

# The Effect of Ownership Structure, Capital Structure, and Investment Opportunity Set on Firm Values Mediated by a Dividend Policy

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This study aimed to examine and analyse the effect and influence of ownership structure, capital structure, investment opportunity set on firm values mediated by dividend policy, and dividend policy on the value of the firm. The type of research used is an explanatory type of research, which explains the symptoms caused by an object of research, namely by testing and analysing the influence of ownership structure, capital structure, investment opportunity set (IOS) on company value through dividend policy as its mediation. The population size of this research consisted of 151 manufacturing companies listed on the Indonesia Stock Exchange that operated between 2013-2017. Companies chosen in the observation period had distributed dividends and had managerial ownership of 32 companies for 5 years which equates to 160 firm years. The method of data analysis is Path analysis and Sobel test, which is used to test the mediating role of dividend policy variable. The findings of the research are that ownership structure, capital structure and IOS significantly influence the firm value, ownership structure, and capital structure; IOS have no significant effect on dividend policy and ownership structure; IOS have a significant effect on company value mediated dividend policy; capital structure has no significant effect towards company value mediated dividend policy; and that dividend policy has no significant effect on firm value.

**Key words:** *Managerial Ownership, Debt to Equity Ratio, Market to Book Value of Asset Ratio, Dividend Payout Ratio, Firm Value.*

## Introduction

Firm value is a fundamental factor that investors should be aware of before deciding to invest in a firm. Firm value is not only the value of equity. It also includes debt, warrant and preferred shares, and all other financial claims (M. C. Jensen, 2001; Smith Jr & Watts, 1992). The purpose of financial management of a firm is to optimize its value. The higher the value of the firm, the more prosperous the shareholders will be (Black, de Carvalho, & Gorga, 2009; Fama & French, 2002; Van Horne & Wachowics, 2004) The optimization of firm value can be achieved through the implementation of proper financial management systems. It should be noted that one financial decision will affect other financial decisions, namely funding, investment and dividend policies, which eventually affect the value of the firm (Gherghina & Vintila, 2016; Sabrin, Sarita, Takdir, & Sujono, 2016). It is important for firms to examine the firm value because it reflects its prospects, investments and the firm's management performance because the firm's main objective is to maximise shareholder prosperity as reflected in its stock price. If the firm's stock price is high, then the value of the firm is also high. Therefore, firm value is an important concept for investors as an indicator to assess the firm's worth (Brigham & Daves, 2014; Habib, Khan, & Wazir, 2016; Paminto, Setyadi, & Sinaga, 2016; Sucuahi & Cambarihan, 2016).

Based on agency theory, companies that separate management functions from ownership functions will be vulnerable to agency conflicts (M. C. Jensen & Meckling, 1976; Shim & Siegel, 1998; S.-M. Lee & Ryu, 2003; Broyles, 2003; Pinto & Augusto, 2014). This is due to the role separation between shareholders as principals and managers as agents, in order to suppress managerial opportunistic actions. As a result, equal managerial ownership becomes a strategy to overcome agency conflicts (Al-Gharaibeh, Zurigat, & Al-Harabsheh, 2013; Basyith, Fauzi, & Idris, 2015; Berle Jr. & Means, 1932; M. C. Jensen & Meckling, 1976; Noradiva, Parastou, & Azlina, 2016; Obasan, B., Shobayo, & L., Amaghionyeodiwe, 2016; Renneboog & Trojanowski, 2005; Sheikh & Khan, 2016). Several studies have examined the positive influence between ownership structure, dividend policy and firm value, as shown by research conducted by Juhandi, Sudarma, Aisjah, & Rofiaty (2013) and Basyith et al., (2015). The results of the study are that stakeholder ownership structure is the determining variable on dividend policy and that the higher the managerial ownership, the higher the value of the firm. These findings indicate that the higher the dividend, the higher the value of the firm; and that the lower the dividend, the lower the value of the firm. In conclusion, this study is consistent with research conducted by Al-Gharaibeh et al., (2013), Driffield, Mahambare, and Pal (2007), and Morck, Shleifer, and Vishny (1988). Based on the above background and the theoretical and research gap (research and theory gap) related to firm value caused by inconsistency in the results of empirical research and theoretical gaps, the main problem and fundamental question answered in this research is, "How does the dividend policy influence company value and does the ownership structure, capital structure and IOS affect the value of the company?". In more

detail some of the research questions that will be answered in this study are: 1) Does the ownership structure affect the value of the company? 2) Does the capital structure affect the value of the company? 3) Does the investment opportunity set affect the value of the company? 4) Does the ownership structure affect the dividend policy? 5) Does the capital structure influence dividend policy? 6) Does the investment opportunity set affect dividend policy? 7) Is there an influence of ownership structure through dividend policy on company value? 8) Is there an influence of the capital structure through dividend policy on company value? 9) Is there an effect of the investment opportunity set through dividend policy on company value? 10) Does dividend policy affect the value of the company?

The company value used in the study uses assessment ratios, namely PER, PBV and Tobin's Q, which aim to find out how much the community respects the company, so that the public or investors are interested in buying shares at a higher price than the book value reflected in the company's value. In connection with the formulation of the problem above, the purpose of this study is to, 1) Test and analyse the influence of ownership structure on firm value, 2) Test and analyse the effect of capital structure on firm value, 3) Test and analyse the effect of investment opportunity set on firm value, 4) Test and analyse the influence of ownership structure on dividend policy, 5) Test and analyse the effect of capital structure on dividend policy, 6) Test and analyse the effect of investment opportunity set on dividend policy, 7) Test and analyse the influence of ownership structure through dividend policy on firm value, 8) Test and analyse the effect of capital structure through dividend policy on firm value, 9) Test and analyse the effect of investment opportunity set through dividend policy on firm value, 10) Test and analyse the influence of dividend policy on firm value.

## Literature Review

The value of the firm, as an investor's perception of the firm, is associated with stock prices when assuming a high stock price increases the value of the firm. The main purpose of the firm is to maximise wealth or corporate value (value of the firm) (Brigham & Gapenski, 1996) and to optimize the value of the firm described to its shareholders (Black et al., 2009; Fama & French, 2002; Van Horne & Wachowics, 2004). Firm value measurement is conducted with *Price Earnings Ratio* (PER), Tobin's Q, and *Price to Book Value* (PBV). The purpose of choosing 3 measures of company value is to find out how much the community values the company, so that the public or investors are interested in buying shares at a price higher than the book value which is reflected in the value of the company. *Price Earnings Ratio* (PER) reflects the value of earnings reflected in the price of a stock to determine the company value of Tobin's Q as a measurement that is able to provide the best and rational information because it includes all elements of debt and share capital of the company and compares the market value of company shares listed on financial markets with asset replacement value. *Price to Book Value* (PBV) is a measure of the comparison between market prices and the book value of

shares. When companies that are running well, the PBV ratio generally reaches above one, which indicates the stock market value is greater than the book value.

Dividend policy is one of the policies of management in determining the profit paid to shareholders in the form of dividends used to finance investments in the future (Fama & French, 2002). Dividend policy is measured by the dividend payout ratio (DPR) by comparing dividends per share with earnings per share (Maldajian & El Khoury, 2014; Rasyid et al., 2015; Giriati, 2016; Priya & Mohanasundari, 2016; Al-Najjar & Kilincarslan, 2018). The following dividend theories were bird in the hand theory, tax preference theory, signalling theory and residual theory.

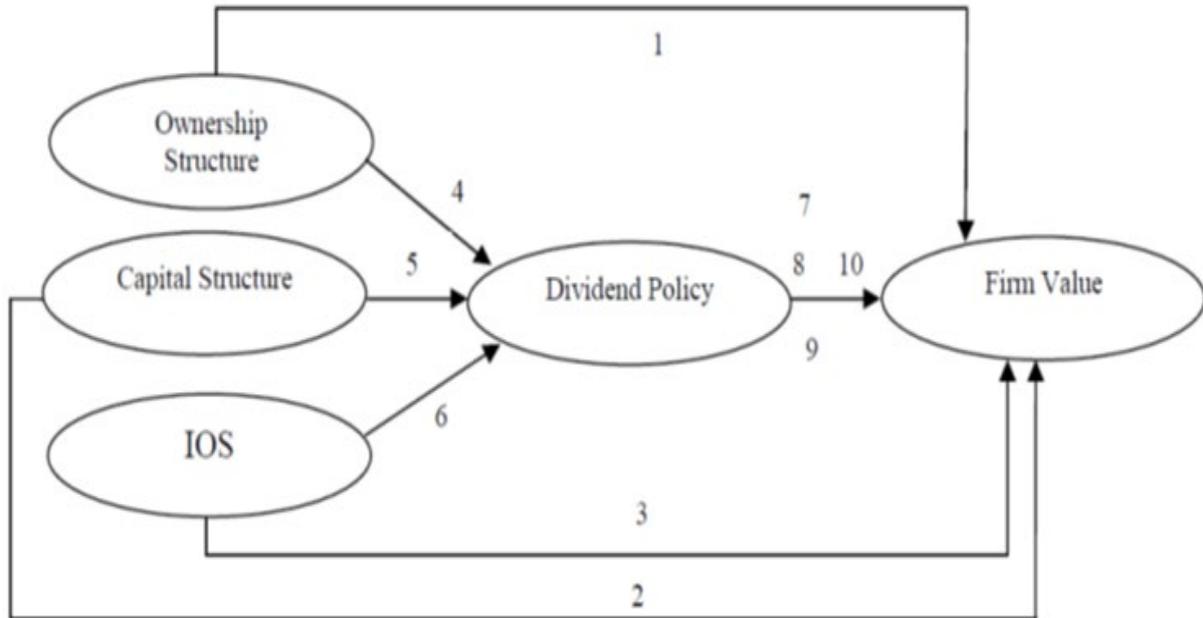
Jensen and Meckling (1976) states that ownership structure consist of three variables, namely: (1) inside equity, (2) outside equity and (3) Debt. The development of ownership structure theory is theory of the Firm, signalling theory and pecking order theory.

The capital structure, as a dividend policy determinant, determines the percentage of dividend distribution because the firm likes financing from the firm's operating results in the form of retained earnings. If it still experiences a lack of capital, the firm will take outside funding by issuing securities, bonds and shares (Myers & Majluf, 1984). The development of capital structure theory is tax preference theory, signalling theory, pecking order theory and static trade-off theory.

Investment opportunity set (IOS) is a term indicating the existence of company investment opportunities in the future. The choice of investment taken by the company is an opportunity for the company to grow. Gaver and Gaver (1993) states that the choice of investment is not only oriented to research and development supported projects but is also indicated by the company's capability in utilizing the investment opportunity to gain profits. Investment opportunity set (IOS) is the base for determining the category of a company, that is, whether the company belongs to the growing category or non-growing category.

The research variables chosen were ownership structure, capital structure, and IOS towards company value with dividend policy as the mediation. This is because the results of the research and the basis of the grand theory used were still inconsistent and contradictory. The research conceptual framework can be represented thus:

**Figures 1.** Research's Conceptual Framework



### Research Hypothesis

Several studies have shown that there is a positive influence on ownership structure on firm value, including (Al-Gharaibeh et al., 2013; Arosa, Iturralde, & Maseda, 2010; Basyith et al., 2015; Noradiva et al., 2016; Obasan et al., 2016; Renneboog & Trojanowski, 2005; Sheikh & Khan, 2016).

**Hypothesis 1:** If managerial ownership increases, the value of the firm increases.

Several studies have shown that there is a positive influence on the structure of firm value, including Chowdhury and Chowdhury (2010), Antwi, Mills, and Zhao (2012), Hoque, Hossain, and Hossain, 2014, Silaban (2017).

**Hypothesis 2:** If the capital structure increases, the value of the firm increases.

Several studies have shown that there is a positive influence of investment opportunity set on firm value, including: Adiputra (2016), Al-Haddad, Al Zorqan, Musa, and Noor (2011), Al-Najjar and Kilincarslan (2018), Lupi and Myint (2017), Smith Jr and Watts (1992), Sulistiono et al., (2017), Wijaya et al., (2017), Yuliani, Djumilah Zain, Sudarma, and Solimun (2012).

**Hypothesis 3:** If the investment opportunity set increases, the value of the firm increases.

Several studies have shown that there is a negative influence on the ownership structure on dividend policy (Abdullah, Ahmad, & Roslan, 2012; Basyith et al., 2015; Ehsan, Tabassum, Akram, & Nasir, 2013; Huda & Abdullah, 2013; Noradiva et al., 2016; Obasan et al., 2016; Rasyid et al., 2015; Ullah, Fida, & Khan, 2012).

**Hypothesis 4:** If managerial ownership increases, the dividend policy decreases.

Several studies have shown that there is a negative influence on capital structure on dividend policy (Allen, 1993; Gowd, 2014; Paminto et al., 2016; Rehman, 2016; Sang, Shisia, Gesimba, & Kilonzo, 2015; Sucuahi & Cambarihan, 2016).

**Hypothesis 5:** If the capital structure increases, it will lower dividend policy.

Several studies have shown that there is a negative influence of investment opportunity set on dividend policy (Adiputra, 2016; Al-Haddad et al., 2011; Al-Najjar & Kilincarslan, 2018; Subramaniam, Devi, & Marimuthu, 2011; Yuliani et al., 2012).

**Hypothesis 6:** If the investment opportunity set increases then it will lower the dividend policy.

Several studies have shown that there is a positive influence on ownership structure and dividend policy on the value of the firm (Basyith et al., 2015; Easterbrook, 1984; Juhandi et al., 2013; Rozeff, 1982).

**Hypothesis 7:** If managerial ownership increases, the value of the firm increases through a high dividend policy.

Several studies have shown that there is an influence of ownership structure and dividend policy on firm value (G. R. Jensen, Solberg, & Zorn, 1992; Myers & Majluf, 1984; Rehman, 2016).

**Hypothesis 8:** If the capital structure increases, the value of the firm increases through a low dividend policy.

Several studies have shown that there is an influence of Investment Opportunity Set and dividend policy on firm value (Adiputra, 2016; Brigham & Houston, 2011; Chang & Rhee, 1990; Savitri, Gumanti, & Ritonga, 2017; Yuliani et al., 2012).

**Hypothesis 9:** If the investment opportunity set increases, the value of the firm increases through a low dividend policy.

Some researchers have shown that there is a positive influence on dividend policy on the value of the firm (Jaafar & Halim, 2016; Monoarfa, 2018; Nasrum & Burhami, 2015; Nwamaka & Ezeabasili, 2017; Oliver & Iniviei, 2016; Rehman, 2016; Sheikh & Khan, 2016; Soewarno et al., 2017).

**Hypothesis 10:** If the dividend policy increases, the value of the firm increases.

Firm Value is the investor's perception of the firm is measured by market value. The ratios used in determining firm value are:

*Price Earnings Ratio (PER)* is the price the buyers are willing to pay if the firm is sold (Afza & Tahir, 2012; Azam, 2010; Hoque et al., 2014; Kumar & Warne, 2009), it is determined by formula:

$$PER = \text{Price per Share} / \text{Earning per Share}$$

Tobin's Q is the market value of a firm by comparing the market value of a firm listed in the financial market with the value of replacing firm assets (Brigham & Daves, 2014; Farooq & Masood, 2016; Hamyat, Sarita, Hasbudin, & Sujono, 2017; Hassan & Afza, 2016; Priya & Mohanasundari, 2016; Setiyawati et al., 2017; Sucuahi & Cambarihan, 2016; Sulistiono et al., 2017). It is determined by formula: Tobin's Q = (MVE + DEBT)/TA.

*Price to Book Value (PBV)* is a comparison between market prices and book value per share (Hartono, 2003; Priya & Mohanasundari, 2016; Shibuya & Takeuchi, 1998; Weston & Copeland, 1999). It is determined by the formula: PBV = Share Price / Book Value Per Share.

Dividend policy is measured by dividend payout ratio (DPR) proxy and is the policy of firm management in determining the profit available to shareholders (Jaafar & Halim, 2016; Oliver & Iniviei, 2016; Rehman, 2016; Setiyawati et al., 2017; Sheikh & Khan, 2016; Soewarno et al., 2017). It is determined by the formula:

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}} \times 100\%$$

Ownership structure with a proxy for managerial ownership (Al-Gharaibeh et al., 2013; Basyith et al., 2015; Noradiva et al., 2016; Obasan et al., 2016; Sheikh & Khan, 2016), is determined by the formula:

$$\text{Managerial Ownership} = \frac{\text{Managerial Company's shares}}{\text{Total shares}}$$

Modigliani-Miller (MM) in their theory (1958) states that any type of fund (with certain assumption) is not relevant to the firm value. Capital structure is a balance or combination of foreign capital and owned capital using debt to equity ratio proxy (Antwi and Mills, 2012; Vinothini and Paviththira, 2015). The Capital Structure uses long term debt to total equity ratio (DER), it is determined by the formula:

$$\text{Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Total Equity}}$$

*Investment opportunity set* (IOS) is a combination of assets owned by the firm (assets in place) and investment selection in future proxies through market to book value of asset ratio (Al-Najjar & Kilincarslan, 2018; Lupi & Myint, 2017; Sotya, Haryono, Djuminah, & Bandi, 2017; Sulistiono et al., 2017; Wijaya et al., 2017). The IOS proxy used is MBVA ratio, it is determined by the formula:

$$\text{Market to Book Value of Asset Ratio} = \frac{(\text{Total Asset} - \text{Total Equity}) + (\text{Total Shares} \times \text{Closing Price})}{\text{Total Asset}}$$

## Research Methods

The approach used here is a causal method with data pooling combining time series and cross-sectional data. The population size of this research consisted of 151 manufacturing companies listed on the Indonesia Stock Exchange that operated between 2012 and 2016. Companies chosen in the observation period had distributed dividends and had managerial ownership of 32 companies for 5 years which equates to 160 firm years. The sampling technique used in this study was a purposive sampling technique, namely sampling based on certain considerations or criteria in accordance with the objectives of the study (Cooper and Emory, 1999: 245), using data merging techniques (pooling data) between cross sections and time series.

## Research Results

Direct Influence of Ownership Structure, Capital Structure, IOS, and Dividend Policy on Firm value is presented in table 1 below:

**Table 1:** Direct Influence of Ownership Structure, Capital Structure, IOS, and Dividend Policy on Firm value

No	Direct Influence	Path Coefficient	t-Statistic	Sig.	Information
<b>A. Company Value with Proxy Price Earnings Ratio (PER)</b>					
1.	Ownership Structure of Corporate Values	-0,055	-1,279	0,028	<b>Significant</b>
2.	Capital Structure of Corporate Values	0,152	1,684	0,045	<b>Significant</b>
3.	Investment Opportunity Set for Corporate Values	0,447	2,541	0,017	<b>Significant</b>
4.	Dividend Policy on Company Value	0,058	0,256	0,800	<b>Not Significant</b>
<b>B. Company Value with Proxy Tobin's Q</b>					
1.	Ownership Structure of Corporate Values	0,032	3,473	0,026	<b>Significant</b>
2.	Capital Structure of Corporate Values	-0,088	-3,134	0,046	<b>Significant</b>
3.	Investment Opportunity Set for Corporate Values	0,968	7,127	0,000	<b>Significant</b>
4.	Dividend Policy on Company Value	-0,003	-0,043	0,966	<b>Not Significant</b>
<b>C. Company Value with Proxy Price Book Value (PBV)</b>					
1.	Ownership Structure of Corporate Values	-0,099	-4,898	0,037	<b>Significant</b>
2.	Capital Structure of Corporate Values	-0,096	-3,764	0,045	<b>Significant</b>
3.	Investment Opportunity Set for Corporate Values	0,863	6,724	0,000	<b>Significant</b>
4.	Dividend Policy on Company Value	-0,049	-0,387	0,702	<b>Not significant</b>

From Table 1, it can be seen that a significant direct effect (significance value  $<0.05$ ) is generated by ownership structure, capital structure and IOS on firm value, while dividend policy has no significant effect of 0,800 (significance value  $> 0,05$ ) firm by Price Earnings Ratio (PER), Tobin's Q and Price Book Value (PBV). Indirect Effects of Ownership Structure, Capital Structure, IOS, and Dividend Policy on Firm value.

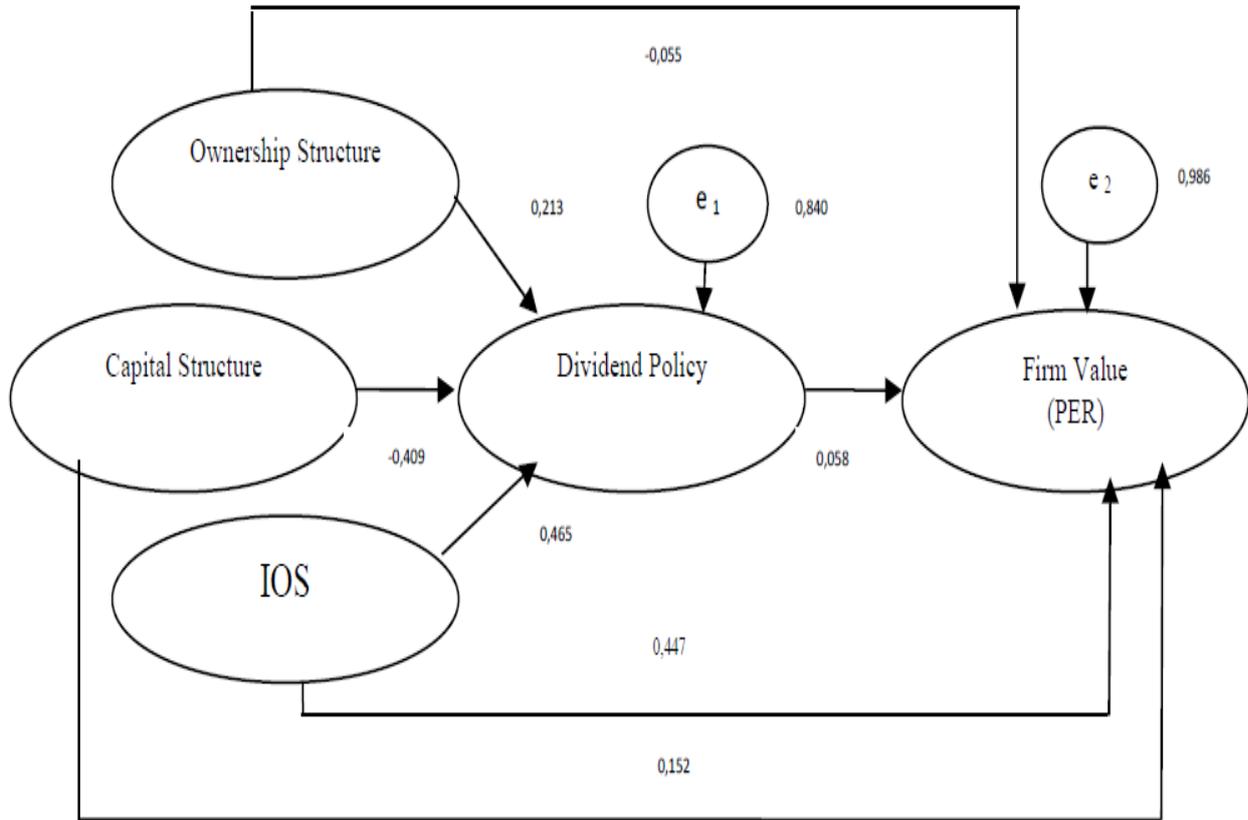
**Table 2:** The Indirect Effect of Ownership Structure, Capital Structure and IOS on Firm value through Dividend Policy

No	Indirect Effects	Path Coefficient for Exogenous Variable with KD	Path Coefficient for KD against NP	Regression Coefficient	Sig.	Information
<b>A. Company Value with Proxy Price Earnings Ratio (PER)</b>						
1	Ownership Structure of Corporate Values through Dividend Policy	0,213	0,058	0,012354	0,028	Significant
2	Capital Structure of Corporate Values through Dividend Policy	-0,409	0,058	-0.023722	0,500	Not Significant
3	Investment Opportunity Set against Company Values through Dividend Policy	0,465	0,058	0.02697	0,017	Significant
<b>B. Company Value with Proxy Tobin's Q</b>						
1	Ownership Structure of Corporate Values through Dividend Policy	0,213	-0,003	-0,000639	0,026	Significant
2	Capital Structure of Corporate Values through Dividend Policy	-0,409	-0,003	0.001227	0,267	Not Significant
3	Investment Opportunity Set against Company Values through Dividend Policy	0,465	-0,003	-0.001395	0,000	Significant

<b>C. Company Value with Proxy Price Book Value (PBV)</b>						
1	Ownership Structure of Corporate Values through Dividend Policy	0,213	-0,049	-0,010437	0,037	Significant
2	Capital Structure of Corporate Values through Dividend Policy	-0,409	-0,049	0,020041	0,452	<b>Not Significant</b>
3	Investment Opportunity Set against Company Values through Dividend Policy	0,465	-0,049	-0,022785	0,000	Significant

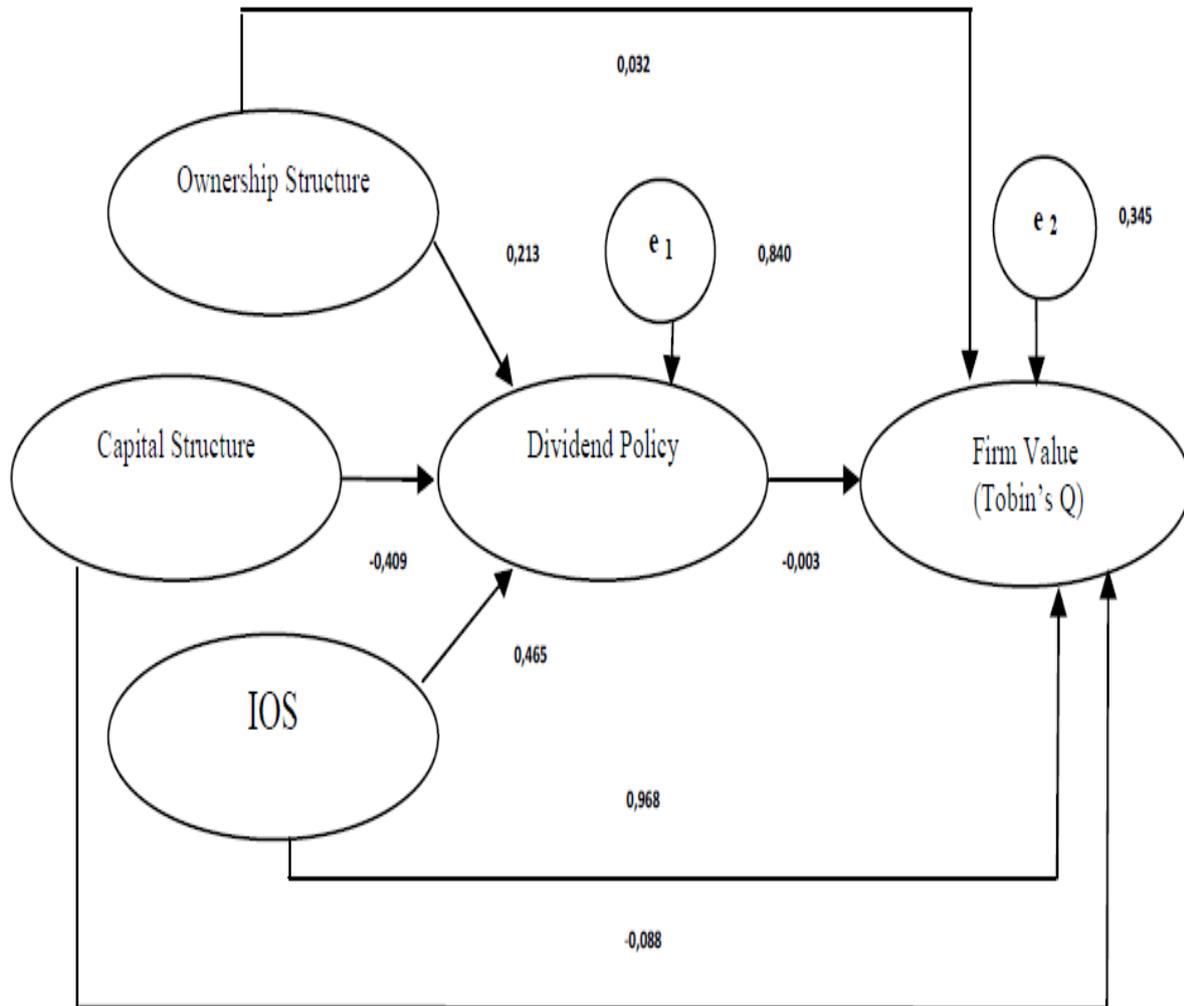
Based on Table 2, a significant indirect effect is generated (significance value  $<0.05$ ), namely ownership structure and IOS on firm value through dividend policy, while capital structure has an indirect effect, which is insignificant on firm value through dividend policy. The results of the analysis both directly and indirectly effects exogenous variables on endogenous variables, namely the firm Value measured by PER, which are presented in Figure 2 below:

**Figure 2.** Analysis Results of Exogenous Variable to Endogenous Variables, namely Firm Value measured by Price Earnings Ratio (PER)



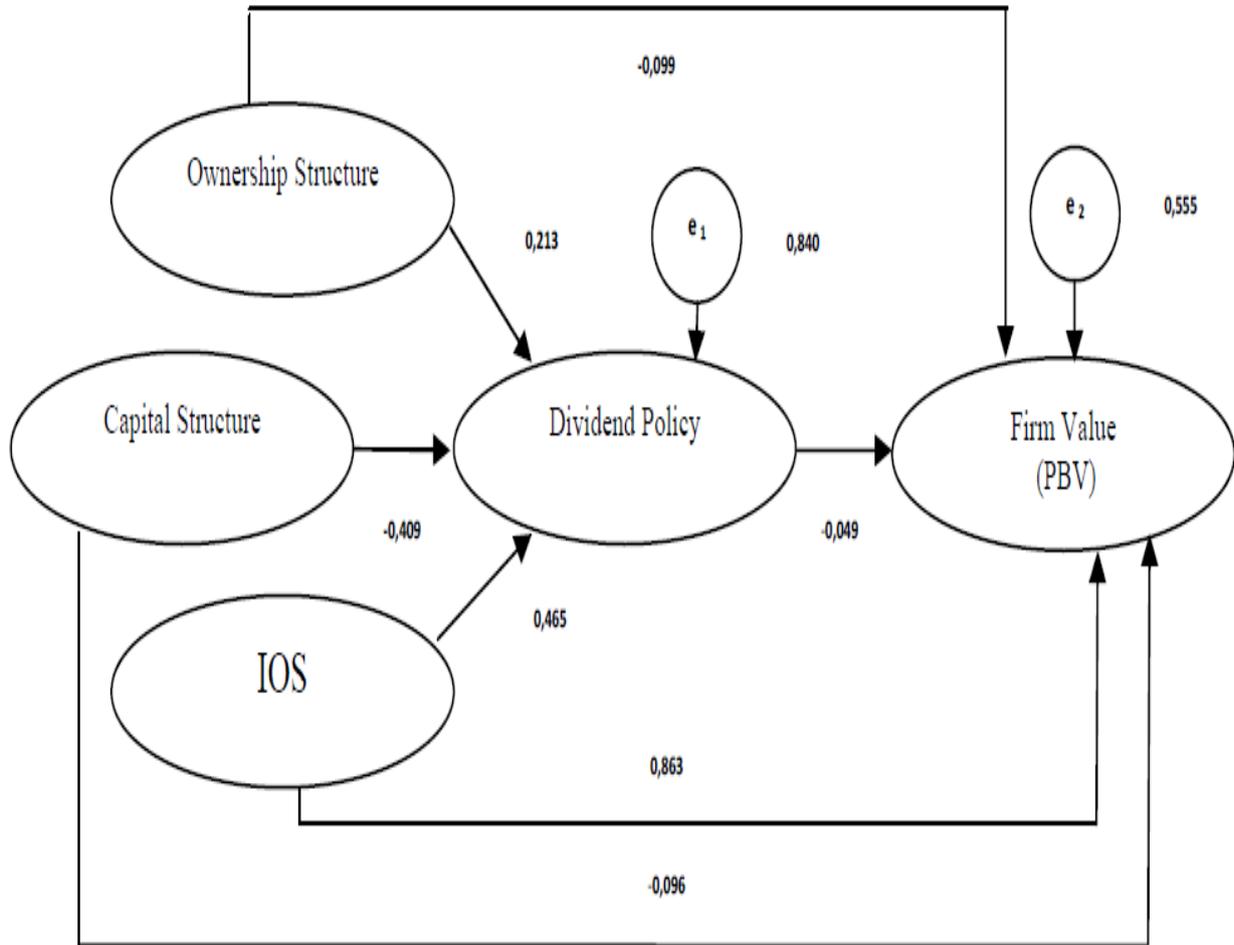
Analysis of results of both direct and indirect effects of exogenous variables on the endogenous variables, namely firm Values measured by Tobin's Q, are presented in Figure 3 below:

**Figure 3.** Analysis Results of Exogenous Variable to Endogenous Variables namely Firm Values Measured by Tobin's Q



The effects of pathogenic variables on endogenous variables, namely Firm Values measured by PBV, are presented in Figure 4 below:

**Figure 4.** Analysis Results of Exogenous Variable on Endogenous Variables namely Firm Values measured by PB



The Coefficient of Determination ( $R^2$ ) is used to measure how far the ability of the model explains the variation of dependent variables.

**Table 3:** Analysis Results of Coefficient of Determination

No	Variable Independent	Variable Dependent	R Square
1	Ownership Structure	Dividend Policy	0,295
	Capital Structure		
	<i>Investment Opportunity Set</i>		
2	Ownership Structure	Firm Value (PER)	0,028
	Capital Structure		
	<i>Investment Opportunity Set</i>		
	Dividend Policy		
3	Ownership Structure	Firm Value (Tobin's Q)	0,881
	Capital Structure		
	<i>Investment Opportunity Set</i>		
	Dividend Policy		
4	Ownership Structure	Firm Value (PBV)	0,692
	Capital Structure		
	<i>Investment Opportunity Set</i>		
	Dividend Policy		

**Source:** Secondary data processed with SPSS 23

The total coefficient of determination is calculated as follows:

$$R^2_M = 1 - P^2_{e1}P^2_{e2}P^2_{e3}P^2_{e4}$$

$$R^2_M = 1 - 0,051 = 0,949$$

Based on the total calculation of the coefficient of determination (R<sup>2</sup><sub>M</sub>), 94.9% indicates that almost all the information needed can be explained by a model valued at 94.9%, while the remaining 5.1% is another variable not included in the research model. It is consistent with Solimun's statement (2011: 133) that the total coefficient of determination is between 0% - 100%, and thus affirms that the research model is good.

## Discussion

As ownership structure increases, the value of the firm increases. This indicates that an increase in the proportion of firm shares owned by management encourages the manager to work optimally. Managers improve the welfare of the owner as well as themselves through a managerial share ownership structure. Better performance is reflected in the increase in the firm value. The level of managerial ownership from the results found in the study is less than 5%, yet a high proportion of these managers tend to control the firm's decision making, although Indonesian Republic's Law No. 40 of 2007 Article 144 specifically states the board of directors, board of commissioners, or one or more shareholders should have 10% of the total

shares to enable voting rights to control the firm. This condition is not in line with Morck, Shleifer and Visney (1988), who find a negative influence at the level of 05-25% between managerial ownership of company value and a positive influence at the level of 25-30% and negative at the level > 50%. The use of theory of the firm (Jensen and Meckling, 1976) is relevant to the results of the study because there is an influence of ownership structure on the value of the company, thus proving that there is an agency relationship that is a contract between the owner / shareholder (principal) with the manager (agent), manager and creditor and majority shareholders with minority shareholders.

When capital structure increases, the value of the firm also increases. That use of debt in the capital structure signals to the market that the firm manager is confident in the firm's prospects and aims to increase the value of the firm. Managers who are able to manage debt give a more credible signal to the market that the companies' prospects bode well for the future. As result, the value of the firm will increase too. Investors and creditors in Indonesia are attuned to these positive signals as they give confidence that these companies have abundant resources and funds and therefore have sound future prospects. The results of this study are consistent with the statement of Brigham and Daves (2014), who suggests that the optimal capital structure is a structure that maximises the value of the company, and are in line with the statement of Modigliani and Miller (1963) that capital structure is an important consideration for investors in investing so that the capital structure will affect the price of shares and affect the value of the company.

As the investment opportunity set increases, the value of the firm increases. Every investment expenditure sends a positive signal to the market about the firm's potential growth and development, which positively impacts the value of the firm. IOS as an investment decision indicator is carried out by a firm. It contains information about the firm's prospects that have been responded to positively by shareholders. Investors' trust in Indonesian manufacturing companies in this research sample reflects high current investment decisions, which causes a rising demand for shares in the manufacturing sector in Indonesia. The results of this study are in line with the opinion of Fama and French (2002), who state that the value of the company is solely determined by investment decisions. Companies that get bigger over time will be able to create positive investor sentiment, so that share prices rise and will eventually be able to increase the value of the company (Adiputra, 2016; Wijaya, et al., 2017).

Ownership structure does not have a significant influence on the dividend policy taken by the firm. With the absence of strong evidence, the ownership structure's influence on dividend policy gives an indication that companies with a high portion of managerial ownership are proven to have no impact on dividend policy, because managers who have ownership shares only have a small share (less than 25%). The average value of managerial ownership in this study is less than 5%. This condition diminishes the potential agency problems between

management and shareholders. Therefore, the monitoring mechanism does not work properly. Managerial ownership does not affect the company's dividend policy (Ullah, Fida, and Khan, 2012; Abdullah, Ahmad and Roslan, 2012; Ehsan, et al., 2013; Rasyid, et al., 2015; Noradiva, et al., 2016).

Capital structure does not have a significant effect on dividend policy within the firm; this is because companies that require a large source of funding from debt to finance operational activities tend to hold cash flows and earnings to pay their debt liabilities. Managers generally prefer to use financing by holding back profits, followed by having debt and eventually selling new shares so that they are in accordance with the hierarchy as outlined in pecking order theory. Theoretically, the cheapest source of capital is debt, so companies prefer to use debt in their capital structure. The use of high debt is justified as long as economic profitability is greater than the interest rate, so the use of debt for public companies can be used to signal the market without any connection to dividend policy. The results showed the capital structure is negative towards dividend policy when the company's income is higher than the financial costs that must be paid for the lender, so that if there is an increase in capital structure, it will reduce the dividend policy. (Sang, et al., 2015 and Rehman, 2016).

*The investment opportunity set* does not have a significant effect on the dividend policy taken by the firm. The results indicate that managers in manufacturing companies listed on the Indonesia Stock Exchange with high investment opportunities tend to allocate cash flows or profits to fund investment programs rather than to distribute the dividend. Therefore, managers are more oriented towards investment development and growth to signal that the firm has good prospects for the future. The application of signalling theory on manufacturing companies listed on the Indonesia Stock Exchange from the research samples illustrate the importance of increasing high investment opportunities, so that investors become aware of the signs of firm future prospects so they will invest in the firm. The results of this study contradict the results of previous studies, namely that of Subramaniam and Marimuthu (2011). Companies that have high growth tend to pay lower dividends, while low company growth will pay higher dividends. Another study, Adiputra (2016), stated that IOS has a negative effect on debt funding policy, so an increase in IOS will reduce dividend policy.

Dividend policy can mediate the influence of ownership structure on the value of the firm, so that if managerial ownership increases, the value of the firm increases through a high dividend policy. The alignment of the interests of firm owners and managers, especially in the form of increased managerial ownership, will increase the value of the firm through a low dividend policy. Managers who have capital as well as shareholders will increase the value of the firm because by increasing the value of the firm, the value of its wealth as a shareholder will also increase in the form of dividend distribution. The results of the study are consistent with the theory of the firm (Jensen and Meckling, 1976), which sees companies as a collection of

contracts (nexus of contracts) between the owners of economic resources (principal) and managers (agents), who take care of the use and control of these resources, to suppress actions, opportunistic managers or conflicts that occur between company owners and managers.

Dividend policy does not mediate the influence of the capital structure on the value of the firm. This means that the capital structure is more effective when directly affecting the value of the firm than when mediated by dividend policy. The capital structure measured by the debt equity ratio (DER) explains the greater the costs that must be incurred by the firm to finance the debt, the more profit distribution is absorbed to pay off long-term liabilities. Consequently, the firm's next focus is payment of obligations in the form of debt instalments and interest expenses and maintaining the stability of the firm's financial performance, rather than focusing on dividend distribution. The results show that manufacturing companies in Indonesia are oriented by the pecking order theory hierarchy (Myers and Majluf, 1984; Brealy and Myers, 1991), so they tend to adjust the targeted dividend distribution ratio by trying to avoid drastic changes in dividend payments due to the decision to pay dividends. The consequence of this is that the amount of profit in hold is reduced.

Dividend policy influences the IOS on firm value. The research results indicate dividend policy plays a mediating role in explaining the relationship between IOS and firm value. Increasing IOS will increase the value of the firm through a low dividend policy. It is because investment decisions made by management will affect the perspective of investors and firm owners. So, investment decisions through IOS are positive signals given by management to investors, leading investors to respond positively to decisions investment because they expect a much greater return because of the increase in the value of the firm. There is an inverse influence between the size of the investment and the expected rate of return if a company has a profitable investment opportunity. In this case, the company tends to produce a target of a low dividend payout ratio (Myers and Majluf, 1984; Brigham and Daves, 2014). This happens because companies with high growth opportunities will need more funds for expansion, thus supporting pecking order theory (Adiputra, 2016 and Savitri, 2017).

Dividend policy does not have a significant effect on the value of the firm, it indicates that the ratio of dividend payments is only a breakdown of firm policy and does not affect the value of the firm. The absence of strong evidence, from the research results on the effect of dividend policy on firm value, gives an indication that the firm's value will be determined by the firm's ability to generate profits, business risk, level of investment opportunities, and to manage debt to fund the firm's operational activities. The results of this study are not in accordance with the theory of bird in the hand theory (Lintner, 1956 and Gordon, 1959) which sees shareholders as wanting relatively high dividend payments. It also proves that current shareholders in Indonesia have begun to shift their orientation from getting dividends towards capital gains.

## Conclusion

The influence of ownership structure on company value is significant. This indicates that an increase in management ownership has been able to encourage or motivate managers to increase company value. The influence of the capital structure on firm value is significant. This indicates that the capital structure through the use of debt is a signal or sign conveyed by the company manager to the market, so increasing the use of debt can be situate a company as confident in its future prospects. The influence of IOS on the value of the company is significant. This indicates that the management of the company is able to maintain the growth of investment in order to achieve company goals, namely maximising the welfare of shareholders that influence the increase in company value. The influence of the ownership structure on dividend policy is not significant because the existence of managers who have a portion of managerial ownership only has a small portion of shares so that it does not have the majority right to determine dividend policy. The influence of capital structure on dividend policy is not significant because companies that have high debt levels tend to minimize dividend payments to all shareholders because most of the profits obtained are allocated to the reserve fund for repayment of debt so that they can prevent the risk of bankruptcy. The influence of IOS on dividend policy is insignificant because companies that have high investment opportunities tend to allocate cash flow or earnings to be funded to fund investment programs as a positive signal regarding the company's future growth. The influence of ownership structure on firm value by mediating dividend policy is significant. This indicates that the market reacts positively with an increase in managerial ownership that influences the increase in firm value mediated by dividend policy. The influence of capital structure on the value of the company by mediating dividend policy is not significant. This indicates that the capital structure is very sensitive to changes in the value of the company: the higher the proportion of debt, the higher value of the company. This is reflected in the increase in debt to reduce the dividend distribution ratio because companies must allocate debt repayment reserves taken from internal funds, namely retained earnings. The influence of IOS on company value by mediating dividend policy is significant. This indicates that the high debt in the capital structure owned by the company is considered not too high risk. As a result, the retained earnings distribution or cash flow is increasingly absorbed to pay off long-term liabilities. The effect of dividend policy on firm value is not significant. This indicates the dividend payout ratio is only a breakdown of the proportion of profits and does not affect the value of the company, while proving that shareholders begin to shift in orientation from dividends to capital gains that require relatively little waiting for dividend distribution.



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