above, the degree of association has been accounted for by dividend payout between firm size and share price volatility. On that note, we can conclude that dividend payout mediates the relationship of firm size on share price volatility. When leverage is regressed against share price volatility with the presence of the mediator, the beta coefficient for leverage stays the same. Still, leverage becomes significant to share price volatility when dividend payout is introduced. Therefore, it can be deduced that that dividend payout mediates the relationship of leverage on share price volatility. Besides, dividend payout as a mediator has a significant negative relationship with share price volatility in the model. In conclusion, a partial mediation exists in our model, since dividend payout mediates the relationship between the independent variables and dependent variable, for some variables not for all. Partial mediation implies that there must not be an only significant relationship between the mediator and share price volatility but also some direct relationship exists between the independent and dependent variable (Malik and Maqsood, 2015).

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