# THE DETERMINANT FACTORS OF AUTOMOTIVE INDUSTRY INVESTMENT DECISION IN INDONESIA

Muhammad Rifky Santoso, Financial Education Training Agency, Ministry of Finance Republic of Indonesia Rina Br Bukit, Faculty of Economics and Business, Universitas Sumatera Utara

We suggest you to cite this article as:

Santoso, M.R., Bukit, R.B. 2019. The determinant factors of automotive industry investment decision in Indonesia. *Junior Scientific Researcher*, Vol V, No. 1, pp. 3-17.

#### Abstract

Automotive industry contributes directly and indirectly to economic growth in Indonesia. Investment in this industry has increased after declining in the previous years. This paper examines some internal and external factors influencing the investment decision in this industry by using E-views for listed automotive company in Indonesia Stock Exchange from 2013 to-2017. This study finds that both net cash flow from operation and investment opportunity set (IOS) as internal factors have a significant and positive relationship to the investment decision. The capital market pressure as an external factor has a significant and negative relationship to the investment does not have a significant relationship to the investment decision. The significant variables, the net cash flow from operation is a dominant factor in the investment decision. This fact relates to the report published by Bank Indonesia, as a central bank, that the increasing free cash flow of corporation enhances the investment in Indonesia. This study contributes as a reference to the free cash flow literatures and the capital market authority especially in the developing country.

*Keywords*: investment, cash flow, investment opportunity set, capital market pressure, automotive. *JEL Classification*: D24, D25, L11, L62

#### Introduction

The Indonesian Economic Report published by Bank Indonesia as a central bank explains that Indonesian economy in 2017 has been recovered. This fact is driven by improved global economy growth so that exporting has growth of 9.09% (contraction 1.57% in 2016) and investing has growth 6.15% (growth 4.47% in 2016). The automotive industry has given a significant contribution by growing 9.4% in vehicles exporting that dominated by low cost green car. Investing in the automotive industry has increased to support the other sector industry for renewal transportation equipment (Bank Indonesia, 2018). This report also explains that the increasing of free cash flow of corporations has increased investment. The investment, especially in the automotive sector, has to increase continuously to support economic growth in Indonesia.

The gross fixed capital formation that published by central bank in Indonesia has increased continuously from 2010 until the 3<sup>rd</sup> quarter of 2016. The investment growth has been more than 90% in that of the years. This investment has a positive relation to the growth of Indonesia economy.

According to BKPM (the investment Coordinating of the Republic of Indonesia), the investment in motor vehicles and other transportation equipment industry has a fluctuated trend from 2013 until 2016. The data can be seen in Table 1.

	2013	2014	2015	2016
Foreign Investment (USD Million)	3,732.2	2,061.3	1,757.3	2,369.3
Domestic Investment (Rp Billion)	2,069.0	490.0	1,070.8	1,713.9

Table 1. Motor Vehicle & Other Transportation Equipment Industry Investment in Indonesia
--

Source: BPS-Statistics Indonesia and The Association of Indonesia Automotive Industries.

From Table 1, the foreign investment in this industry is higher than that of domestic investment. The trend of investment starts decreasing in the year of 2014. Therefore, in 2016 the investment starts increasing for foreign investment.

From this fact, there is a point when investment increasing or decreasing. Every fluctuated investment has a different impact. Too many investments (overinvestment) and too low investment (underinvestment) can be an abnormal investment. There is a negative relation between an abnormal investment and future stock returns (Titman, Wei, & Xie, 2004). In making an investment, a corporate will consider its free cash flow (FCF). FCF is the excess of required cash by using net present value (Jensen, 1986). However, there is a problem in FCF. The company has to decide whether the FCF is used to invest or to distribute as dividend. In this case, FCF has an agency problem (Zhang, Cao, Dickinson, & Kutan, 2016). Besides having a problem, the FCF has a key role in making investment or paying dividend (Yeo, 2018). In other side, a company with greater FCF will lead its action to increase investment and to decrease dividend (Zhang et al., 2016).

The capital market expects the highest of a company's value. For this reason, the company's manager will act their behavior leading to increase the company's share value. One way to increase the value is to make investment, especially with the lowest tax expenses or in tax shelter activities (McGuire, Omer, & Wilde, 2014). It means that the investment should make the biggest net present value. The crucial party to make investment is managers that are monitored by the Board of Directors. The managers will meet their own purposes and the capital market expectation by increasing the company's value (Jensen, 1986). However, the managers tend to invest in the project that giving the maximum value in the short term (Bhojraj & Libby, 2005).

The fact that the automotive industry has contribution to economic growth in Indonesia is interesting to be studied as it relates to FCF as a source of fund for investment and capital market pressures can influence investment. This paper includes the investment opportunity set (IOS) and Commissioners as other variables influencing investment. This study finds that investment is influenced by internal factor (cash available from operation and IOS) and external factor (capital market pressure). By comparing the coefficient of the variables, cash from operation is the main factor in making an investment. This finding is suitable with the previous research.

This study contributes to the literature about variables influencing investment, especially FCF and capital market pressure. In the country with good banking and capital market system, the procedures to obtain funding in making investment are transparent and clear. For the developing country, such as Indonesia, the main source fund in making investment is FCF. The capital market pressure, either in a developing country or developed country, has a significant effect in making investment. Generally, all actors in the capital market want the company's shares increasing. For the decision maker, this paper can be a reference to make policy about getting fund to invest, either from banking, capital market or other sources. Besides lending money policy, the capital market regulator can meet the capital market expectation by asking the listed companies to publish transparent report when making investment.

#### Literature review

#### Theory

There are different characters between managers (as agents) and owners (as principles). Each character will generate agency cost theory (Jensen & Meckling, 1976). Free cash flow (FCF) in a company has a key role in fulfilling the desires of both managers and shareholders. The managers need the FCF to make future investment that increasing the firm's value. This value is the managers' motivation because the value can be a base in calculating incentives. However, the shareholders have another interest in the FCF. The shareholders want to receive dividend from their investment. To resolve this gap, the role of debts can be used by a company to make investment (Jensen, 1986; Yeo, 2018). The debts can be a tool to reduce the agency cost (Jensen, 1986).

The capital market theory explains how investors behave not should investors behave towards to their investment in the capital market. This behaviors relate to the price of time and price of risk from the investment (Sharpe, 1964). The investors' behaviors are based on facts or information received by them. The capital market actors give positive response to the company with positive value growth and otherwise. These capital market behaviors are pressure to the managers to increase the company's value. There are many ways to increase the value and one of them is by making investment that generates a greater profit margin. With market perfect assumption, the company instantly gets enough capital to generate profit from the investment opportunity (Merton, 1987).

Based on the neo-classical theory of investment (NTI), the marginal rate of return on investment is equal to an interest rate (Gordon, 1992). Assumption for the NTI, the future is certain and the risk-free rate equals to the interest rate. The relation among investment, free cash flow, and capital market pressure is the capital cost for investing and calculating the return. The company considers in using FCF rather than loan money and considers capital market pressure in choosing the investment area. The expected return is compared to costs of debts and capital after adjusted with tax expenses (Hall & Jorgenson, 1967). TobinQ or q-theory is a base in application of the NTI (James Tobin, 1969). The q-theory explains that a company invests as long as the value of marginal investment for shareholders more than cost, or the value to cost of the marginal investment ratio more than 1.

#### **Previous Study**

The investment increases the firm's value. Cash as funding is needed in investing. This cash can be from internal, such as cash from the operation or external such as loan from creditors. Both of the cash resources influence the firm's value. However, the Mogdiglini-Miller's theorem (Modigliani & Miller, 1958) explains that the capital structure of a company does not have relation to the firm's value. It means that the capital sources, internal and external, to invest do not relate to the value. The free cash flow (FCF) theory explains that the excess of cash flow can increase the investment expenditures (Jensen, 1986). The availability of free cash indirectly can increase the firm's value because there is an opportunity to invest in the future that can generate more cash inflow.

The firm's value, as a capital market actors' consideration, consists of some components, such as land, property, equipment, machine, trademark, and cash. From these components, only cash is freely used by the managers (Yeo, 2018). The effectiveness of using asset by the managers can raise the firm's value, and otherwise. The using of FCF can be a conflict between the managers and the shareholders. This conflict can raise the agency problem and induce the agency cost (Jensen, 1986). Because of the weak of corporate governance, the sales growth that increasing the firm's value gives more benefits to the manager than that of the shareholders (Brush, Bromiley, & Hendrickx, 2000).

To reduce the agency cost, the capital market has significant role because the capital market can influence the managers' behavior. These managers tend to modify their behavior by the number in the financial statement reports (Graham, Harvey, & Rajgopal, 2005). The modification can be from the

investment decision. The company facing more the capital market pressure is likely to invest in the tax sheltering activities (McGuire et al., 2014).

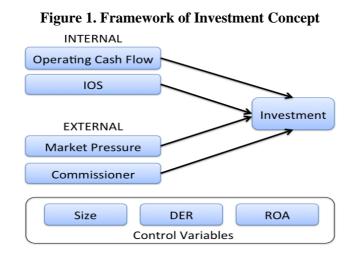
For the listed company in Indonesia, the corporate governance application obligates the company to have at least 30% of the independent commissioners from the number of the board of commissioners (Otoritas Jasa Keuangan, 2014). The independent commissioner can be effectively to supervise the managers' activity. The reduction of the audit committee that supervise the management can increase the abnormal accrual (Klein, 2002). Besides the existence of the independent party, such as commissioners, the composition of the commissioners is important because the composition can strengthen the corporate governance. The commissioners can control the management in making financial statement and prevent the controlling shareholders that can be disadvantage another shareholders (Liu & Lu, 2007).

The investment leads to the company's growth. The investment opportunity set (IOS) relates to the payoff distribution in the future such as the executives' compensations (Smith & Watts, 1992). The IOS is unique because the IOS can influence the firm's value in the future (Gaver & Gaver, 1993). The amount of the IOS has association to lower dividend yield, higher compensation for executive, higher of stock plan, and lower debt equity ratio (Gaver & Gaver, 1993; Smith & Watts, 1992). The company with larger the IOS tends to make investment because of the manager's discretion (McGuire et al., 2014) and the managers have interests in compensations (Gaver & Gaver, 1993; Smith & Watts, 1992). For this reason, the IOS will be complex because the external party will be difficult to monitor the company, especially the external auditor (Cahan, Godfrey, Hamilton, & Jeter, 2008).

Based on the literatures, this paper explains the internal and external factors influence the investment decision in the automotive industry in Indonesia.

#### **Conceptual Framework**

The conceptual framework in this study is based on the previous research with some modifications. The relations amongst the variables in this study are described in the Figure 1.



In Fig.1, Operating cash flow (OCF) has relation to investment. OCF is the net cash from operation. This cash is considered to make investment or to pay dividend. This study examines the role of this cash in making investment. The IOS (investment opportunity set) can or cannot influence the investment decision because it depends on the timing and the marginal benefit from the investment. The capital market pressure (market pressure) has relation to the company reports' quality. The reports include a financial statement report and an annual report. Besides the reports, the company's reputation has relation to market pressure. Commissioner can influence the investment decision. The independent

commissioner is representative of minority and public shareholders. The independent commissioners have to act for the benefit of minority and public shareholders.

There are many variety variables can influence the investment decision in a company. To control the independent variables, this paper using some control variables, namely:

- 1. Size, to control the total asset differences or the firm size effect from the sample.
- 2. DER, to control the proportion of capital sources, from debt or shares.
- 3. ROA, to control the earning differences from each company.

# **Hypothesis**

The literature and the report published by Central Bank in Indonesia explain that free cash flow (FCF) has positively significant in the investment decision. However, some literature explain that in a certain point, there is a conflict of interest about the using of FCF, to invest or to pay dividend. This paper assumes there is a positive relation between FCF and investment. The hypothesis is:

H1: There is a positive relation between net cash flow from operation and investment.

The greater IOS, the more complex the company's problem, such as information about environment (Rego, 2003), the proportion debt and equity, and the payment of dividend (Smith & Watts, 1992). The investment decision is the managers' discretion and it is difficult to be predicted and monitored by external party (McGuire et al., 2014). This the reason the IOS is unique construct. The greater IOS leads to higher executive compensation and lower the cash payment. The shareholders expect the dividend payment from the company growth that resulted from the investment decision. This fact does not give a clear relation between the IOS and the investment decision, therefore this paper test the hypothesis:

H2: There is a positive relation between the IOS and investment

The capital market influences the company in order to maintain or to increase the firm's value through the share price. The managers in the company make effort optimally to publish the financial statement reports that can meet the capital market expectation (Graham et al., 2005). The managers attempt to disclose all the data and information to reduce the company risk and to meet the capital market expectation, to predict share prices. One of the ways to increase the prices is by making investment (McGuire et al., 2014). The capital market pressure is measured by the difference between the highest and the lowest share prices in the period of accounting. If the market reaction gets bigger, the share prices difference will be bigger, for example the price to be lower. The company reacts by investing to increase the share prices. Therefore, the relation between the capital market pressure and investment is negative. This paper test the following hypothesis:

H3: There is a negative relation between the capital market pressure and investment

For the country with dual-system, such as Indonesia, there is a commissioner to monitor and to align the management action and decision. In order to protect the minority interest and public shareholders, the listed company should have the independent commissioner in its organizational structure. The capital market regulation states that the percentage of independent commissioner in the listed company is 30% at least. The more percentage of the independent percentage, the more active the independent influence the investment decision. This intervention can slow down the managers in making investment decision. This paper test the following hypothesis:

H4: There is a negative relation between the percentage of independent commissioner and investment

views software. The structure equation in this study is:

# Methods

# Types of Research

This paper uses a correlational research. The aim of this research is to analyze the relation between internal factors and external factors that influencing investment. The internal factors consist of cash from operation and IOS. The external factors are capital market pressure and commissioners. Because the samples of this paper are not equal, such as size, the controlling variables are used in running data. The control variables are size, debt equity ratio (DER), and return on asset (ROA). The analysis descriptive explains units of analysis based on each variable in this study. The purpose of the analysis is to understand the unit characters based on the theory. All the information is explained descriptively. From the conceptual framework, data analysis uses multiple regression analysis and E-

# Invest<sub>i,t</sub> = $\alpha$ + $\beta_1$ OperatingCashFlow<sub>i,t</sub> + $\beta_2$ IOS<sub>i,t</sub> + $\beta_3$ MarketPressure<sub>i,t</sub> + $\beta_4$ Commissioner<sub>i,t</sub> + $\beta_5$ Log(Size)<sub>i,t</sub> + $\beta_6$ DER<sub>i,t</sub> + $\beta_7$ ROA<sub>i,t</sub> + $\varepsilon_{i,t}$

Where  $Invest_{i,t}$  is Investment decision; OperatingCashFlow\_{i,t} is Net Cash From Operating;  $IOS_{i,t}$  is Investment opportunity set; MarketPressure\_{i,t} is Capital Market Pressure; Commissioner\_{i,t} is the percentage of the Independent Commissioner. The variables examined in this paper are explained in Table 2.

Variables	Symbol	Descriptions
Investment Decision (Dependent Variable)	Invest	The sum of capital expenditures, research and development expenditures, and acquisitions (McGuire et al., 2014). These expenditures are scaled by the total fixed asset. All the investment expenditures considered are related to automotive and component industry. If the company has expenditures other this industry, the expenditures are not calculated.
Net Cash From Operating (Independent Variable)	Operating Cash Flow	The Operating Cash Flow (OCF) is defined as the net cash flow from operation scaled by total asset (McGuire et al., 2014)
Investment opportunity set (Independent Variable)	IOS	The IOS is the ratio of the market value of a firm to the book value of its assets (McGuire et al., 2014). The data of a firm's market value are derived from the capital market publications.
Capital Market Pressure (CMP) (Independent Variable)	Market Pressure	The CMP is measured by using share price (Li & Mangena, 2014). The CMP is defined by the difference between the highest and the lowest share price during the financial year of the study, scaled by the lowest share price. This proxy is as a share price volatile (Bushee, Matsumoto, & Miller, 2001; Li & Mangena, 2014)
The percentage of the Independent Commissioner (Independent Variable)	Commissioner	Commissioner is defined by the percentage of the independent commissioners to the total commissioners in the company during the financial year of the study. If there is a change in the composition of the independent commissioners, the percentage used is the longest period in the year of study
Size (Control Variable)	Log (Size)	Size is defined as the natural log of the total assets. The size variable is important in this study because the larger firm is more complex in nature and the can achieve economies of scale (Rego, 2003).
Debt to equity ratio (Control Variable)	DER	DER (debt to equity ratio) is defined as total debt scaled to total equity.
Return on asset (Control Variable)	ROA	ROA (return on asset) is defined as a ratio of pre-tax income over total assets.

Table 2. The Description of the Variables

# Data

This paper uses data from manufacturing listed company in Indonesia Stock Exchange (ISE) for period 2013 -2017. The data are obtained from website of ISE (<u>www.idx.co.id</u>). The sample is companies with automotive and component sector. The sample companies are:

- 1. Astra International Tbk.
- 2. Astra Otoparts Tbk.
- 3. Gajah Tunggal Tbk.
- 4. Garuda Metalindo Tbk.
- 5. Goodyear Indonesia Tbk.
- 6. Indo Kordsa Tbk.
- 7. Indomobil Sukses International Tbk.

- 8. Indospring Tbk.
- 9. Multi Prima Sejahtera Tbk.
- 10. Multistrada Arah Sarana Tbk.
- 11. Nipress Tbk.
- 12. Prima Alloy Steel Universal Tbk.
- 13. Selamat Sempurna Tbk.

PT. Garuda Metalindo Tbk listed in July 7, 2015. For this reason, data from PT. Garuda Metalindo Tbk are empty for the years of 2013 and 2014.

#### **Results**

#### **Descriptive Statistic**

Table 3 presents the summary descriptive statistics of the data used in this study. The difference between the maximum and minimum investment is quite wide. The minimum investment is negative because of PT. Prima Aloy Steel Universal Tbk has reported Rp.0,00 for investment in 2017. All the mean value of the variables is higher than the median value. The minimum value of Operating Cash Flow is negative because some companies in certain year have negative net operating cash flow.

The maximum value of the market capital pressure is very high (2539% more than of the mean value). This is due to the high share price of a company (PT. Nipress Tbk) before the stock split in 2013. The mean of IOS is more than 1 (1.355145). It means that as general the market value of the sample is higher than that of the book value. There is one company with the highest IOS. The company is PT. Selamat Sempurna Tbk, with IOS more than 6 in 2014. As the whole, PT. Selamat Sempurna Tbk has IOS more than 3 in this study.

The regulation states that the minimum percentage of the independent commissioner in the listed company is 30% at least. All, except one, of the companies in this study, have obeyed the regulation (with mean 0.36 and median 0.33). PT. Nipress Tbk has not met the minimum percentage of the independence commissioner yet for the year 2017.

There is quite wide in total asset between the biggest and the little company in this sample. The biggest asset is PT. Astra International Tbk with total assets Rp.295.646 billion in 2017. The little asset is PT. Multi Prima Sejahtera Tbk with total assets Rp. 185.596 million in 2014. Because of this big gap, the data of assets are converted to logarithm.

The normality of the residual variables is not normal at all variables as presented in Jarque-Bera values. Only two variables with normal residue are Operating Cash Flow and Log(Size). As an equation, the residual variable is normal. The probability of the normal residual is more than 5% (significant level), namely 0.353.

Variables	n	Mean	Median	Max	Min	Std. Dev.	Jarque- Bera
Invest	63	0.120938	0.092161	0.495234	3.79E-05	0.116064	34.21528
Operating Cash Flow	63	0.061842	0.055405	0.263377	-0.103270	0.079957	3.964464

Table 3. Descriptive Statistic

IOS	63	1.355145	0.945936	6.094203	0.119689	1.244176	65.83034
Market pressure	63	2.432773	0.837349	64.66667	0.226230	8.132667	7991.958
Commissioner	63	0.362410	0.333333	0.500000	0.250000	0.054671	16.43016
Log(Size)	63	29.15423	28.53818	33.32018	25.94684	1.732640	4.660627
DER	63	1.200159	0.880000	8.260000	0.150000	1.321809	582.7863
ROA	63	0.066388	0.037472	0.727854	-0.180379	0.119986	569.7337

# **Correlation**

Table 4 present the correlation among the variables used in this study. The independent variable (Investment) has a positive correlation to Operating cash flow with 0.391 and to IOS with 0.452. The independent variable has a negative correlation to Marketing Pressure with -0.062; and to Commissioner with -0.127. The highest correlation is 0.556, between IOS and operating cash flow. Because all the correlations are below 0.800, the variables used in this study are free from multicollinearity.

Variables	Invest	Operating Cash Flow	IOS	Market Pressure	Commiss ioner	Log (Size)	DER	ROA
Invest	1.000							
Operating Cash Flow	0.391	1.000						
IOS	0.452	0.556	1.000					
Market Pressure	-0.062	-0.238	-0.070	1.000				
Commis-sioner	-0.127	-0.101	0.092	-0.102	1.000			
Log (Size)	-0.138	0.041	0.062	-0.174	-0.035	1.000		
DER	0.077	-0.341	-0.117	0.140	-0.061	-0.048	1.000	
ROA	0.060	0.375	0.497	0.052	-0.053	-0.124	0.007	1.000

# Table 4. The Correlation Matrix

#### **Regression Result**

After testing about fixed effect or random effect, the fit model in this study is the fixed effect. This model is tested about heteroskedasticity, unfortunately, there is heteroskedasticity in this model. To make the model being fit, the model is regressed by using Cross Section Weight and White Diagonal. This treatment is to cover the heteroskedasticity. The data in this model are panel unbalanced; therefore, the regression is using no.d.f correction in Coefficient Covariance Method. The results of the regression are shown in Table 5.

Variable	Coefficient	t-Statistic	Prob.
С	-0.243016	-0.596826	0.5538
Operating Cash Flow	0.422205	2.092917	0.0423
IOS	0.065967	5.014634	0.0000

#### Table 5. Regression Result – Investment

Market Pressure	-0.002297	-2.368522	0.0224
Commissioner	-0.155978	-0.522288	0.6042
Log (Size)	0.010650	0.881296	0.3831
DER	0.009904	1.182688	0.2434
ROA	-0.177773	-3.880285	0.0004
Weighted Statistics:			
R-squared	0.847153	Prob(F-statistic)	0.000000
Adjusted R-squared	0.779617	Durbin-Watson stat	2.051477
<b>Unweighted Statistics:</b>			
R-squared	0.550988	Durbin-Watson stat	2.081112

This model is accepted because the Prob(F-statistic) is less than 5% (significant level). This model is free from autocorrelation because the DW number is in the area not to reject Ho after comparing to D-W Table. This model has R-squared equals to 0.847. It means that the variables explain the investment decision of about 84.7%.

#### Discussion

Table 5 shows that the internal factors, net cash from operation and IOS, have a positive and significant relation to the investment decision. This significant level of IOS is 1% and of net cash from operation is 5%. The external factor influencing the investment decision is capital market pressure with negative and significant relation. The significant level of the capital market pressure is 5%. In this case, the capital market pressure is the share price volatile. The composition of the independence commissioners does not have a significant relation to the investment decision. The correlation between the investment decision and the composition of the independent commissioners is negative.

Net cash flow from operation is the cash received from main operation activity business of the company, namely cash received from customers is reduced by cash disbursement to obtain sales including interest payment and tax payment. This paper finds that the free cash flow in this case the net cash from operation, has a key role in the investment decision (Jensen, 1986; Yeo, 2018; Zhang et al., 2016). From the previous literature, the company invests by using free cash flow and consequently the cash dividend will reduce. Based on the pay out ratio, the portion of the cash dividend of the companies as sample in this paper can be seen in Table 6. Pay out ratio is the proportion of earnings paid out as dividends to shareholders, typically expressed as a percentage.

2013	2014	2015	2016	2017
45.04	45.59	49.54	44.87	11.79
50.53	53.08	40.85	10.37	-
28.96	12.91	-	2.78	-
		60.01	-	-
21.63	-	-	24.82	-
-	26.23	38.86	26.08	-
9.87	-21.57	-60.47	-4.78	-
	45.04 50.53 28.96 21.63	45.04 45.59 50.53 53.08 28.96 12.91 21.63 - 26.23	45.04 45.59 49.54   50.53 53.08 40.85   28.96 12.91 -   60.01 21.63 -   - 26.23 38.86	45.04   45.59   49.54   44.87     50.53   53.08   40.85   10.37     28.96   12.91   -   2.78     60.01   -   24.82     -   26.23   38.86   26.08

#### Table 6. **Pay Out Ratio** (%)

Indospring Tbk	138.16	28.49	-	-	-
Multi Prima Sejahtera Tbk	-	-	-	-	-
Multistrada Arah Sarana Tbk	40.76	-	-	-	-
Nipress Tbk	-	-	-	-	-
Prima Alloy Steel Universal Tbk	-	-	-	-	-
Selamat Sempurna Tbk	65.46	42.70	62.28	20.66	$171.95^{*}$

\*per September 2017.

Data are per 31 January 2018 and

Table 6 shows that most of the samples do not pay the cash dividend and the pay out ratio less than 50% to the shareholders in the period of the study. The finding in this paper about FCF conforms to the previous researchers that the FCF tends to use in the investment decision rather than to pay the cash dividend (Zhang et al., 2016).

The IOS as a ratio of the market value to the book value has a positive and significant relation to the investment decision. The bigger the market value leads the manager behavior to the investment decision. However, the IOS has a negative association to the cash dividend. The correlations among the IOS, the investment decision, and the cash dividend in Table 6, explain that the higher market value of the company leads the manager to increase the investment and to reduce the cash dividend or the pay out ratio to be lower. The managers change their behavior to increase the company growth and expect the compensation increasing (Gaver & Gaver, 1993; Smith & Watts, 1992).

The capital market pressure as a share price volatile, is defined as the difference between the highest and the lowest share price during the financial year of the study, scaled by the lowest share price. The bigger the share price volatile, the company has a trend to reduce the investment decision. The coefficient of the capital market pressure as a variable is -0.002297 that means the increase of the share price volatile for 1 point will decrease the investment decision for 0.002297 point. Therefore, the increasing of the share price volatile for 0.1 points will decrease the investment decision for 0.0002297 point. For example, the highest share price is Rp.6,00 and the lowest share price is Rp.4,00 therefore the capital market pressure equals to 0.5 ((6-4)/4). If the capital market pressure or the volatile increases 0.1 points, the volatile will equal to 0.6 (0.5+0.1). With assumption the lowest share price is fixed, the highest share price equals to Rp. 6,40 (increasing 6.67%). Therefore, the investment decision equals to 0.04 (800/20.000). The investment decision will drop by 0.0002297 points. With assumption the capital expenditure equals to 0.03977 (0.04 minus 0.0002297). If the fixed asset is constant, the capital expenditure equal to be Rp.795,40 or minus Rp.4,60 (0.575%).

The bigger the gap between the highest and the lowest share price, the investment decision tends to reduce and vice versa. The capital market pressure generates this gap getting bigger is not good for the company because it can be a speculation in the market, especially in Indonesia. The big gap is not the best indicator to measure the company's performance. For this reason, the company's reaction is to keep the gap from being too large. This finding is different from Li & Mangena (2014) that explains the positive relation between the gap and the company's behavior. This gap or the capital market pressure has a positive and significant relation to the company's reports in order giving information (Bushee et al., 2001; Graham et al., 2005; Li & Mangena,

2014). This paper finds that the share price volatile as the capital market pressure has a negative and significant relation to the investment decision.

The existence of the outsider in the company, such as the independent commissioners, can reduce the excessive in taking risk, improve the company's performance(Zagorchev & Gao, 2015) and increase the earning in the company (Cornett, McNutt, & Tehranian, 2009). The previous researches explain that the roles of the independent commissioners are to monitor and to control the management, and to bring their experiences from outside to the company (Cornett et al., 2009). These roles can improve the corporate governance and protect the minority shareholders' interests. The composition of the independent commissioners does not have significant relation to the investment decision (Table 5). The investment decision is the management discretion and the independent commissioners have function to ensure that good corporate governance well implemented.

The coefficient value of the operating cash flow variable is the biggest value, 0.422 (see Table 5). This variable is a dominant variable in the investing decision. Table 1 shows that investment in motor and vehicle transportation equipment industry has increased after declining in 2015. It is a question whether the FCF a dominant fund to make investment in the automotive industry in Indonesia.

Table 7 shows that the big 3 groups of bank in Indonesia has given a loan to the manufacture industry from 2013 until 2017. The sum of the loan has continuously increased by 78.35% from 2013 to 2017. Data in Table 7, for all industry include automotive industry, are used as a description that the loan in the manufacturing industry is increasing.

Table 7. Outstanding of investment Loan – Manufacture industry (Kp. binons)								
Group of Bank	2013	2014	2015	2016	2017			
State Banks	309,360.30	437,803.57	519,205.84	608,782.45	628,490.34			
Private National Banks	533,816.92	673,387.51	769,048.15	817,061.52	865,881.62			
Foreign Banks and Joint Banks	81,996.85	131,667.29	169,740.82	161,006.89	155,672.98			
Total	925,174.07	1,242,858.37	1,457,994.81	1,586,850.86	1,650,044.94			

Table 7. Outstanding of Investment Loan – Manufacture Industry (Rp. Billions)

Source: Bank Indonesia

By analyzing data in Table 3, it appears that DER has a mean of 1.2 and median of 0.88. This data show that the companies as samples are not aggressive in using a loan for the investment decision although the average of interest rate from the big 3 banks group is 11.17% from 2013 until 2017 (see Table 8). The trend of this interest rate has been declining since 2014.

There is a quite different condition from the facts, namely the increasing in the investment, the increasing in loan, the lower of DER ratio, and the FCF as dominant factor in the investment decision. Normally, the increasing of loan will lead to the increasing of DER ratio. The FCF as a dominant factor in the investment decision will lead the decreasing in the loan. Table 1 shows that most of the fund resources are from foreign investment to invest in the automotive industry. This foreign funding is still question, as loan or equity in a company.

Therefore, this probability can be a next research how the automotive industry get funds to making investment.

 
 Table 8. Interest Rate Of Rupiah Loans By Group Of Banks (%)
 **Group of Bank** 2013 2014 2015 2016 2017 State Banks 10.39 10.90 10.42 11.24 11.44 12.94 Private National Banks 11.99 12.95 12.16 11.45 Foreign Banks and Joint Banks 9.87 10.94 10.76 10.50 9.62

Source: Bank Indonesia

### Conclusion

The trend of investment in automotive industry has increased since 2015. This trend is accordance with the Report published by Bank Indonesia. This paper examines the determinant factors in the investment decision in the automotive industry. This paper finds that the investment decision is influenced by internal factors and external factors. The net cash flow from operation and IOS as internal factors have a positive and significant relationship to the investment decision. The capital market pressure as an external factor has a negative and significant relationship to the investment decision. The composition of the independence commissioner in the company does not have significant relation to the investment decision.

This paper finds that free cash flow (FCF) is a dominant variable in the investment decision by comparing the coefficient in the regression results. This result is suitable to the previous researches that explain the FCF is used in the investment and consequently the cash dividend is lower. The capital market pressure as an external factor influences the manager in the investment decision by reaction in the share value. Because this value can influence the managers' compensation, the capital market can lead the manager behavior. However, the independent commissioners cannot influence the investment decision. The independent commissioners have a role in the application of the corporate governance and the investment decision is the managers' discretion.

There is a little bit difference between the regression results and the other data. The FCF is a dominant variable in the investment decision and consequently the cash dividend is lower. There is an increasing in the loan and the DER is not big. However, there is an increasing the foreign investment in this industry. There is a question about this foreign investment whether as loan, equity, or others. These facts can be a trigger for the previous research. The data in this study have limitation because the period is only 5 years and unbalanced observation. This limitation can be a consideration in making future research.

#### References

- 1. Bank Indonesia. (2018). *Laporan Perekonomian Indonesia 2017. Bank Indonesia*. Jakarta. Retrieved from https://www.bi.go.id/id/publikasi/laporan-tahunan/perekonomian/Pages/LPI\_2017.aspx
- Bhojraj, S., & Libby, R. (2005). Capital market pressure, disclosure frequency-induced earnings/cash flow conflict, and managerial myopia. *Accounting Review*, 80(1), 1–20. https://doi.org/10.2308/accr.2005.80.1.1
- 3. Brush, T. H., Bromiley, P., & Hendrickx, M. (2000). The Free Cash Flow Hypothesis for Sales Growth

and Firm Performance. Strategic Management Journal, 21(Issue 4), 455.

- Bushee, B. J., Matsumoto, D. A., & Miller, G. S. (2001). Open versus Closed Conference Calls: The Determinants and Effects of Broadening Access to Disclosure. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.255996
- Cahan, S. F., Godfrey, J. M., Hamilton, J., & Jeter, D. C. (2008). Auditor specialization, auditor dominance, and audit fees: The role of investment opportunities. *Accounting Review*, 83(6), 1393–1423. https://doi.org/10.2308/accr.2008.83.6.1393
- Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). Corporate governance and earnings management at large U.S. bank holding companies. *Journal of Corporate Finance*, 15(4), 412–430. https://doi.org/10.1016/j.jcorpfin.2009.04.003
- Gaver, J. J., & Gaver, K. M. (1993). Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Accounting and Economics*, 16, 125–160. https://doi.org/10.1016/0165-4101(93)90007-3
- 8. Gordon, M. J. (1992). The Neoclassical and a Post Keynesian Theory of Investment. *Journal of Post Keynesian Economics*, 14(4), 425–443. https://doi.org/10.1080/01603477.1992.11489909
- 9. Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1–3), 3–73. https://doi.org/10.1016/j.jacceco.2005.01.002
- Hall, R. E., & Jorgenson, D. W. (1967). Tax Policy and Investment Behavior. *The American Economic Review*, 57(3), 391–414. Retrieved from http://www.jstor.org/stable/1812110
- 11. James Tobin. (1969). A General Equilibrium Approach To Monetary Theory. *Journal of Money*, *Credit and Banking*, 1(1), 15–29. Retrieved from http://www.jstor.org/stable/1991374
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow , Corporate Finance , and Takeovers Agency Costs of Free Cash Flow , Corporate Finance , and Takeovers. *American Economic Review*, 76(2), 323– 329. Retrieved from http://dx.doi.org/10.2139/ssrn.99580
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
- 14. Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375–400. https://doi.org/10.1016/S0165-4101(02)00059-9
- 15. Li, J., & Mangena, M. (2014). Capital market pressures and the format of intellectual capital disclosure in intellectual capital intensive firms. *Journal of Applied Accounting Research*, 15(3), 339–354. https://doi.org/10.1108/JAAR-12-2013-0117
- Liu, Q., & Lu, Z. (Joe). (2007). Corporate governance and earnings management in the Chinese listed companies: A tunneling perspective. *Journal of Corporate Finance*, 13(5), 881–906. https://doi.org/10.1016/j.jcorpfin.2007.07.003
- 17. McGuire, S. T., Omer, T. C., & Wilde, J. H. (2014). Investment Opportunity Sets, Operating Uncertainty, and Capital Market Pressure: Determinants of Investments in Tax Shelter Activities? *The Journal of the American Taxation Association*, *36*(1), 1–26. https://doi.org/10.2308/atax-50599
- 18. Merton, R. C. (1987). A Simple Model of Capital Market Equilibrium with Incomplete Information. *The Journal of Finance*, 42(3), 483–510. https://doi.org/10.1111/j.1540-6261.1987.tb04565.x
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(3), 261–297. Retrieved from http://www.jstor.org/stable/1991374
- 20. Otoritas Jasa Keuangan, R. I. (2014). Peraturan OJK No.33/POJK.04/2014 Tentang Direksi Dan Dewan Komisaris Emien Atau Perusahaan Publik. *Ojk.Go.Id*, 1–29. Retrieved from http://www.ojk.go.id/id/kanal/iknb/regulasi/lembaga-keuangan-mikro/peraturan-ojk/Documents/SAL-POJK PERIZINAN FINAL F.pdf
- 21. Rego, S. O. (2003). Tax-avoidance activities of US multinational corporations. *Contemporary Accounting Research*, 20(4), 805–833. https://doi.org/Doi 10.1506/Vann-B7ub-Gmfa-9e6w
- 22. Sharpe, W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *The Journal of Finance*, *XIX*(3), 425–442.
- 23. Smith, C. W., & Watts, R. L. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics*, 32(3), 263–292. https://doi.org/10.1016/0304-405X(92)90029-W
- 24. Titman, S., Wei, J., & Xie, F. (2004). Capital Investments and Stock Returns. *Journal of Financial and Quantitative Analysis*, 39(4), 677–700. https://doi.org/10.2307/30031881
- 25. Yeo, H. (2018). Role of Free Cash Flows in Making Investment and Dividend Decisions : The Case of

the Shipping Industry. *The Asian Journal of Shipping and Logistics*, 34(2), 113–118. Retrieved from http://dx.doi.org/10.1016/j.ajsl.2018.06.007

- 26. Zagorchev, A., & Gao, L. (2015). Corporate governance and performance of financial institutions. *Journal of Economics and Business*, 82, 17–41. https://doi.org/10.1016/j.jeconbus.2015.04.004
- 27. Zhang, D., Cao, H., Dickinson, D. G., & Kutan, A. M. (2016). Free cash flows and overinvestment: Further evidence from Chinese energy firms. *Energy Economics*, 58, 116–124. https://doi.org/10.1016/j.eneco.2016.06.018