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# Managerial opportunistic behavior and firm value: Empirical study of manufacturing companies in Indonesia

# Jeudi Agustina TP Sianturi<sup>a\*</sup>, Sugeng Wahyudi<sup>b</sup>, Irene Rini Demi Pangestuti<sup>b</sup> and Mohamad Nur Utomo<sup>c</sup>

<sup>a</sup>Program of Finance at Diponegoro University, Semarang, Indonesia <sup>b</sup>Faculty of Economics and Business, Diponegoro University, Semarang, Indonesia <sup>c</sup>Faculty of Economic, Borneo Tarakan University, Tarakan, Indonesia

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# ABSTRACT

This paper aims to investigate the relationship between managerial opportunistic behavior and the value of manufacturing companies listed on the Indonesia Stock Exchange, using two different indicators of company value. The first indicator looks at the value of the company from a less than ideal size and other indicators view the value of the company from the ideal size. By using 320 observations, the results of this study found evidence that managerial opportunistic behavior that is proxied by free cash flow plays a role in influencing the overvalued equity proxied by market books. Likewise, free cash flow plays an important role on influencing Tobin q. This study also establishes an indirect relationship of free cash flow to overvalued equity and Tobin q which is mediated by dividend policy. Empirical results show that dividend policy mediates the effect of free cash flow on overvalued equity and also Tobin q partially.

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# 1. Introduction

Agency relationship is a contract between the manager (agent) and the shareholders (principal) which clearly states what is the rights and obligations of both parties. If the agent does not always act in accordance with the interests of the principals, it will cause a conflict (Jensen & Meckling, 1979). One impact of the conflict is the emergence of managerial opportunistic behavior. Previous literature states that managers have the potential to take opportunistic actions when companies have high free cash flow surpluses (Ross, 1973; Jensen, 1986; Gul & Tsui, 2001), where the availability of free cash flow tends to be allocated into unprofitable investments. Opportunistic behavior from the use of free cash flow can reduce the efficiency of company management, which in turn has an impact on growth rates and low company value. To overcome managerial opportunistic behavior, the company will incur a cost called agency costs. These costs are not insignificant, so companies must be able to reduce them by monitoring, contracting and bonding (Jensen & Meckling, 1979). In addition to these three ways, Jensen (2005) provides the view that agency cost minimization can be achieved through overvaluation. Overvaluation basically shows the size of the value of the company that is overvalued, and if left unchecked in the long run will cause the company to go bankrupt. This situation arises as a consequence of a system that has been damaged and supported by managerial opportunistic behavior. High company value should be a positive thing for the company because this condition means it shows the good performance of management in managing the company. However, overvaluation is considered to provide a negative perspective because the high value of a company does not reflect its intrinsic value. \* Corresponding author.

E-mail address: juediagustina.undip@gmail.com (J. A. T.P. Sianturi)

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Initially, when the company's value is high, it gives a positive signal to investors and raises the manager's reputation. However, when it gets higher and managers begin to realize that the high value of the company is too far from its intrinsic value, the manager becomes difficult to justify what has happened. As a result, managers can only surrender themselves and engage more deeply in the formation of substantial overvaluation. Under such conditions, shareholders and also the public who own company shares will suffer a very large loss. This situation can be illustrated by someone who uses heroin and feels "happy" at first. However, when it has been ensnared deeper or addicted then what happens will provide a suffering that results in death (Jensen, 2005). Likewise, companies whose share prices are overvalued. If it has not been repaired and complacent in quite a long time, it will fall into a bankruptcy situation. Based on the above phenomenon, this study covers several objectives. First, investigate the effect of free cash flow on overvalued equity that is proxied by market books on manufacturing companies on the Indonesian stock exchange. From the observations, not many have examined the effect of free cash flow on overvalued equity which is a measure of less than ideal company value. Second, analyzing the role of dividend policy as a bonding mechanism in the relationship of free cash flow with overvalued equity which is expected to reduce the occurrence of too high company value. Third, investigate the effect of free cash flow on firm value which is proxied by tobin q as an ideal measure of firm value. Fourth, analyze the role of dividend policy as a mediator in the relationship of free cash flow with tobin q. It is predicted that free cash flow can increase dividend payments and in the next stage dividend payments will reduce the formation of company values that are too high and can simultaneously increase company value. Therefore, this study is intended to answer research questions: 1) Does free cash flow affect the value of the company which is proxied by the market book and tobin q; 2) Does free cash flow affect dividend policy in terms of dividend payments ?; 3) Can dividend payments reduce the formation of company values that are too high ?; 4) Whether dividend payments can increase the value of the company in an ideal size; 5) Does the dividend policy mediate the effect of free casf flow on firm value? Empirical results of this study contribute to several things. First, adding support to agency theory that explains dividend policy can be used to reduce problems related to asymmetric information that triggered the birth of managerial opportunistic behavior. Dividend policy can also play a role as a bonding mechanism that can reduce cash flow under management control so as to reduce agency problems. Second, it provides empirical support to previous research that analyzes managerial opportunistic behavior problems (Ghazali et al., 2015). Third, it is still rare in Indonesia to examine the impact of managerial opportunistic behavior on firm value proxied with two different types of measures at the same time.

This study is divided into five parts. The first part is the introduction. The second part outlines the literature review and hypothesis development. The third part explains the method. The fourth part is the presentation of empirical results. The last part is the conclusion and direction for further research.

#### 2. Literature Review and Hypothesis Development

Based on the agency theory framework (Jensen and Meckling, 1979) which states that managers will try to maintain the condition of overvaluation so that it adds to the conflict of interest that previously existed between principals and agents. This motivation is a manifestation of managerial opportunistic behavior to fulfill personal interests in the form of bonus contracts and stock options (Watts & Zimmerman, 1990). Therefore, managers will try to meet and try to exceed the predictions of analysts and market expectations in order to display an equity performance that seems to look good, but the company's market value will be overvalued. This is consistent with the overvalued of equity hypothesis which suggests that managers will create value to maintain the condition of overvalues through earnings management which is one element of managerial opportunistic behavior (Jensen, 2005). Free cash flow (FCF) is an element of managerial opportunistic behavior because it can be used by managers for personal gain by allocating free cash flow to projects that do not generate positive NPV. As the FCF hypothesis suggests that managers use FCF to invest in projects with negative NPV and the investment is done not in the interests of shareholders (Jensen, 1986, 1989, 1993). Some researchers (Rozeff, 1982; Easterbrook, 1984; DeAngelo and DeAngelo, 2000; La Porta et al., 2000) have proven this and support the FCF (free cash flow) hypothesis. Likewise, Denis et al. (1994) who provide the same conclusions. Titman et al. (2004) and Fairfield et al. (2003) also found that poor stock performance occurred in companies that made a number of large-scale investments. In other words, managers tend to make unnecessary expenses that are in line with the interests of agents (Kadioglu & Yilmaz, 2017). Other researchers state that companies with excess FCF will cause future performance to be low (Dechow et al., 2008). Based on the literature and empirical findings that have been described previously, it can be stated that there is a causal relationship between managerial opportunistic behavior towards firm value seen from two different measures, namely: overvaluation and tobin q. Therefore, it can be hypothesized:

 $H_{1a}$ : Managerial opportunistic behavior influences the value of the company which is proxied by overvaluation.  $H_{1b}$ : Managerial opportunistic behavior influences the value of the company which is proxied by tobin q.

Agency problems that occur will cause a decrease in the value of the company so that solutions must be sought immediately. In order to overcome or reduce agency conflict, it triggers agency costs to be borne by both principals and agents. Jensen and Meckling (1979) divide agency costs into monitoring costs, bonding costs, and residual loss. One of these agency costs is bonding costs, which are costs that must be borne by the agent in establishing and complying with mechanisms that can guarantee that the agent will act in the interests of the principal. This bonding mechanism is a supervisory mechanism which includes corporate governance, debt policy and dividend policy.

Dividend policy is a policy that concerns the profit sharing decision to be distributed to shareholders and to be retained or returned to the company. Agency theory explains that dividend payment is one way to reduce problems related to information asymmetry. In addition, dividends can also play a role as a mechanism that is able to reduce cash flow that is under management control (Fairchild, 2010). In other words, dividend payments will help reduce agency problems by eliminating the possibility of substantial cash flows for the use of agents, for their own sake (Khan et al., 2013). The FCF hypothesis explains that managers tend to be reluctant to withdraw debt or pay dividends because it will reduce the FCF that is under the control of managers. When funds under management policy can be reduced it will become a force that can encourage managers to enter the capital market more frequently so that ultimately managers will be under the strict supervision of capital suppliers (Rozeff, 1982; Easterbrook, 1984). Other researchers have empirically shown why companies must pay dividends to overcome agency problems (Rozeff, 1982; Lloyd et al., 1985). This shows that dividends can help to oversee agents and create a disciplinary mechanism without the direction of intervention from shareholders (Kadioglu & Yilmaz, 2017). Based on the literature and empirical findings previously described, it can be stated that there is a causal relationship between managerial opportunistic behavior towards dividend policy. Therefore, it can be hypothesized:

#### H<sub>2</sub>: Managerial opportunistic behavior influences dividend policy.

Agency cost theory explains the reasons and why dividend payments have different patterns. The theoretical argument states that the company pays dividends so that managers can maximize the value of the company by reducing agency costs that arise as a result of the separation of ownership and control. Dividend payments also aim to minimize the costs of monitoring managers (Jensen and Meckling, 1979). The free cash flow hypothesis explains that if a company has free cash flow (FCF), it is better to distribute it to shareholders in the form of dividends to reduce waste so that later it will be able to increase the value of the company (Jensen, 1986). In its implementation, most companies make dividend payments to cover company performance that is less than the maximum, so managers force themselves to continue to pay dividends even though the company is in an unfavorable situation. This action can create a company value that is too high, because the signal given by the manager gives a different meaning to shareholders. While from an investor perspective, dividend payments are seen as an indicator of good company performance. However, basically dividend payments do not fully reflect the actual signal regarding the company's performance. Based on the literature and empirical findings that have been described previously, it can be stated that there is a causal relationship between dividend policy and firm value which is proxied by two different measurements. Therefore, it can be hypothesized:

H<sub>3a</sub>: Dividend policy affects the value of the company which is proxied by overvaluation.

H<sub>3b</sub>: Dividend policy affects the value of the company proxied by Tobin q.

Agency theory states that dividends are a mechanism that managers can use to reduce costs in an agency relationship. Greater dividend payments can reduce internal cash flow under management control and condition management to attract external funding as an alternative funding. As a result, dividend payments will be able to be used as a tool to monitor and account for management performance. Therefore, dividend policy as a bonding mechanism can be argued to have a role in mediating excessive FCF, so as to reduce managerial opportunistic behavior that can lead to increased company value and minimize overvalued equity. Previous empirical studies suggest that dividends play a role in minimizing agency costs in companies controlled by managers (Rozeff, 1982). This empirical result shows a negative relationship between dividend payments and the percentage of insiders. Meanwhile, a lower percentage of outsiders will have an impact on the less need to pay dividends in an effort to reduce agency costs. Furthermore, dividend payments are one way to reduce agency cost of equity because the conflict between management and shareholders will be reduced. Dividend payments show that management manages the company well and can be a positive signal for shareholders to reinvest in the company (Rozeff, 1982). Other empirical studies (Crutchley & Hansen, 1989; Moh'd et al., 1995) conclude that managers create financial policy gaps by paying dividends to monitor agency costs. In addition, dividend payments can reduce the sources of funds controlled by managers, thereby reducing the power of managers. Therefore, dividend payments are similar to monitoring the capital market that occurs when companies obtain new capital from external parties, thereby reducing agency costs (Rozeff, 1982; Easterbrook, 1984). Thus, dividend payments indicate the transfer of wealth from debtholders to shareholders (Riding, 1994), because managers tend not to like dividend payments, and conversely shareholders prefer dividend payments over reinvestment (Jensen, 1986). Based on the available literature and empirical findings, it can be argued that there is a mediating effect of dividend policy in the relationship of managerial opportunistic behavior to the firm's value which is proxied by overvalued equity and tobin q. Therefore, it can be hypothesized:

 $H_{4a}$ : Dividend policy mediates the effect of managerial opportunistic behavior on the value of the company which is proxied by overvaluation.

H4b: Dividend policy mediates the effect of managerial opportunistic behavior on the value of the company proxied by Tobin q.

# 3. Research Methods

## 3.1 Sampling

The population used includes all manufacturing companies listed on the Indonesian stock exchange, with an observation period from 2010 to 2017. It is expected that the observation time span of 8 years will be able to describe the existing

phenomena. The sampling technique uses purposive sampling with criteria, namely: 1) the company publishes annual reports consistently from 2010 to 2017; 2) the company has information relating to the measurement of the variables used in this study. Based on the sample criteria, 40 companies were obtained, bringing the total observations to 320 observations. Data sources were obtained from the Indonesian Capital Market Directory (ICMD) and the Blomberg Finance Database.

3.2 Operational definitions and measurement of variables

# 1. Managerial opportunistic behavior

It is the behavior of managers who act in the best interests of themselves and not in the best interests of shareholders. In this study, managerial opportunistic behavior is proxied by free cash flow (FCF) which refers to previous researchers (Ghazali et al., 2015). The FCF data in this study were obtained from the Blomberg Finance Database.

2. Dividend policy

Is the company's net profit distributed to shareholders in the form of dividends. The measurements used refer to previous studies (Mollah et al., 2000; Ahmed et al., 2002; Panno, 2003; Mitton, 2004; Deshmukh, 2005; Eldomiaty et al., 2005; Ju et al., 2005; Tong & Green, 2005; Faulknder et al., 2006; Jun et al., 2006; Silveira & Barros, 2007), which are as follows:

$$DPR = \frac{DPS}{EPS}$$

where, DPR is a dividend payout ratio, DPS is dividend per share, and EPS is earnings per share.

3. Overvaluation

Is the company's stock price higher than the value of the underlying company (Jensen, 2005). This variable was measured by referring to previous researchers (Rhodes-Kropf et al., 2005), which are as follows:

Market book = 
$$\frac{Market \ value}{Book \ value}$$

where, market book is market value, market value is market value, and book value is book value.

4. Company Value

Is the selling value of a company as a business that is reflected in the value of debt and equity securities. This company's value is an illustration of people's trust in the company after going through a process of activities for several years. This company value is known as tobin q. The tobin q formula refers to previous researchers (Jaffar and El-Shawa, 2009; Farooque et al., 2010; Rashida et al., 2010; Lin, 2011; Wahla et al., 2012; Caixe and Krauter, 2013; Warrad et al., 2013; Al-Saidi and Al-Shammari, 2015; Nguyen et al., 2015) can be written as follows:

$$Q = \frac{MVS + DA}{TA}$$

where, Q is the value of the company, MVS is the market value of equity (market price x number of shares), DA is the total book value of debt, and TA is total assets.

# 3.3 Data analysis techniques

This study uses SEM-PLS analysis techniques with the WarpPLS 5.0 application. This technique was chosen because it is in accordance with this research which is predictive and exploratory.

# 3.4 Empirical Model

This study builds an indirect relationship to the effect of free cash flow (FCF) on overvalued equity (MB) mediated by dividend policy (DPR). Likewise for the influence of FCF on tobin q which is mediated by dividend policy as well. Empirically, a mediating effect model in relation to FCF and firm value (MB and Tobin q) can be seen in the following figure:



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Based on the empirical model above, the effect of mediation testing for dividend policy variables (DPR) in the relationship of free cash flow (FCF) to overvalued equity (MB) and also tobin q uses the VAF approach (Hair et al., 2013). The structural equation from the empirical model can be written as follows:

$DPR_{it} = \alpha_1 + \beta_1 FCF_{it} + e_1$	(1)
$MB_{it} = \alpha_2 + \beta_2 FCF_{it} + \beta_3 DPR_{it} + e_2$	(2)
$Q_{it} = \alpha_3 + \beta_4 FCF_{it} + \beta_5 DPR_{it} + e_3$	(3)

# 4 Results and Discussion

# 4.1 Descriptive and Correlation Matrices

Table 2 shows descriptive data from this study in the form of minimum, maximum, average, and standard deviation values. The table shows the value of free cash flow (FCF) which is very low, which is below 0.1 (0.03). This means that on average the FCF value of the entire sample of manufacturing companies has a FCF that is not too high which can lead to managerial opportunistic behavior. Likewise, the value of dividend policy (DPR). The average DPR score is also far below 0.5 (0.186). Descriptive market book (MB) statistics show that values are not too high because they are supported by FCF values that are not too high. While the value of tobin q for all companies sampled has high company value because on average the value of tobin q is above 1,794.

# Table 2

Descriptive Data from Research Variables

Variable	Min	Max	Mean	SD
FCF	-0.295	1.060	0.031	0.135
DPR	0.000	1.000	0.186	0.256
MB	-63696.113	479533.775	22969.980	62703.970
Tobin q	0.304	23.286	1.794	2.737

Furthermore, in Table 3 it can be seen the correlation matrix of all research variables. The matrix correlation results show that the FCF variable is positively correlated with tobin q and DPR (significant at the 0.01 level). MB is positively correlated with tobin q and DPR (significant at the 0.05 level), and tobin q itself is positively correlated with DPR (0.01 significance). Among the explanatory variables there is no strong correlation between variables, so multicollinity is not a concern.

# Table 3

Correlation Matrix of The Main Constructs

Variable	FCF	MB	Tobin q	DPR
FCF	1			
MB	0.034	1		
Tobin q	0.390***	0.158**	1	
DPR	0.242***	0.148**	0.542***	1

\*\*\*, \*\*, \* denotes significance levels at 0.01, 0.05, dan 0.1 respectively

4.2 SEM-PLS Analysis Results for the Variable Opportunistic Behavior of Firm Value mediated by Dividend Policy

After testing the analysis using SEM-PLS, goodness of fit is obtained from the research model. The following Table 4 presents it as follows:

# Table 4 Goodness of Fit Research Model

Criteria	Parameter
Average Path Coefficient (APC)	0.331***
Average R-squared (ARS)	0.312***
Average Adjusted R-squared (AARS)	0.309***
Average block VIF (AVIF)	1.239
Average Full Collinearity VIF (AFVIF)	1.308
Tenenhaus GoF (GoF)	0.559
Sympson's Paradox Ratio (SPR)	0.800
R-squared Contribution Ratio (RSCR)	0.989
Statistical Suppression Ratio (SSR)	1.000
Nonlinear Bivariate Causality Direction Ratio (NLBCDR)	1.000
*** ** * denotes significance levels at 0.01.0.05.0.1 respectively	

\*\*\*,\*\*,\*, denotes significance levels at 0.01; 0.05; 0.1 respectively

In Table 4 above, it can be seen that all values for the capital suitability parameter meet the rule of thumb. APC value = 0.331, ARS value = 0.312, and AARS value = 0.309, with significance (p-value) respectively <0.01. AVIF and AFVIF values are smaller than 3.3, so there are no multicollinearity problems between indicators and between exogenous variables. The GoF parameter shows a value greater than 0.36 so it belongs to a large category. This means that this research model has a very

good fit. SPR, SSR, and NLBCDR values are respectively 0.800 (accepted if  $\geq$  0.7); 1,000 (accepted if  $\geq$  0.7); and 1,000 (accepted if  $\geq$  0.7). Thus, there is no problem of kusalitas in the model (Latan & Ghozali, 2017). The estimated results of the relationship between constructs and the amount of variance and effect size can be seen in Table 5.

A Result of Structural Model Evaluation					
Description Path	Path Coefficient	$\mathbb{R}^2$	$Q^2$	Effect Size	Standard Error
$FCF \rightarrow MB$	-0.084*	0.046	0.073	0.010	0.055
$FCF \rightarrow Tobin Q$	0.192***	0.711	0.646	0.114	0.054
$FCF \rightarrow DPR$	0.415***	0.170	0.179	0.172	0.052
$DPR \rightarrow MB$	0.244***			0.062	0.053
$DPR \rightarrow Tobin Q$	0.722***			0.598	0.050

 $DPR \rightarrow 100 \text{ In } Q$  0.722\*\*\*\* \*\*\*,\*\*,\*, denotes significance levels at 0.01; 0.05; and 0.1, respectively

Based on Table 5 above, an adjusted R-squared  $(R^2)$  value for dividend policy is obtained. This value belongs to the small category ( $\leq 0.25$ ) and shows variations that can be explained by the independent variables by 17%. The adjusted R-squared (R2) value for MB is 0.046, which means it is included in the small category ( $\leq 0.25$ ) and shows variations that can be explained by the independent variables and mediation by 4.6%. While the adjusted R-squared (R2) value for Tobin q is 0.711 (classified as strong because  $\leq 0.70$ ), which shows variations that can be explained by independent and mediating variables by 71.1%. Q-squared value generated by dividend policy (DPR) is 0.179, while overvaluation (MB) is 0.073> 0, and tobin q is 0.646 > 0. The three Q-squared values of dividend, overvaluation and tobin q policy give meaning that the model has predictive validity. While the value of the effect size of the free cash flow variable (FCF) with overvaluation (MB) is 0.010, smaller (<) than 0.02. That is, the effect of the latent variable predictor (FCF) is very weak from a practical view even though it has a significant p value. On the other hand, the effect size of FCF on tobin q is 0.114 < 0.15, so it is included in the medium category. That is, the influence of the latent variable predictor (FCF) is quite important in terms of practical view. The value of the effect size of the dividend policy (DPR) against overvaluation (MB) is 0.062 < 0.15. This means that practically dividend policy has an important role in overcoming the occurrence of overvaluation (MB). While the value of the effect size of the dividend policy (DPR) to the value of the company (Tobin q) of 0.598>0.35, thus proving dividend policy has a very important role in determining the value of the company (tobin q). The value of the effect size of the dividend policy to the firm's value (tobin q) is the highest compared to the effect size value of the latent variable predictor to the other latent variable criterion.

The results of the estimation of the relationship between constructs in Table 5 show managerial opportunistic behavior (FCF) has a positive effect on firm value which is proxied by tobin q so that these results support hypothesis 1b. While managerial opportunistic behavior towards firm value which is proxied by overvaluation (proxied by MB) also impacts on firm value even though the effect is negative so the empirical results are still said to support hypothesis 1a. Then managerial opportunistic behavior also influences dividend policy so that it supports hypothesis 2. Furthermore, dividend policy (DPR) influences the value of the company which is proxied by overvaluation and tobin q so it supports hypotheses 3a and 3b. Overall empirical results of this study, supporting previous studies which stated dividend policy (DPR) can help reduce managerial opportunistic behavior that can cause overvaluation and increase Tobin q. Then to answer hypotheses 4a and 4b, mediation testing is needed, whether dividend policy is able to mediate the influence of managerial opportunistic behavior (FCF) on overvaluation (MB) and also tobin q. In this study, mediation testing was carried out using the VAF (Variance Accounted For) approach. The results of the direct influence of managerial opportunistic behavior as significant positive effect (p-value = 0.01) with a path coefficient of 0.12. While the results of the direct influence of managerial opportunistic behavior variables (FCF) on value (tobin q) without the mediation variables indicate a significant positive effect (p-value <0.01) with a path coefficient of 0.60. The next step calculates the VAF value to determine the presence or absence of a mediating effect. This stage can be seen in Table 6.

#### Table 6

Mediation Testing on the Impact of FCF on MB and Tobin Q through the DPR

	Overvaluation	Tobin q
Indirect effect	0.1008	0.3024
Direct Effect	0.12	0.60
Total Effect	0.2208	0.9024
VAF (indirect effect/total effect)	0.4565	0.335

From Table 6, the VAF value for overvaluation is 0.4565, while the VAF value for tobin q is 0.335. The two VAF values conclude a mediating effect and are classified as partial mediation and support hypotheses 4a and 4b. These results prove that managerial opportunistic behavior can reduce the formation of overvaluation by applying dividend policy as a bonding mechanism. In addition, this empirical result also proves that managerial opportunistic behavior can be reduced by applying dividend policy as a bonding mechanism so as to increase the value of the company (Tobin q).

The results of table 6 above refer to the path diagram of research results that have been tested through the WarpPLS analysis technique as illustrated in Fig. 2 as follows:

Table 5



Fig. 2. Research Results Path Chart

Source: Output WarpPLS 5.0

#### 5 Conclusion

This study has investigated the effect of free cash flow on firm value proxied by market books and Tobin q. Using 320 observations from 40 manufacturing companies over the period 2010-2017, it has given empirical results that managerial opportunistic behavior had a significant impact on firm value. These results have indicated managerial opportunistic behavior can be reduced by making dividend payments to shareholders. In addition, by making dividend payments it will give investors a signal of good company performance. Therefore, this study supports the results of previous studies which state that dividend policy can serve to reduce agency conflicts that occur between shareholders and agents. This research contributes to agency theory which argues that opportunistic behavior is a problem that can trigger an increase in agency conflict and has an impact on corporate value. Until now, most of the studies have examined the effect of managerial opportunistic behavior on firm value. But there are still very few that examine the effect of managerial opportunistic behavior on firm value which is proxied by two different measures, namely overvaluation and Tobin q. Overvaluation has indicated a measure of the value of a company that is overvalued and in the long run if it cannot be justified the true value of the company will actually have an impact on the bankruptcy of the company. While Tobin q shows the ideal size of company value, where this measure is a market valuation of the company. Overall, this research has implications for managerial opportunistic behavior that can be overcome by using dividend policy as a bonding mechanism so that the value of the company is optimal. This study has several limitations, including: first, the proxy used as an indicator of managerial opportunistic behavior, namely free cash fow, does not follow as suggested by previous studies, so as to allow measurement errors. Secondly, this research only covers companies belonging to the manufacturing sector only because companies belonging to this sector make more dividend payments than other sectors on the Indonesian stock exchange, so the results of this study cannot provide the same conclusions in other sectors. Therefore, limitations in this study will be an opportunity for other researchers to be able to expand this research.

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