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The Effect of Working Capital, Liquidity, and Leverage on Profitability: Empirical Study of Manufacturing Companies in Indonesia Stock Exchange 2012-2016

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Abstract: This study to determine the effect of working capital, liquidity and leverage on the profitability. The research sample consisted of 54 companies through purpose sampling. Research data is taken from published financial statements. Panel data process using the EViews 10 application. Panel data analysis was carried out root test and regression model selection through chow test, hausman test, and lagrange multiplier test. The results of the study show that working capital, liquidity and leverage have an influence on the profitability of manufacturing companies. Working capital has a significant positive effect on profitability, liquidity has no effect on profitability, and leverage has a significant negative effect on profitability.

Keywords: working capital, liquidity, leverage, profitability

1. Introduction

Indonesia has become part of the ASEAN Economic Community (AEC) in 2015. This requires Indonesia to improve the national economy, so that competitiveness increases, especially for countries in ASEAN. This is consistent with Wibowo's statement (2010) in Rahmah (2016), that the International Institute for Management Development (IMD) noted that Indonesia's competitiveness was still low. Indonesia's economic growth is seen from the Gross Domestic Product (GDP) based on data from the BPS in 2012 of 6.03%, which decreased by 1.09% in 2016 to 4.94%. One sector that contributes greatly to PBD is the manufacturing industry, which is 20.5% (Kurniawan, 2017). The GDP value of the manufacturing industry depends on the financial performance of the manufacturing company.

The company's financial performance shows the company's prospects, growth and sustainability. Good financial performance reflects the stability of the company and the company's ability to gain profits to improve the welfare of stakeholders. The company's ability to obtain profits is referred to as the company's profitability. Firm profitability shows a comparison between earnings and assets or capital that generates profits. Information about company profits can be seen in the company's financial statements. The financial statements themselves are a manifestation of the company's management responsibility for the resources that have been given to be managed. The financial statement information is used by management in making decisions that will be used in the future so as to achieve its objectives of obtaining profit and continuity of the company.

Factors affecting the profitability of a company consist of external and internal factors. External factors that indirectly affect profitability are inflation rates, interest rates, money exchange rates and taxation regulations (Aisyak 2008: 11 in Gunartin 2015). Internal factors that affect the company's profitability are company liquidity, asset management, debt

on operating results (Brigham and Houston 2006 in Rahmah 2016).

Previous research on working capital on profitability has been carried out by Tufail et. al. (2013), Akindele and Odusina (2015), Muhammad and Saad (2010), Alavinasab and Davoudi (2013), Nur et. al. (2016) the study shows Current Assets to Total Assets (CATAR) have a positive influence on Return of Assets (ROA). The opposite result is shown by Salman et. al. (2014), which states that CATAR has a significant negative effect on ROA. According to Nugroho's research (2011) the efficiency of working capital has no effect on profitability. Different results are shown by Prasetyo (2011), namely the efficiency of working capital affects profitability. Nur et. al. (2016), Arifin and Paimanta (2013), Sari (2010), Sarwat (2017), Durrah et. al. (2016) shows Current Ratio (CR) has a positive effect on profitability. Different results are shown by Akindele and Odusina (2015) that CR has a negative effect on ROA.

Research Nugroho (2011), Putri and Erawati (2013), Irwan and Choiruddin (2015), Ambarwati et. al. (2015) shows that liquidity is not significant to ROA. But research by Durrah et al. (2016), Khidmat and Rehman (2014), Ehiedu (2014), Prasetyo (2011) shows that liquidity has a positive effect on ROA. Similar results are shown by Enekwe et. al. (2014), Enekwe (2015), Tufail et. al. (2013) that Debt of Equity Ratio (DER) has a negative effect on ROA, but Gupta and Gupta (2014) research, Sari (2010) shows the opposite, that DER has a positive effect on ROA. According to Nugroho (2011) solvency has no effect on profitability. There is still inconsistency with the results of the research and the lack of working capital research in Indonesia makes the authors interested in re-examining to get results specifically for textile companies.

Based on the background described above, the author intends to conduct research with the title "The Effect of Efficiency of Working Capital, Liquidity, and Leverage on

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Profitability: Empirical Study of Manufacturing Companies in the Indonesia Stock Exchange in 2012-2016".

2. Theoretical Basis

Packing OrderTheory

The pecking theory is popularized by myers and majluf (1984) where they argue that equity is a less preferred means to raise capital because when manager (who are assumed to know better about condition of the firm that investors) issue new equity, investors believe that managers think that the firm is over-valueted and manager are taking adventage of this over-valuation. As a result, investors will place a lower value to the new equity issuance.

The packing order theory only explains funding preferences. The financial manager here is assumed not to take into account the optimal level of debt. The need for pure funds is only determined by investment needs. The pecking order theory can explain why companies that have high profit levels actually have a smaller level of debt because such companies have a lot of internal cash flow surpluses that can be used as a source of funding later. Packing order theory prioritizes funding from internal parties and will issue debt if necessary (Ross et al, 2016: 110-111).

Trade off Theory

The term trade off theory describes a family of related theories. In all these theories, a decision maker a firm evaluates the variouse cost and benefits of alternative leverage plans. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balance (Frank & Goyal, 2007).

The trade-off theory states that companies exchange tax benefits from debt financing with problems caused by the potential for bankruptcy. The essence of trade-off theory in the capital structure is to balance the benefits and sacrifices that arise as a result of the use of debt. As far as benefits are greater, additional debt is still allowed. If the sacrifice due to the use of debt is greater, then additional debt is not allowed. Conclusion The trade-off theory is the use of debt will increase the value of the company but only at a certain point.

Working capital

According to Ambarwati et. al. (2015), working capital is the excess of current assets against short-term debt. According to Irwadi and Choiruddin (2015) working capital can be expressed in quantitative concepts, qualitative concepts and functional concepts. The quantitative concept is working capital based on the quantity of funds, namely the total of the current assets. The qualitative concept is working capital that is linked to current debt, namely the excess of current assets used to finance current debt without disrupting liquidity. The functional concept is working capital that is based on the function of funds in obtaining income, namely the funds used in one accounting period that directly generate income in that period (current income) or indirectly generate current income. According to Irwadi and Choiruddin (2015) working capital is property owned by a company that is used to run a company without sacrificing other assets with the aim of obtaining optimal profit.

Liquidity

According to Ambarwati et. al. (2015), Liquidity is the company's ability to meet short-term financial obligations in the form of short-term debt (short time debt). Irwadi and Choiruddin (2015), stated that liquidity is a description of a company's ability to meet its short-term obligations in a smooth and timely manner. Company liquidity can be assessed using several ratios, namely (Irwadi and Choiruddin, 2015), namely Current Ratio and Quick Ratio.

Leverage

Leverage is the company's ability to meet its financial obligations if the company is liquidated, both short and long-term liabilities (Sari 2010). According to Nadeem et. al. (2015), leverage does not only affect organizational performance but also affects the organization's market value as well. Debt financing management is crucial in organizations because companies use creditor funds that must be returned with interest. Leverage ratio is the ratio used to measure the level of financing a company with debt relative to equity and its ability to cover interest and other fixed costs.

The extent to which a company uses debt financing, or financial influence, has three important implications: (1) By raising funds through debt, shareholders can maintain corporate control without increasing their investment. (2) If the company obtains more investment funded by loan funds rather than paying interest, then the shareholders' profits will increase, or "leverage", but the risk is also enlarged. (3) Creditors look to equity, or funds supplied by the owner, to provide a margin of safety, so that the higher the proportion of funds supplied by shareholders, the less risk faced by creditors.

Profitability

According to Ambarwati et. al. (2015), Profitability is the ability to generate profits for a certain period by using productive assets or capital, both capital as a whole and own capital. Profitability according to Sartono (2001) in Ambarwati et. al. (2015) is the ability of companies to obtain profits related to sales, production assets and own capital. Profitability describes the ability of a company to make a profit through all existing capabilities and resources such as sales activities, cash, capital, number of employees, number of branches, and so on (Irwadi and Choiruddin, 2015), while according to Suntoyo (2013: 113) in Irwadi and Choiruddin (2015) profitability is defined as the company's ability to benefit from its business.

In general, there are three measures that are often used to measure corporate profitability, namely net profit margin (NPM), return on assets (ROA), and return on equity (ROE) (Carey 1974 in Youn and Gu 2010). Schmidgall (2007) in Youn and GU (2010), argues that unlike other profitability ratios, ROA compares profits with total assets, thus measuring returns on total investment. According to Rothschild (2006), ROA includes both net income and company assets into the calculation and because it becomes the main matrix in evaluating management performance. The main advantage of using ROA as a performance measure is that it allows users to analyze the profitability and efficiency of the company simultaneously. There are

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two ways to increase ROA: either to increase net income for certain assets or generate a certain amount of net income with fewer assets. So ROA is a performance ratio that reflects not only profitability but also efficiency (Youn and Gu 2010).

Hypothesis

The research hypothesis is

Effect of Working Capital on Profitability

H₀: Working capital does not affect profitability

H₁: Working capital has a positive effect on profitability

Effect of Liquidity on Profitability

 H_0 : Liquidity (Current ratio) does not affect profitability H_1 : Liquidity (Current ratio) has a negative effect on profitability

Effect of Leverage on Profitability

 H_0 : Leverage (Debt to Equity Ratio) does not affect profitability

 H_1 : Leverage (Debt to Equity Ratio) has a negative effect on profitability.

3. Methodology

The type of research used in this thesis is causative research. According to Sari and Budiasih (2014), causative research is research designed to measure the relationship between research variables, or analyze the influence of a variable on other variables. In this study the data used is panel data and analyzed using EViews 10.

Definition of Variable Operations and Variable Measurement

The independent and dependent variables used in this study are:

Working Capital (X₁)

Working capital is the excess of current assets against short-term debt. Current Assets to Total Assets Ratio (CATAR) reflects the proportion of company investment in current assets compared to total assets. Working capital formula (Tufail et. Al. 2013):

Current Assets to Total Assets Ratio = Current Assets / Total Assets

Liquidity (X₂)

Liquidity is the company's ability to meet short-term financial liabilities in the form of short-term debt (short time debt). Liquidity formula (Khidmat and Rehman 2014):

Current ratio = (Current Assets / Current Liability) x 100 %

Leverage (X₃)

Leverage is the company's ability to fulfill its financial obligations if the company is liquidated, both short and long term liabilities Leverage formula (Tufail et. Al. 2013):

DER = Total Debt / Equity

Profitability

Profitability is the ability to generate profits for a certain period by using productive assets or capital, both capital as a whole and own capital. Profitability formula (Khidmat and Rehman 2014):

ROA = (Net Profit / Total Assets) x 100 %

Population and Research Sample

In this study the population used is manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2012-2016. The data collection technique used as a sample is purposive sampling, which is the technique of determining the sample with certain considerations (Sugiono, 2014). The sample of this study consisted of 54 companies for 5 years, so the total sample studied was 270 companies.

4. Analysis Method

Descriptive statistics

Descriptive statistics are statistics used to analyze data by describing or describing data that has been collected as it is without intending to make conclusions that apply to the public (Sugiono, 2014). This descriptive statistic was carried out to describe the overall sample taken in this study.

Root Unit Test

Root testing needs to be done before testing the estimated models used. The root test is a formal test for stationary groups of panel data. Stationary regression test of panel data needs to be considered the significance of the probability values of LLC (Levin, Lin & Chu) and one of the ADF (Augmented Dickey Fuller) probability values or PP probability values (Philips-Peron).

Panel Data Regression Model Selection

According to Widarjono (2007: 258), there are three tests to choose panel data estimation techniques. First, the chow test is used to choose between common effect or fixed effect models. Second, thirst test is used to choose between the best fixed effect model or random effect in estimating panel data regression. The three lagrange multiplier tests are used to ascertain which models will be used, the basis for this test is if the results of fixed and random tests are inconsistent.

Classic Assumption Test

Testing classical assumptions depends on the estimates used (Ekananda, 2016). If in the model testing, a common effect model or fixed effect model is chosen, it is necessary to test the classical assumption, otherwise if the model is chosen random effect model, it is not necessary to test the classic assumption. The classic assumption test used is multicollinearity test and heteroscedasticity test.

Hypothesis Testing

Determination Coefficient

The coefficient of determination is a variation of the effect of independent variables on the dependent variable, or it can also be said as a proportion of the effect of all dependent variables.

Simultaneous Testing

F statistic test is used to show whether all independent variables entered into the model have a joint influence on the dependent variable (Ghozali, 2012: 44).

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Partial Testing

Statistical tests basically show how far the influence of an explanatory / independent variable individually in explaining the variation of the dependent variable (Ghozali, 2012: 44).

5. Results and Discussion

Descriptive Statistical Analysis

Working capital represented by Current Assets to Total Asets Ratio (CATAR), the CATAR value during the observation period has the lowest value of 0.18 and the highest value of 0.91. The average value for company samples during the observation period is 0.58.

The highest CR value in the study period was 1516.46% and the lowest value was 40.31%. The average value of the company's CR during the study period was 272.19%. Leverage whose measurement is represented by Debt to Equity Ratio (DER), the highest DER value during the study period is 7.40. The lowest DER value is 0.08 and the average DER value for manufacturing companies during the sebesnar research period is 0.88. The highest ROA value is 65.72%, while the lowest value is 0.08%. The average value of profits generated by manufacturing companies during the study period was 1.02%.

Table 1: Descriptive Analysis of Research Variables

| Table 1. Descriptive Analysis of Research Variables | | | | | |
|---|-----------|----------|----------|----------|--|
| | CATAR | CR | DER | ROA | |
| Mean | 0.580523 | 272.1930 | 0.884422 | 11.02079 | |
| Median | 0.589172 | 201.9008 | 0.612874 | 8.296575 | |
| Maximum | 0.910740 | 1516.460 | 7.396443 | 65.72007 | |
| Minimum | 0.182430 | 40.31405 | 0.079293 | 0.075719 | |
| Std. Dev. | 0.167187 | 227.0851 | 0.905995 | 10.00095 | |
| Skewness | -0.223116 | 2.645396 | 3.244289 | 1.807662 | |
| Kurtosis | 2.268579 | 11.86830 | 17.99369 | 7.122126 | |
| | | | | | |
| Jarque-Bera | 8.258619 | 1199.692 | 238.7940 | 338.2030 | |
| Probability | 0.016094 | 0.000000 | 0.000000 | 0.000000 | |
| | | | | | |
| Sum | 159.7412 | 73492.12 | 238.7940 | 2975.613 | |
| Sum Sq. | | | | | |
| Dev. | 7.518930 | 13871702 | 220.8026 | 26905.09 | |
| | | | | | |
| Observations | 270 | 270 | 270 | 270 | |

Source: Output Results Eviews 10

Root Unit Test

The unit root test is used to determine the panel data that is used in stationary state to avoid autocorrelation. Signify the root test value by looking at the probability of the LLC value and one of the probability values for ADF or PP. Data can be said to be stationary if the unit root test probability value has a value smaller than the alpha value of 5%. Table 4.2 shows that all variables used are stationary.

Table 2: Root Unit Test Results

| Variabel | LLC | ADF | PP | Keterangan |
|----------|--------|--------|--------|------------|
| CATAR | 0.0000 | 0.0002 | 0.0000 | Stasioner |
| CR | 0.0000 | 0.0000 | 0.0000 | Stasioner |
| DER | 0.0000 | 0,0189 | 0,0001 | Stasioner |
| ROA | 0.0000 | 0.0002 | 0.0000 | Stasioner |

Source: Processed alone (2018)

Selection of Regression Models

Chow Test

In Table 3, you can see the Prob value. Cross-section Chi-square of 0.00 <0.05. Prob value. Chi-square cross-section is smaller than 0.05, then H0 is rejected and the regression model that is right to use in this study is the fixed effect model.

Table 3: Chow Test Results

| Redundant Fixed Effects Tests | | | | |
|----------------------------------|------------|----------|--------|--|
| Equation: Untitled | | | | |
| Test cross-section fixed effects | | | | |
| Effects Test | Statistic | d.f. | Prob. | |
| Cross-section F | 23.831969 | (53,213) | 0.0000 | |
| Cross-section Chi-square | 522.682946 | 53 | 0.0000 | |

Source: Eviws 10 Output Results

Hausman Test

The results of the Hausman test indicate the Prob value. The random cross-section in this study was 0.6513. This value is greater than 0.05, so H0 is accepted and the regression model that is right to use in this study is a random effect model.

Table 4: Results of the Hausman test

| Correlated Random Effects - Hausman Test | | | | |
|--|-------------------|--------------|--------|--|
| Equation: Untitled | | | | |
| Test cross-section random effects | | | | |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. | |
| Cross-section random | 1.635586 | 3 | 0.6513 | |

Source: Output Results Eviews 10.

Lagrange Multiplier test

The test results of lagrange multiplier in Table 4.5 can be seen from the Prob value. Breusch-Pagan (BP-value) obtained is 0.0000. This value is smaller than 0.05 so Ho is rejected and the right regression model to be used is a random effect model.

Table 5: Lagrange Multiplier Test Results

| Lagrange Multiplier Tests for Random Effects | | | | | |
|---|---------------------------|----------|----------|--|--|
| Null hypotheses: No effects | | | | | |
| Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided | | | | | |
| | (all others) alternatives | | | | |
| | Test Hypothesis | | | | |
| | Cross-section | Time | Both | | |
| Breusch-Pagan | 363.7693 | 0.129467 | 363.8988 | | |
| | (0.0000) | (0.7190) | (0.0000) | | |

Source: Output Results Eviews 10

Panel Data Regression Analysis

The results of the selection of the regression model show that the random effect model is the most appropriate model used in this study. The results of panel data regression analysis with a random effect model can be seen in Table 4.7.

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Table 7: Results of Random Effect Model Data Panel Regression Analysis

| Regression Analysis | | | | | |
|-----------------------|---|-------------------------------|-------------|----------|--|
| De | Dependent Variable: ROA | | | | |
| Method: Panel | Method: Panel EGLS (Cross-section random effects) | | | | |
| Da | te: 08/19/18 | 3 Time: 09 | :16 | | |
| | Sample: 2 | 012 2016 | | | |
| | Periods in | | | | |
| Cro | oss-sections | included: | 54 | | |
| Total pan | el (balance | d) observat | tions: 270 | | |
| Swamy and Arc | | | | nces | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. | |
| С | 3.205537 | 2.710400 | 1.182680 | 0.2380 | |
| CATAR | 18.05375 | 4.283073 | 4.215140 | 0.0000 | |
| CR | -0.003133 | 0.002799 | -1.119178 | 0.2641 | |
| DER | -2.049478 | 0.615548 | -3.329516 | 0.0010 | |
| Effects Specification | | | | | |
| S.D. Rho | | | | | |
| Cross-sect | ion random | 1 | 9.154677 | 0.8383 | |
| Idiosyncra | ļ | 4.168170 | 0.1717 | | |
| | Weighted Statistics | | | | |
| R-squared | 0.091157 | Mean dependent var 2.1989 | | 2.198916 | |
| Adjusted R-squared | 0.080907 | S.D. dependent var 4.3365 | | 4.336596 | |
| S.E. of regression | 4.157466 | Sum squared resid 4597.6 | | | |
| F-statistic | 8.893285 | Durbin-Watson stat 1.507 | | 1.507969 | |
| Prob(F-statistic) | 0.000012 | 2 | | | |
| Unweighted Statistics | | | | | |
| R-squared | 0.030491 | Mean dependent var 11.02079 | | | |
| Sum squared resid | 26084.74 | 4 Durbin-Watson stat 0.265794 | | | |

Source: Output Results Eviews 10

The results of panel data analysis in Table 7 can form panel data regression equations as below:

 $Y=3.205537+18.05375X_1-0.003133X_2-2.049478X_3$

Description: Y: Profitability (ROA) X1: Working Capital (CATAR)

X2: Liquidity (CR) X3: Leverage (DER)

The interpretation of the regression equation above is as follows:

1) Constants

The profitability value is 3.205537, if the variables of working capital, liquidity and leverage do not affect profitability.

2) Working capital for profitability

Working capital coefficient value is 18.05375, meaning that if working capital has increased by one unit, profitability will increase by 18.05375 assuming the value of other variables remains.

3) Liquidity against profitability

The coefficient of liquidity is -0.003133, meaning that if liquidity has decreased by one unit, profitability will increase by 0.003133 assuming the value of other variables remains.

4) Leverage on profitability

The coefficient of leverage is -2.049478, meaning that if leverage has decreased by one unit then profitability will increase by 2,049478 assuming the value of other variables remains.

Classic Assumption Test

The results of the selection of panel data regression model selection obtained the best model used is a random effect model so that the classical assumption test is not necessary.

Hypothesis Testing

Determination Test

The coefficient of determination in this study is used to determine the amount of contribution given by the independent variable to the dependent variable. The results obtained by the R-square value of 0.091157 shows that the independent variables (working capital, liquidity, and leverage) simultaneously provide influence on profitability of 9.11% while the rest is influenced by other variables outside the research.

F Test

Regression analysis results in table 4.6 can be seen the significant value of Prob (F-statistics) obtained at 0.000012. This value is smaller than 0.05, H0 is rejected and it can be concluded that the independent variables (working capital, liquidity and leverage) simultaneously affect profitability.

T test

P-value value of the working capital variable is 0.0000 with a positive coefficient, the value is smaller than 0.05 then H0 is rejected and H1 is accepted so that it can be concluded that working capital (CATAR) has a significant positive influence on profitability. The value of the P-value of the variable liquidity is 0.2641 with a negative coefficient, the value is greater than 0.05 then H0 is accepted so it can be concluded that liquidity (CR) has no effect on profitability. The P-value value of the leverage variable is 0.0010 with a negative coefficient, the value is smaller than 0.05 then H0 is rejected and H1 is accepted so it can be concluded that leverage (DER) has a significant negative effect on profitability.

6. Discussion

Effect of working capital (CATAR) on profitability

Working capital is the funds contained in current assets can be in the form of cash, accounts receivable, securities, inventory and others. The ratio used to measure working capital in this study is CATAR. Panel data regression results in this study indicate that working capital has a significant positive influence on profitability. The high value of working capital shows that investment policies in working capital are conservative. So based on the results of this study conservative policies are more likely to obtain greater profits. In a conservative policy the proportion of long-term debt is greater than short-term debt. In this condition, managers avoid the inability of companies to fulfill shortterm obligations. The company also avoided bankruptcy due to the lack of availability of current assets that could be used finance the company's operational needs. manufacturing companies the amount of current assets, namely cash, inventories and receivables, can optimize sales value so that it can increase the company's profits (Nur et. al. 2016).

This research is contradictory to the theory that aggressive working capital investment policies are able to obtain greater

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profits compared to conservative policies. But in this study in accordance with the results of research conducted by Tufail et. al. (2013), Akindele and Odusina (2015), Muhammad and Saad (2010), Alaviasab and Davoudi (2013), Nur et. al. (2016).

Influence of liquidity (CR) on profitability

Liquidity is the company's ability to meet short-term financial obligations in the form of short-term debt. The ratio used to measure liquidity is CR. Based on the results of the panel data regression, it can be seen that liquidity does not affect profitability. The large value of liquidity accompanied by the lack of effectiveness of managers in their utilization cannot increase the profitability of the company due to the large amount of idle funds. According to Ambarwati et. al. (2015) there is empirical evidence that shows that companies that have a small CR are able to produce better profitability compared to companies that have a greater CR value. This shows the inability of managers to manage liquidity so that the size of the liquidity does not affect the company's profit.

Effect of leverage (DER) on profitability

Leverage describes funds obtained from other than shareholders. The ratio used to measure leverage is DER. Panel data regression results show that leverage has a significant negative effect on company profitability. This result is in accordance with the packing order theory which states that companies that have high profitability values tend to have little leverage value. Companies that have high profitability in their investment funding prefer to use retained earnings compared to external funding. The choice of funding made by managers based on the level of risk is the first choice using retained earnings, then external funding in the form of debt, securities and issuing new shares.

Delay in dividend distribution because the use of retained earnings for investment funding provides a good signal to shareholders. This is because the manager gives a sign to provide more profits from the investment return in the future to shareholders.

7. Conclusion

The results of this study can be concluded that working capital (CATAR) has a significant positive effect on profitability. Liquidity (CR) has no effect on profitability and leverage (DER) has a negative influence on profitability. Working capital, liquidity and leverage together have a significant influence on the profitability of manufacturing companies on the IDX.

8. Research Limitations

This research has been carried out and compiled scientifically but there are still limitations in this study, namely:

- 1) The company used as a population only covers manufacturing companies, while companies listed on the IDX consist of many types of companies.
- 2) The year of observation is only 5 years, from 2012-2016.

 The independent variables used in this study are working capital, liquidity, and leverage. These variables have little effect on profitability.

9. Suggestion

In the next study, it is expected that there will be additional variables such as company size, Government Corporate Good (GCG), tax avoidance, and earnings management.

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