www.iiste.org

The Role of Dividend Policy and Investment Opportunity Set Mediating Free Cash Flow Effect on Firm Value

Komang Adik Hari Raharja School of Management, Faculty of Economic and Business Udayana University Jl. P.B. Sudirman Denpasar, Bali 80232, Indonesia

Ni Luh Putu Wiagustini School of Management, Faculty of Economic and Business Udayana University Jl. P.B. Sudirman Denpasar, Bali 80232, Indonesia

Abstract

Firm value could be described as investors perception's of a company's degree of success that is related to its stock price. Stock prices are determined by internal and external factors of the company that are used as the basis for investors in decision making. The population in the study is a manufacturing company listed on the Indonesia Stock Exchange (IDX) with a total of 60 companies, with census methods. Data collection was carried out using non-participant observation methods. The data analysis technique used is path analysis. Based on the results of the analysis found that, free cash flow has a positive and insignificant effect on firm value, free cash flow has a positive and significant effect on firm value , investment opportunity set, dividend policy has a positive and significant effect on firm value , investment opportunity set has a positive and significant effect on firm value , investment opportunity set has a positive and significant effect on firm value and investment opportunity set companies capable of mediating the effect of free cash flow on firm value and investment opportunity set companies capable of mediating the effect of free cash flow on firm value.

Keywords: firm value, free cash flow, dividend policy, investment opportunity set

1. Introduction

Firm value can be measured using Tobin's Q (Rehman, 2016). Tobin's Q is the ratio of the market value of a company's assets as measured by the market value of the number of shares outstanding and debt to company assets. The selection of this ratio is because Tobin's Q is an indicator to measure company performance that is related to firm value and shows a management performance in managing company assets (Rahmawati et al, 2015). Tobin's Q can also be used to measure company performance in terms of the potential market value of a company (Sudiyatno and Puspitasari, 2010).

Stock prices that reflect the company's value can be determined by internal factors such as company performance and management policies as well as external factors in the form of political, economic, cultural, and government policies that are used as a basis for investors in making decisions in the capital market. This research emphasizes on internal factors because it is often seen as an important factor in determining stock prices. The company's internal factors in capital market analysis are often referred to as the company's fundamental factors because these factors are controllable that can be controlled by the company (Adiputra, 2016). The following stock price index of the manufacturing sector in the Indonesia Stock Exchange for the 2015-2017 period is presented in Figure 1.1.

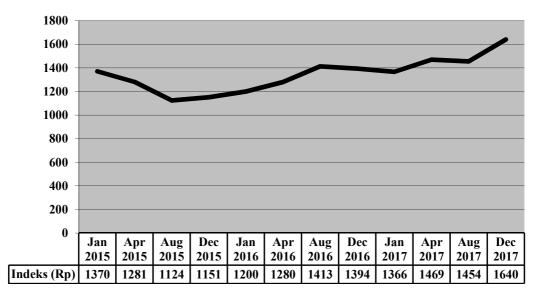


Figure 1. Manufacturing Sector Stock Price Index at the Indonesia Stock Exchange in 2015-2017

Figure 1. shows the stock price index of the manufacturing sector that experienced fluctuations during the 2015-2017 period. At the end of 2015, the stock price declined at a price of Rp1,151, at the end of 2016 the stock price increased at Rp1,394 and continued to increase until the end of 2017 at a price of Rp1,640. Stock price fluctuations are determined between the strength of demand and supply. If the number of bids is greater than the number of requests, in general the exchange rate of the stock price will decrease as well as vice versa, if the number of requests is greater than the number of bids for a stock, then the stock price will tend to rise.

Factors that influence firm value are free cash flow, dividend policy and investment opportunity set (Suartawan and Yasa, 2016). Free cash flow reflects the company's flexibility in making additional investments, paying off debts, buying treasury shares or increasing company liquidity so that high free cash flow indicates high corporate performance (Arieska and Barbara, 2011). Free cash flow can be proxied by operating cash flow minus net capital expenditures minus net working capital of the company divided by total assets (Suartawan and Yasa, 2016). Good company performance will give signals to investors that management is able to operationalize the company so that it can increase firm value. Using free cash flow can trigger differences in interests between managers and shareholders. The shareholders want the excess funds to be distributed in the form of dividends, while the manager's excess funds are intended to be used to invest in projects that provide benefits to the company, because with these benefits the manager indirectly gains more from the investment.

According to Kieso et.al (2011) the information provided by the company's cash flow report helps investors, creditors and other parties to assess the company's ability to fulfill its obligations and ability to pay dividends, assess the reason for the difference between net income and revenue from operating activities and assess the effect on position the finance of a company has a great ability to fulfill investor desires. Increased cash flow from year to year indicates that the company's ability to increase investment such as buying assets to increase profits and carry out operations in the future, as well as the ability to pay dividends increases, this makes the market react to demand and supply for stock returns, so that an increase in cash flow will result in an increase in stock prices. This statement is in line with the research conducted by Gregory and Wang (2010), Wang (2010), Vakilifard and Shahmoradi (2014), Mansourlakoraj and Sepasi (2015) and Juhandi, et. al (2015) which states that free cash flow has a positive effect on firm value. Research from Dharmastuti and Wirjolukito (2004) who found that free cash flow has a negative effect on stock prices is different from the research conducted by Maringka, et.al (2016) and Embara, et al (2012) found that free cash flow does not affect price changes stock.

Dividend policy is a decision taken by the management of the company in relation to dividends, whether profits will be shared with shareholders in the form of dividends or profits will be retained for future investment financing. Dividends represent the company's net income after tax minus retained earnings. Basically the dividend can be divided as dividends or retained for reinvestment by management (Husnan, 2016). The optimal dividend policy is a dividend policy that produces a balance between current dividends, future growth, and maximizing the company's stock price (Brigham and Daves, 2010). In this study, dividend policy is measured by the ratio of Dividend Payout Ratio (DPR) (Masum, 2014). DPR is a comparison of dividends given to shareholders and net income per share. DPR Determines the amount of profit to be divided in the form of cash dividends and retained earnings as a source of funding. This study chose the DPR because in reality investors prefer to accept lead in the form of cash dividends rather than capital gains. This is because dividends are felt

more likely, certainly and the results can be directly felt by investors. The dividends expected by investors are dividends that are consistent with the results every year and have increased (Ningrum, 2017).

Embara et al. (2012) explained that dividend policy can be influenced by the free cash flow in the company. Companies that have large free cash flow will be able to provide dividend payments to shareholders. This statement is consistent with research conducted by Rosdini (2009) who found that free cash flow has a positive effect on dividend policy which means that the higher the free cash flow, the higher the dividend payout ratio (DPR) or the lower the free cash flow, the lower the DPR. This statement is supported by research conducted by Thanatawee (2011), Hashemi and Zadeh (2012), Kangarlouei et.al (2014), Hejazi1 and Moshtaghin (2014), Issa (2015), Giriati (2016) which states that free cash flow positive and significant influence on dividend policy. Another study conducted by Rehman (2012), Osegbue et al. (2014) found that free cash flow has a negative effect on dividend policy while research conducted by Tijjani and Sani (2016), Juhandi et.al (2013), Al-Kuwari (2009), Puspitasari and Darsono (2014) found that free cash flow no effect on dividend policy. Dividend policy is also able to provide a bad signal for the company when dividends are announced to decrease from the previous period. Reduced dividends reflect the company's diminishing profits and indicate that the company is underfunded. In addition, there is a decrease in dividend payments because companies hold dividends to invest in profitable projects in the future. Dividend policy does not affect firm value because the dividend payout ratio is only the details and does not affect the welfare of shareholders because shareholders only want to take profits in the short term by obtaining capital gains (Kusumastuti, 2013). This statement is supported by research by Jakata and Nyamugure (2015), Masum (2014), Dananjaya and Mustanda (2016) and Dewi and Putri (2017) who find that dividend policy does not affect firm value.

Factors affecting investment opportunity set are free cash flow (Sriyunianti, 2013). Companies that have large free cash flow show good company performance compared to companies that have small free cash flow because they are able to generate large cash for the company. Company management assumes that free cash flow is used to increase investment in projects that are considered to be profitable for the company in the long run. Various company conditions can affect firm value's free cash flow, for example if the company has a high free cash flow with a low growth rate then free cash flow is distributed to shareholders, but if the company has high free cash flow and high growth rates then free cash flow can temporary detention and can be used for investment in the coming period (Zuhri, 2011). This statement is supported by Fazzari Hubbard and Peterson (1988) and Pawlina and Renneboog (2005) who find free cash flow has a positive effect on investment decisions. In contrast to the research conducted by Giriati (2016) shows that free cash flow has a negative effect on investment opportunity set. Investment Opportunity Set (IOS) in this study is proxied with Market to Book Value of Equity (MBVE) (Adam and Goyal, 2007). MBVE is a price based proxy that describes the capital of a company. Investors can see the company's performance in obtaining capital. The company's expertise in managing its capital can be assessed by investors in this proxy. The greater the MBVE ratio will affect firm value's stock price. The IOS proxy chosen in this study is MBVE with the premise that the market assesses the return on investment of a company in the future is greater than the expected return from its equity (Afriadi, 2016).

The inconsistency of the results of previous studies that led to dividend policy and investment opportunity set (IOS) became mediating variables in this study because dividend policy and IOS can make the relationship of free cash flow to the value of the firm become an indirect relationship. Free cash flow can affect dividend benefits because shareholders want the excess funds to be distributed in the form of dividends, so that high dividend payments will be a positive signal for investors and able to increase the value of the firm. The increase in free cash flow to be used to finance profitable corporate investments in the future. When IOS is high, it will be a positive signal for investors because it shows the company's growth potential, so that it becomes an attraction for investors because it will benefit investors in the future and be able to increase the value of their companies.

Based on the above phenomenon, this study was conducted on manufacturing companies listed on the Indonesia Stock Exchange (IDX). The existence of industrial sub-sectors in the manufacturing sector that almost dominate the capital market rather than other sectors that can facilitate in looking at the effects of the capital market as a whole. The manufacturing sector is the majority of companies that distribute dividends. The performance of a good manufacturing company will increase investor confidence in the company. The better performance of the company will generate profits, where some of the profits will be retained for investment purposes and some will be distributed in the form of dividends. Based on the explanation above, the manufacturing sector is one of the interesting sectors to study.

2. Literature Review

2.1 Signalling Theory

One of the important things for investors is information. Information that presents data in the form of information, notes or descriptions of past, present, and future that will be useful to predict the condition of the company (Nurrohman, 2013). According to signaling theory, information issued by a company is very important

for investors who will invest in the company. Brigham and Daves (2010) states that signaling theory is an action taken by company management that provides guidance to investors about how management views the company's prospects as providing financial statement information to investors.

2.2 Firm value

Managers as agents will always be under pressure from shareholders because the goal that must be achieved by a manager in managing the company is not only maximizing the company's profit but the most important thing is to maximize the welfare of shareholders through maximizing firm value or the present value. shareholder benefits that are expected to be obtained in the future (Sartono, 2014). According to Sartono (2014) explained that stock market prices also show firm value. Firm value can be defined as the company's fair value that describes the investor's perception of the issuer. According to Husnan (2016), firm value is the price that is willing to be paid by prospective buyers if the company is sold. Keown et al. (2017) states that the value of a company is the market value of debt securities and equity of an outstanding company. The price that the prospective buyer is willing to pay is defined as the market price of the company itself. On the stock exchange, market prices mean the price that investors are willing to pay for each share of the company, so that it can be said that firm value is the investor's perception of the company which is always associated with the stock price.

2.3 Free Cash Flow

Jensen (1986) defines free cash flow as a cash flow which is the rest of the funding of all projects which results in a positive net present value discounted at the level of the relevant capital costs. According to Brigham and Daves (2010) free cash flow is a cash flow that is actually available to be paid to investors in the form of dividends after the company has invested in fixed assets. Ross et al. (2008) define free cash flow as corporate cash that can be distributed to creditors or shareholders that are not used for working capital or investment in fixed assets. Free cash flow is said to have information content when free cash flow signals the shareholders.

2.4 Dividend Policy

One of the returns that shareholders will get is dividends. According to Brigham and Daves (2010), dividends are the distribution of profits to holders of equity investments in accordance with their proportion and type of capital. According to Sunariyah (2004), dividends are the distribution of profits provided by the issuing company for the profits generated by the company. Based on these two opinions, it can be said that dividends are a proportion of the profit sharing obtained by the company which is distributed to the company's shareholders.

2.5 Investment Opportunity Set

The growth potential of a company can be demonstrated by the existence of investment opportunities that can generate higher profits in the future (Jati, 2003) The term Investment Opportunity Set (IOS) was introduced for the first time (Myers, 1997). According to Myers (1997), a company is a combination of the value of assets in place and investment choices in the future. Basically IOS is a choice of future investment opportunities that can affect the growth of assets of a company or project that has a positive net present value.

3. Hypotheses

3.1 The Effect of Free Cash Flow on Firm value

Research conducted by Andini and Wirawati (2014) shows that free cash flow has a positive and significant effect on firm value. Companies with high free cash flow will have a greater return than companies that have low free cash flow, besides that the company's free cash flow must be paid to shareholders if they want to increase firm value. This result is in line with research conducted by Vogt and Vu (2000), Gregory and Wang (2010), Wang (2010), Vakilijard and Shahmoradi (2014), Mansourlakoraj and Sepasi (2015) and Juhandi, et. al (2015). H1: Free cash flow has a positive and significant effect on firm value.

3.2 The Effect of Free Cash Flow on Dividend Policy

The results of testing conducted by Giriati (2016) found that free cash flow has a positive influence on the dividend payout ratio (DPR). The influence of free cash flow on the DPR is positive, meaning that the higher the free cash flow, the higher the DPR or the lower free cash flow, the lower the DPR. The same was found in the study. The results were supported by research by Fauz (2007), Thanatawee (2011), Hashemi and Zadeh (2012), Hejazi and Moshtaghin (2014), Kangarlouei et. al (2014) and Issa (2015) that free cash flow has a positive effect on dividend policy as measured by dividend payout ratio. Dividend increase is a positive signal about the company's growth in the future, because increasing dividends are defined as the benefits that will be obtained in the future.

H2: Free cash flow has a positive and significant effect on dividend policy.

3.3 The Effect of Free Cash Flow on Investment Opportunity Set

Companies that have enough free cash flow to not use high debt when the company has a high chance of investing. Companies prefer to take advantage of existing opportunities and managers do not want to waste the opportunity to benefit from investing (Gusti, 2013). If the investment made is based on the cash flow agency problem, then there should be a positive relationship between the investment decision of the year and the free cash flow of the year.

H3: Free cash flow has a positive and significant effect on the investment opportunity set.

3.4 The Effect of Dividend Policy on Firm value

The company's dividend policy is able to provide a signal to investors. The increase in dividend payments is considered good news by investors because the increase in dividends means that the company has good prospects in the future and vice versa, the decrease in dividend payments is considered bad news by investors because the decrease in dividends means that the company has unfavorable prospects in future. Dividend increases will increase stock prices which will also affect firm value. This statement is supported by research by Wijaya and Wibawa (2010), Fenandar and Raharja (2013), Zakaria et.al (2012), Ilaboya and Aggreh (2013), Winarto (2015), Nasrum, et.al (2015), Rehman (2016), Anton (2016), Nwamaka and Ezeabasili (2017), Budagaga (2017), Kusiyah and Arief (2017) can prove that dividend policy positively influences firm value and supports signaling theory.

H4: Dividend policy has a positive effect on firm value.

3.5 The Effect of Investment Opportunity Set on Firm value

There is an investment opportunity relationship with firm value, where investment opportunities provide a positive signal to investors about the company's growth in the future until it can increase stock prices as an indicator of firm value. Investment is an important factor to generate corporate profits, so that it can increase firm value. Research conducted by Suartawan and Yasa (2016) shows that investment opportunity sets (IOS) have a positive and significant effect on firm value. This research was also supported by Afzal and Rohman (2012) Prastika (2013), Yuliani (2013), Tobing (2015), Winarto (2015), Dhananjaya and Mustanda (2016), Nasrum et. al (2017), Bella and Suaryana (2017) who found that IOS had a positive and significant effect on firm value.

H5: The investment opportunity set has a positive and significant effect on firm value.

3.6 The Role of Dividend Policy in Mediating the Effect of Free Cash Flow on Firm value

Research conducted by Embara, et al (2012), Thanatawee (2011), Hashemi and Zadeh (2012), Kangarlouei et.al (2014), Hejazil and Moshtaghin (2014), Issa (2015), Giriati (2016) found that free cash flow has a significant positive effect on dividend policy. The greater the free cash flow that a make management company has, the higher the pressure from shareholders to distribute dividends so that the higher free cash flow increases dividend payments to shareholders. Test results conducted by Rizqia, et al (2013), Juhandi et.al (2012), Ilaboya and Aggreh (2013), Winarto (2015), Nasrum et.al (2015), Sharif et.al (2015), Rehman (2016), Anton (2016), Nwamaka and Ezeabasili (2017), Budagaga (2017), Kusiyah and Arief (2017) found that dividend policy has a positive effect on firm value. Dividend distribution will give a positive signal regarding the company's financial performance in the investor's perception.

H6: Dividend policy can mediate the effect of free cash flow on firm value.

3.7 The Role of Investment Opportunity Set in Mediating the Effect of Free Cash Flow on Firm values

Companies that have high free cash flow show that good company performance than campanies that have low free cash flow. Company management assume that free cash flow is used to increase investment in projects that are considered to be profitable for them company in the long term. Companies that have a high investment opportunity set (IOS) value give a positive signal to investors that the company is developing (Chung and Charoenwong (2013). Companies that have developing business prospects will be a positive signal for investors. Investors believe that the company is able to increase the prosperity of holders stocks so that the company's stock demand will increase, the increasing demand for company shares will increase firm value, this statement is supported by Afzal and Rohman (2012), Prastika (2013), Yuliani (2013), Tobing (2015), Winarto (2015), Suartawan and Yasa (2016), Dhananjaya and Mustanda (2016), Bella and Suaryana (2017), Nasrum et.al (2017) who found that investment opportunity sets have a positive effect on firm value.

H7: The investment opportunity set is able to mediate the effect of free cash flow on firm value.

4. Research Methods

The population in this study were all manufacturing companies that distributed dividends in a row and registered on the Indonesia Stock Exchange (BEI) for the 2013-2016 period as many as 60 companies. In this study

sampling using census methods, namely sampling techniques with all members of the population used as samples in the study. The population in this study amounted to 60 companies.

The independent variable in this study is Free Cash Flow with the following formula:

 $0 = -\frac{1}{2}$

Free Cash Flow = Opearating Cash Flow – Capital Expenditure – Net Working Capital

Total Assets

The dependent variable in this study is Firm Value is measured by Tobins's Q with the following formula:

Market Value of Equity + Debt

Total Assets

The mediating variable in this study are Dividend Policy is measured by Dividend Payout Ratio (DPR) and Investment Opportunity Set is measured by Market to Book Value of Equity ratio with the following formula:

Dividend Per Share $DPR = \frac{1}{2}$

Outstanding Shares x Closing Price MBVE =

Total Equity

Multiple linear regression analysis techniques can be used to examine how the influence of independent variables on the dependent variable in the empirical research model. This research uses path analysis method. Path analysis is used to determine whether independent variables have a direct effect or indirect effect on dependent variables. Regression analysis is used to determine the effect of each independent variable on the dependent variable. Multiple linear regression equations from the empirical model of this research can be written below:

Equation Model 1	$: Y_1 = b_1 Y_1 X_1 + e_1$
Equation Model 2	: $Y_2 = b_2 Y_2 X_1 + e_2$
Equation Model 3	: $Y_3 = b_5 Y_3 X_1 + b_3 Y_3 Y_1 + b_4 Y_3 Y_2 + e_3$
Description	: X1 = Free Cash Flow
	Y1 = Dividend Policy
	Y2 = Investment Opportunity Set
	Y3 = Firm Value

5. Result And Discussion

5.1 Direct Effect

Regression tests were carried out for the equation 1 model, equation 2 model and equation 3 model in the empirical model of this study. Here is a summary of the path coefficients processed by regression data:

Regression	Standardized Coe <u>f</u> ficients	Standar Error	t	P. Value	Descrption
FCF → FV	0,180	0,193	0,739	0,463	Not sig.
FCF 🔶 DIV	0,285	0,187	2,261	0,028	Sig.
FCF 🔶 IOS	0,337	1,602	2,722	0,009	Sig.
DIV → FV	0,058	0,123	2,459	0,017	Sig.
IOS 🔶 FV	0,972	0,014	40.551	0,000	Sig.

Tabel 1. Ringbasan Koofisian Jalur

The equation model for the model is:

Equation 1: DIV = 0.285FCF + e1

Equation 2: IOS = 0,337FCF + e2Equation 3: FV = 0.180FCF + 0.058DIV + 0.972IOS + e3

Description:

FV : Firm Value

FCF : Free Cash Flow

DIV : Dividend Policy

IOS : Investment Opportunity Set

Based on Table 1 it can be explained that the standardized coefficients beta free cash flow value is 0.180 and the significance at 0.463 (> 0.050) means that free cash flow has a positive and insignificant effect on firm value. The standardized coefficients beta free cash flow value is 0.285 and the significance of 0.028 (<0.050) means that free cash flow has a positive and significant effect on dividend policy. The value of standardized coefficients beta free cash flow is 0.337 and the significance of 0.009 (<0.050) means that free cash flow has a positive and significant effect on the investment opportunity set. The value of the standardized coefficients beta dividend policy is 0.058 and the significance of 0.017 (<0.050) means that the dividend policy has a positive and significant effect on firm value. The standardized coefficients beta investment opportunity set value is 0.972 and the significance of 0.000 (<0.050) means that the investment opportunity set has a positive and significant effect on firm value.

Free cash flow has a positive and insignificant effect on the value of manufacturing companies in the Indonesia Stock Exchange (BEI) for the period 2013-2016, where these results contradict the first hypothesis which states that free cash slow has a positive and significant effect on firm value. This shows that the size of the company's free cash flow is not able to give a signal to investors in making decisions. Company managers tend to hold free cash flow to remain under its control which is used as an internal source of funds (retained earnings) to make investments compared to distributing it to shareholders in the form of dividends so that an increase in company performance that results in large amounts of free cash flow does not guarantee an increase in holder's prosperity Stocks are realized in the form of increasing returns in the form of dividends and stock prices. The results of this study are in accordance with Maringka, et.al (2016) and Embara, et al (2012) who found that free cash flow has no significant effect on firm value.

Free cash flow has a positive and significant effect on the dividend policy of manufacturing companies on the Indonesia Stock Exchange (BEI) for the period 2013-2016, where these results accept the second hypothesis which states that free cash flow has a positive and significant effect on firm value. With the high value of free cash flow manufacturing companies on the IDX for the period 2013-2016 guarantee that the dividends distributed will be high. Based on the results of the study showed that the dividend payout ratio of manufacturing companies on the BEI for the 2013-2016 period was influenced by the high and low free cash flow owned by a company.

Free cash flow has a positive and significant effect on investment opportunity set (IOS) of manufacturing companies on the BEI for the period 2013-2016, where these results accept the third hypothesis which state that free cash flow has positive and significant effect on investment opportunity set. This means that companies that have free cash flow are proven to overinvestment, where managers improve their own welfare by spending excessive capital without taking into account the welfare of shareholders. The company manager has the right to use the cash for the company's investment activities.

Dividend policy has a positive and significant effect on the value of manufacturing companies in the Indonesia Stock Exchange (BEI) for the 2013-2016 period, where these results are in accordance with the fourth hypothesis which states that dividend policy has a positive and significant effect on firm value. will be higher. Dividend distribution can be made a signal by company managers regarding the good performance of the company and have good prospects in the future so that investors respond well.

Investment opportunity set (IOS) has a positive and significant effect on the value of manufacturing companies on the Indonesia Stock Exchange (BEI) for the 2013-2016 period, where these results are in line with the fifth hypothesis which states that IOS has a positive effect on firm value. This means that the higher the company's IOS ratio, the higher firm value. The actions taken by the company show how well the company prospects. The investment actions taken by the company will get high profits in the future. For investors, increasing company growth is a profitable prospect, because the investment invested by investors can provide optimal return in the future, meaning that if the company gains positive growth, it indicates an investment opportunity for the company to determine various investment choices. The greater the investment opportunity set (IOS) of the company, the manager will try to take these opportunities in order to increase the value of the firmand to prosper shareholders.

5.2 Indirect Effect

First, free cash flow has a positive and significant effect on dividend policy, but has a positive and insignificant effect on the value of the firm. Dividend policy has a positive and significant effect on the value of the firm. The result of path analysis shows that the effect of free cash flow on the value of the firm is an indirect effect. This influence is mediated by dividend policy, so it can be concluded that dividend policy acts as a full mediation variable that mediates the effect of free cash flow on the value of the firm. In this model there is a process of indirect influence between free cash flow, dividend policy and firm value.

Dividend policy is able to mediate the effect of free cash flow on the value of manufacturing companies on the Indonesia Stock Exchange (BEI) for the period 2013-2016, where this result accepts the sixth hypothesis that dividend policy can mediate the effect of free cash flow on the value of manufacturing companies in the Indonesia Stock Exchange period 2013-2016. Free cash flow has a positive and insignificant effect on firm value. This shows that the size of the company's free cash flow is not able to give a signal to investors in making decisions. Free cash flow is a cash flow that is actually available to be paid to investors after the company has invested in fixed assets, new products, and working capital needed to maintain the ongoing operation. Excessive funds in companies that should be distributed to shareholders, the distribution of which is very much determined by management policy so that free cash flow does not affect firm value. The availability of the company's free cash flow will push company managers to increase dividend payments to reduce agency costs. Large free cash

flow is very profitable because the remaining cash will be distributed to shareholders in the form of dividends. The high dividend payment can provide a positive signal and will be seen by investors that the company is able to prosper shareholders so that the value of the firm also increases.

Second, free cash flow has a positive and significant effect on investment opportunity set (IOS), but has a positive and insignificant effect on the value of the firm. IOS has a positive and significant effect on the value of the firm. The result of path analysis shows that the effect of free cash flow on the value of the firm is an indirect effect. This influence is mediated by IOS, so it can be concluded that IOS acts as a full mediation variable that mediates the effect of free cash flow on the value of the firm. In this model there is a process of indirect influence between free cash flow, IOS and firm value.

Investment opportunity set (IOS) is able to mediate the effect of free cash flow to the value of manufacturing companies in the Indonesia Stock Exchange in the period 2013-2016, where this result accepts the seventh hypothesis which states that IOS is able to mediate the effect of free cash flow on firm value. Free cash flow has a positive and insignificant effect on firm value and IOS has a positive and significant effect on firm value. The amount of free cash flow is not able to influence investors in making decisions. Based on signaling theory, the company has the urge to provide financial reports to external parties and this is one way to increase firm value. Managers convey information to the capital market, the market will respond to the information as a signal, when the company is able to generate a large free cash flow, the manager will hold free cash flow to be reinvested in order to obtain a higher return. Increased investment opportunity set (IOS) can provide a positive signal regarding the growth of the company in the future, so that it can increase stock prices and be able to maximize the welfare of shareholders.

6. Conclussion And Suggestion

Free cash flow has a positive and insignificant effect on firm value, meaning free cash flow does not affect the value of the firm. This shows that the size of the free cash flow is not able to give a positive signal to investors and is not able to become an investor's attention in investing in manufacturing companies listed on the Indonesia Stock Exchange so that they cannot increase the value of the firm.

Free cash flow has a positive and significant effect on dividend policy. The higher the free cash flow, the higher the level of dividend payment to investors. This shows that the size of free cash flow is able to maximize dividend payments to shareholders of manufacturing companies listed on the Indonesia Stock Exchange. The amount of free cash flow will be used by the company to distribute dividends and by distributing dividends is expected to be able to provide positive signals for investors.

Free cash flow has a positive and significant effect on the investment opportunity set. The higher the company's free cash flow, the greater the opportunity for company investment. This shows that the higher the company's free cash flow, the investment opportunity set (IOS) proxied by the Market Book Value of Equity (MBVE) also increases. The results show that companies that have free cash flow are proven to overinvestment, where managers improve their own welfare by spending excessive capital without taking into account the welfare of shareholders. The amount of free cash flow will be used by the company for profitable investments in the future and will be able to provide positive signals for investors.

Dividend policy has a positive and significant effect on the value of the firm. This result shows that the higher the dividend payout ratio measured by dividend payout ratio, the higher the firm value. Dividend payments can provide good signals for investors in making decisions so as to increase the value of manufacturing companies listed on the Indonesia Stock Exchange.

Investment opportunity set (IOS) has a positive and significant effect on the value of the firm. This result means that the higher the company's IOS proxied by the Market Book Value of Equity (MBVE), the higher the value of the firm. The high IOS of the company is a good signal for investors that the company is developing so that it can increase the value of the firm.

Dividend policy can mediate the effect of free cash flow on the value of the firm. Dividend policy acts as a full evaluation which has a strong impact on the relationship of free cash flow to the value of the firm.

Investment opportunity set (IOS) is able to mediate the effect of free cash flow on the value of the firm. IOS acts as a full mediation that has a strong impact on the relationship of free cash flow to the value of the firm.

The suggestions that can be conveyed related to this research are that this research still has limitations in measuring the free cash flow variables and dividend policy so that the researcher can then include some variables such as debt policy. Because, the value of negative free cash flow will be able to increase the company's cash if it is owed. Further researchers can also add other sectors to add to the study population.

It is important for companies to increase their investment opportunity set by using the company's free cash flow. This is because the increase in free cash flow will increase the investment opportunity of the company so that it becomes a positive signal for investors if the company is developing and can increase demand for shares so that the value of the firm will increase.

For investors, before investing, investors should find out about financial performance and company profiles.

Investors should invest in companies that distribute dividends continuously because, dividend payments affect the high demand for stock prices, so the company is able to increase the value of the firm. Investment opportunities owned by the company are also a factor that influences the high value of the firm so investors are advised to invest in companies that have a high market book value of equity ratio.

7. Research Limitations

The limitations of this study lie in the variables studied, only about the variable free cash flow, dividend policy, investment opportunity set and firm value. Further research is suggested to add other variables such as capital structures that have not been included in the study in order to expand this research and get the results, further research is also expected to increase the research population not only for manufacturing companies but also other companies listed on the Indonesia Stock Exchange and add to the study period.

References

- Adam, Tim dan Goyal Vidhan K. 2007. The Investment Opportunity Set and Its Proxy Variables. *Journal of Financial Research*. Vol. 31, No. 1.
- Adiputra, I Gede. 2016. The Effect of Internal and External Factors on the Value of Firm Through its Investment Opportunities on the Stock Exchange of the Southeast Asian Countries. *International Business Management*. Vol. 10, No. 4, pg:370-376.
- Afriadi. 2016. Pengaruh Kebijakan Dividen, Kebijakan Hutang, Profitabilitas, dan Likuiditas terhadap Investment Opportunity Set. *E-Journal Universitas Negeri Padang*. Vol. 4. No. 1.
- Afzal, Arie dan Abdul Rohman. 2012. Pengaruh Keputusan Investasi, Keputusan Pendanaan, dan Kebijakan Dividen terhadap Nilai Perusahaan. *Diponogoro Journal of Accounting*, Vol. 1, No. 2, hal. 1-9.
- Al-Kuwari, Duha. 2009. Determinants of the Dividend Policy of Companies Listed on Emerging Stock Exchanges: The Case of the Gulf Cooperation Council (GCC) Countries. *Global Economy & Finance Journal*. Vol. 2, No. 2, pp. 38-63.
- Andini, Ni Wayan Lady dan Ni Gusti Putu Wirawati. 2014. Pengaruh Cash Flow pada Kinerja Keuangan dan Implikasinya pada Nilai Perusahaan Manufaktur. E-Jurnal Akuntansi Universitas Udayana. Vol. 7, No. 1, hal. 107-121.
- Arieska, Metha and Barbara Gunawan. 2011. Pengaruh Aliran Kas Bebas dan Keputusan Pendanaan terhadap Nilai Pemegang Saham dengan Set Kesempatan Investasi dan Dividen sebagai variabel Moderasi. *Jurnal Universitas Muhammadiyah*, *Yogyakarta*.
- Anton, Sorin Gabriel. 2016. The Impact of Dividend Policy on Firm Value, A Panel Data Analysis of Romanian Listed Firms. *Journal of Public Administration, Finance and Low*. Issue 10.
- Bella, Luh Kadek Githa dan I G.N. Agung Suaryana. 2017. Pengaruh IOS dan Pengungkapan CSR pada Nilai Perusahaan dengan Pertumbuhan Perusahaan Sebagai Variabel Pemoderasi. *E-Jurnal Akuntansi Universitas Udayana*. Vol. 19, No. 1, hal. 508-535.
- Brigham, Eugene F. dan Philip R. Daves. 2010. Intermediate Financial Management. Tenth Edition. South-Western Cengage Learning: USA
- Budagaga, Akram. 2017. Dividend Payment and Its Impact on the Value of Firm Listed on Istanbul Stock Exchange: A Residual Income Approach. *International Journal of Economics and Financial Issue*. Vol.7, No.2.
- Chung Kee H dan Charlie Charoenwong. 2013. Investment Options, Assets in Place, and the Risk of Stocks. *Financial Management*. Vol. 20. No. 3, pp: 21-33.
- Dewi, Putu Riska Amanda dan I.G.A.M Asri Dwija Putri. 2017. Pengaruh Kebijakan Dividen pada Nilai Perusahaan dengan Pengungkapan CSR dan Good Corporate Governance Sebagai Variabel Pemoderasi. *E-Jurnal Akuntansi Universitas Udayana*. Vol. 21, No. 1, hal. 173-199.
- Dhananjaya, Putu Mahendra dan I Ketut Mustanda. 2016. Pengaruh Keputusan Investasi, Keputusan Pendanaan dan Kebijakan Dividen terhadap Nilai Perusahaan pada Peusahaan Manufaktur. *E-Jurnal Manajemen Universitas Udayana*. Vol. 5, No. 10, hal. 6610-6639.
- Dharmastuti, F. Dan A. Wirjolukito. 2004. Analisis Pengaruh Faktor-Faktor Keuangan terhadap Harga Saham Perusahaan Go Public di BEJ. *Jurnal Manajemen Fakultas Ekonomi Atmajaya*. Vol. 1, No. 1, hal. 44-61.
- Embara, Cecilia Triana Dewi Lestari, Ni Luh Putu Wiagustini dan Ida Bagus Badjra. 2012. Variabel-variabel yang Berpengaruh terhadap Kebijakan Dividen serta Harga Saham pada Perusahaan Manufaktur di Bursa Efek Indonesia. *Jurnal Manajemen, Strategi Bisnis, dan Kewirausahaan*. Vol. 6, No. 2 Agustus 2012.
- Fauz, A dan Roshidi. 2007. Pengaruh Aliran Kas Bebas, Kepemilikan Manajerial, Kepemilikan Institusional, Kebijakan Utang dan Collateral Aset terhadap Kebijakan Dividen. Jurnal Ekonomi dan Manajemen. Vol. 8, No. 2, hal. 259-267.
- Fazzari, Steven M, R. Gleen Hubbard, dan Bruce C. Peterson. 1988. *Financing Constraints and Corporate Finance. Brookings Papers of Economic Activity*. Vol. 1988, Issue 1, pp. 141-195

- Fenandar, Gany Ibrahim and Surya Raharja. 2013. Pengaruh Keputusan Investasi, Keputusan Pendanaan dan Kebijakan Dividen terhadap Nilai Perusahaan. *Diponegoro Journal of Accounting*. Vol. 1, No. 2.
- Giriati. 2016. Free Cash Flow, Dividend Policy, Investment Opportunity Set Opportunistic Behavior and Firm's Value (A Study About Agency Theory). *Procedia-Social and Behavioral* Sciences.Vol. 219, pp. 248-254.
- Gregory, Aand Yuan-Hsin Wang. 2010. Cash Acquirers: Free Cash Flow, Shareholder Monitoring, and Shareholder Returns. *Discussion Paper No: 10/07*. University of Exeter, UK.
- Gusti, Bertha Firyanni. 2013. Pengaruh Free Cash Flow dan Struktur Kepemilikan Saham terhadap Kebijakan Utang dengan Investment Opportunity Set sebagai Variabel Moderating. *E-Jurnal Akuntansi Universitas Negeri Padang*. Vol.1, No.2.
- Hashemi, Seyed Abbas dan Fatemeh Zahra Kashani Zadeh. 2012. The Impact of Financial Leverage Operating Cash Flow and Size of Company on Dividend Policy (Case Study of Iran). *Interdiciplinary Journal of Contemporary Research in Business*. Vol. 3, No. 10.
- Hejazil, Rezvan dan Fatemeh Saadati Moshtaghin. 2014. Impact of Agency Cost of Free Cash Flow on Dividend Policy, and Leverage of Firm in Iran. *Journal of Novel Applied Sciences*. Vol 3, No.1. pp. 14-21

Husnan, Suad. 2016. Manajemen Keuangan, Teori dan Penerapan. Edisi Keempat. Yogyakarta: BPFE.

- Ilaboya, O.J dan M.Aggreh. 2013. Dividend Policy and Stock price Volatility. *Jurnal Asian Development Study*. Vol.2, Issue. 2.
- Issa, Ayman I. F. 2015. The Determinants of Dividend Policy: Evidence from Malaysian Firms. *Research Journal of Finance and Accounting*. Vol. 6, No. 18, pp. 69-86
- Jakata, Owen dan Philimon Nyamugure. 2015. The Effect of Dividend Policy on Stock price: Empirical Evidence from the Zimbabwe Stock Exchange. *International Journal Science and Research*. Vol. 4, Issue 10, pp. 674-683
- Jati, I Ketut. 2003. Relevansi Nilai Dividen Yield dan Price Earning Ratio dengan Moderasi Investment Opportunity Set (IOS) dalam Penilaian Harga Saham. *Tesis*. Universitas Gadjah Mada.
- Jensen, M.C. 1986. Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers. *American Economics Review*, 76. May 1986, pp. 232-329.
- Juhandi *et.al.* 2013. The Effect of Internal Factors and Stock Ownership Structure on Dividend Policy on Company's Value (A Study on Manufacturing Companies Listedin the Indonesia Stock Exchange (IDX)). *International Journal of Business and Management Invention*. Vol. 2. Issue 11, pp. 06-18
- Kangarlouei, Banafsheh Ramizipour and Morteza Motavassel. 2014.Investigation of the Impact of Free Cash Flow on Financial Flexibility and Dividend Policy in Firms Listed in Tehran Stock Exchanges (TSE). International Journal of Banking, Risk and Insurance. Vol. 2, Issue 2, pp. 1-9
- Keown, J Arthur, John D. Martin, J. William Petty, David F. Scott Jr. 2017. *Manajemen Keuangan: Prinsip dan Penerapan*. Edisi kesepuluh. Indeks: Jakarta.
- Kieso, Donald E, Weygandt, Jerry J., dan Warfield Terry D. 2011. Akuntansi Intermediate. Edisi 12. Jakarta; Salemba Empat.
- Kusiyah dan Arief. 2017. The Determinants of Firm Value on Commercial Bank in Indonesia. *Journal of Engineering and Applied Sciences*. Vol.2, No.2, pp. 408-416
- Kusumastuti, A.D. 2013. Pengaruh Ukuran Perusahaan, Leverage, Profitabilitas dan Kebijakan Dividen. *Skripsi*. Fakultas Ilmu Administrasi, Universitas Brawijaya, Malang.
- Mansourlakoraj, Sahar Sepasi. 2015. Free Cash Flow, Capital Sructure and the Value of Listed Companies in Tehran Stock Exchange. *International Journal of Management, Accounting and Economic.* Vol. 2, No. 2, pp. 144-148.
- Maringka, Tonny Serfius, Moeljadi, Atim Djazuli, Kusuma Ratnawati. 2016. Leverage, Free Cash Flow, and Interest Rates Influence of Stock Return and Financial Performance as Intervening Variables (Study on Manufacturing Industry Listed in Indonesia Stock Exchange. *International Journal of Business and Management Invention*. Vol 5, No. 2.
- Masum, Abdullah Al. 2014. Dividend Policy and Its Impact on Stock Price-A Study On Commercial Banks Listed in Dhaka Stock Exchange. *Global Disclosure of Economic and Business*. Vol. 3, No. 1.
- Nasrum, Muhammad, Dahlan dan Abdul Hafid Burhami. 2015. The Effect Ownership Structure, Corporate Governance, Investment Decision, Financial Decision and Dividend Policy on the Value of the Firm Manufacuring Companies Listed on Indonesin Stock Exchange. *British Journal of Economics, Finance and Management Sciences*. Vol. 10, No. 2.
- Ningrum, Nurani Puspa. 2017. Determinan Kebijakan Dividen. *Jurnal Akuntansi Multiparadigma*. Vol. 8. No. 3. Hal.499-510.
- Nurrohman. 2013. Pengaruh Eaning Per Share, Return Saham, Kualitas Audit, dan Hasil Laba terhadap Return Saham Satu Tahun Kedepan (Studi Empiis Pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2010-2011. *Skirpsi*. Fakultas Ekonomika dan Bisnis Universitas Diponegoro, Semarang.
- Nwamaka, Ozumba Chidinma dan Ezeabasili. 2017. Effect of Dividend Policies in Firm Value: Evidence From

Quoted Firms in Nigeria. International Journal of Management Excellence. Vol. 8, No. 2, pp. 956-967.

- Osegbue, Ifeanyi Francis, Meshack Ifurueze, dan Priscillia Ifurueze. 2014. An Analysis of The Relationship Between Dividend Payment and Corporate Performance of Nigeria Banks. *Global Business and Economics Research Journal*. Vol. 3, No. 2, pp. 99-113.
- Pawlina, G dan Renneboog, L. 2005. Is Investment Cash Flow Sensitivity Caused by The Agency Coast or Asymmetric Information? Evidence from the UK. *Discussion Paper*. Tilburg Univertity, Januari.
- Prastika, Ni Gst. A. Pt. Silka. 2013. Pengaruh IOS, Leverage dan Dividend Yield terhadap Profitabilitas dan Nilai Perusahaan Sektor Manufaktur di BEI. E-Jurnal Manajemen Universitas Udayana. Vol. 2, No. 3.
- Puspitasari, Novia Ayu dan Darsono. 2014. Faktor-faktor yang Berpengaruh terhadap Kebijakan Dividen. *Diponegoro Journal of Accounting*. Vol. 3, No. 2, Hal. 1-8.
- Rahmawati, Amalia Dewi, Topowijono dan Sri Sulasmiyati. 2015. Pengaruh Ukuran Perusahaan, Profitabilitas, Struktur Modal, dan Keputusan Investasi terhadap Nilai Perusahaan. *Jurnal Administrasi Bisnis (JAB)*. Vol 23. No. 2.
- Rehman Abdul dan Haruto Takumi. 2012. Determinants of Dividend Payout Ratio: Evidence From Karachi Stock Exchange (KSE). Journal of Conemporary Issues in Business Research. Vol. 1, No. 1, pp. 20-27
- Rehman, Obaid Ur. 2016. Impact of Capital Structure and Dividend Policy on Firm Value. *Journal of Property, Investment and Developmment*. Vol 21, pp. 40-57
- Rizqia, Dwita Ayu, Siti Aisjah dan Sumiati. 2013. Effect of Managerial Ownership, Financial Leverage, Profitability, Firm Size, and Investment Opportunity on Dividend Policy and Firm Value. *Research Journal* of Finance and Accounting. Vol. 4, No. 11.
- Rosdini, Dini. 2009. Pengaruh Free Cash Flow terhadap Dividend Payout Ratio. Working Paper in Accounting and Finance.
- Ross, S. A., R. W. Westerfield, dan B. D. Jordan. 2008. *Corporate Finance Fundamentals*. McGraw-Hill. New York. Terjemahan A. A. Yulianto, R. Yuniasih, dan Christine. 2009. *Pengantar Keuangan Perusahaan*. Edisi kedelapan. Salemba Empat. Jakarta.
- Sartono, R. Agus. 2014. Manajemen Keuangan. Teori dan Aplikasi. Edisi 4. Yogyakarta. BPFE Yogyakarta.
- Sharif, Taimur, Harsh Purohit dan Rekha Pillai. 2015. Analysis of Factors Affecting Stock price: The Case of Bahrain Stock Exchange. *International Journal of Economics and Finance*. Vol. 7, No. 3, pp. 207-216.
- Sriyunianti, Fera. 2013. Pengruh Aliran Kas Bebas dan Kebijakan Utang terhadap Keputusan Investasi. *Jurnal Akuntansi dan Manajemen*. Vol. 8, No. 2, hal. 77-87.
- Suartawan, I Gst. Ngr. Putu Adi dan Gerianta Wirawan Yasa. 2016. Pengaruh Investment Opportunity Set dan Free Cash Flow pada Kebijakan Dividen dan Nilai Perusahaan. *E-Jurnal Akuntansi Universitas Udayana*. Vol. 4, No. 3, hal. 2014-2044
- Sudiyatno, Bambang dan Elen Puspitasari. 2010. Tobin's Q dan Altman Z-Score Sebagai Indikator Pengukuran Kinerja Perusahaan. *Kajian Akuntansi*. Vol. 2. No.1. ISSN 1979-4886.
- Sunariyah. 2004. Pengantar Pengetahuan Pasar Modal Edisi Keempat. Yogyakarta : UPP AMP YKPN.
- Thanatawee, Y. 2011. Life-Cycle Theory and Free Cash Flow Hypothesis: Evidence Policy in Thailand. *International Journal of Financial Research*. Vol 2, No. 2; July 2011.
- Tijjani, Bashir dan Armaya'u Alhaji Sani. 2016. An Empirical Analysis of Free Cash Flow and Dividend Policy in the Nigerian Oil and Gas Sector. *Research Journal of Finance and Accounting*. Vol. 7m No. 12. pp. 154-160.
- Tobing, Rudolf L. 2015. Efek Mediasi Kebijakan Dividen pada Pengaruh Gugus Kesempatan Investasi (IOS) terhadap Rasio Utang dan Nilai Perusahaan. *Jurnal Ilmiah Manajemen Bisnis*. Vol. 15, No.1.
- Vakilifard, Hamid Reza dan Nassim Shahmoradi. 2014. Investigating the Effects of Stable Profitability and Free Cash Flow on Stock Returns of Companies Listed in Tehran Stock Exchanges. International Journal of Academic Research in Accounting, Finance and Management Science. Vol. 4, No. 3.
- Vogt, Stephen C and Joseph D Vu. 2000. Free Cash Flow and Long-Run Firm Value : Evidence From The Value Line Investement Survey. *Journal of Managerial Issues*, Vol. 12, No. 2, pp. 188.
- Wang, George Yungchih. 2010. The Impacts of Free Cash Flows and Agency Costs on Firm Performance. Journal Service Science & Management. Vol.3, pp: 408-418, Department of International Business, National Kaohsiung University of Applied Sciences, Ktgui8uuaohsiung, Taiwan, China.
- Wijaya, Lihan Rini Puspo dan Anas Wibawa. 2010. Pengaruh Keputusan Investasi, Keputusan Pendanaan, dan Kebijakan Dividen terhadap Nilai Perusahaan. *Simposium Nasional Akuntansi XIII* Purwokerto 2010.
- Winarto, Jacinta. 2015. The Determinants of Manufacturer Firm Value in Indoesia Stock Exchange. International Journal of Information, Business and Management. Vol 7, No. 4, pp. 323-349.
- Yuliani, Isnuhardi, dan Semadi W. Bakar. 2013. Keputusan Investasi, Pendanaan, dan Dividen terhadap Nilai Perusahaan dengan Risiko Bisnis sebagai Variabel Mediasi. *Jurnal Keuangan dan Perbankan*. Vol. 17, No. 3, hal. 362-375.
- Zakaria, Zuriawati, Joriah Muhammad, dan Abdul Hadi Zulkifli. 2012. The Impact of Dividend Policy on the

Stock price Volatility: Malaysian Construction and Material Companies. International Journal of Economics and Management Sciences. Vol 2, No. 5, pp. 1-8.

Zuhri, Akhmad Bakkrudin. 2011. Pengaruh Arus Kas Bebas dan Komite Audit terhadap Manajemen Laba. *Skripsi.* Universitas Diponegoro.