The Effect Of Working Capital Efficiency And Liquidity On Profitability Period 2015-2020

Case Study at Food and Beverage Industry Listed in Indonesian Stock Exchange Period 2015-2020

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Submitted:
NOVEMBER 2024

Accepted:
DECEMBER 2024

ABSTRACT

This study aims to determine the effect of working capital efficiency and liquidity on profitability. The variables used in this research are working capital efficiency and liquidity of independent variable and profitability as dependent variable. Working capital efficiency is measured by working capital (X1), liquidity is measured by the current ratio (X2), and profitability measured by return on assets (Y). The object of this research is conducted in the food and beverage industry in Indonesia Stock Exchange period 2015-2020, as many as 8 companies. The samples used are 48 companies. The regression model using panel data regression and regression model used is the Common Effect Model. In statistical test study states that the working capital turnover (X1) is not significant to the return on assets (Y) and the current ratio (X2) has a significant positive effect partially on return on asset (Y).

Keywords: *Working Capital Turnover, Current Ratio, Return on Asset*

INTRODUCTION

Food and beverage industry in Indonesia has role important in growth economy in Indonesia. Indonesia, a country with resident more from 250 million people is an interesting market For manufacturer food and drink , especially because of this country experience growth sustainable economy and therefore amount resident class intermediate increase fast and consuming the more Lots products (*Indonesia Investments ,* 2015). According to the General Chairperson of GAPMMI for the 2015-2020 period , Lukman said that growth and value investment in the sector food always increase in a number of period time last (GAPMMI, 2016).Food and beverage industry also has it role important in development sector industry . Its contribution to Product Gross Domestic Product (GDP) of non- oil and gas industry is the biggest compared to subsector others which reached 33.6 percent in the third quarter of 2016. Growth of 9.82 percent , sector industry food and Drink support part big growth non -oil and gas industry with growth reached 4.71 percent (Julianto , 2016).

Based on table 1.3, the average profitability of the company manufacturing especially in the sector company industry goods consumption food and beverages listed on the Indonesia Stock Exchange (IDX) in 2015-2020 tended to increase. In 2014 it had the smallest average value of 0.095 while in 2016 it had an average value of 0.144.

Still high growth industry food and Drink This supported height level consumption Indonesian society . Increasing consumption industry food and Drink supported by its stability growth request domestic in line with increasing population and number population (Liputan6.com , 2016). Reason for choosing company manufacturing is because in the company manufacturing have potential in develop the product in a way fast that is with do various innovation and tend to have further market expansion wide compared to non- manufacturing companies or company service.

JIMKES

Jurnal Ilmiah Manajemen Kesatuan
Vol. 13 No. 1, 2025
pp. 39 - 56
IBI Kesatuan
ISSN 2337 – 7860
E-ISSN 2721 – 169X
DOI: 10.37641/jimkes.v3i1.2976

Formulation Problem Study

Based on description of the background back , then formulation problem is as following :

1. Whether there is influence working capital efficiency to profitability in the company manufacturing especially in the sector company industry goods consumption food and beverages listed on the Indonesia Stock Exchange (IDX) in 2015-2020 ?
2. Whether there is influence liquidity to profitability in the company manufacturing especially in the sector company industry goods consumption food and beverages listed on the Indonesia Stock Exchange (IDX) in 2015-2020 ?

Research purposes

Research purposes

Based on formulation the existing problem , then objective from study This is as following :

a. Know influence working capital efficiency to profitability in the company manufacturing especially in the sector company industry goods consumption food and beverage listed on the Indonesia Stock Exchange (IDX) in 2015-2020 .
b. Know influence liquidity to profitability in the company manufacturing especially in the sector company industry goods consumption food and beverage listed on the Indonesia Stock Exchange (IDX) in 2015-2020 .

LITERATURE REVIEW, FRAMEWORK OF THOUGHT, AND HYPOTHESIS

Literature review

Management Finance

Understanding Management Finance

The company must do all his activities with effective and efficient in order to produce profit the maximum of course it is also expected to be able to maximize prosperity of its investors . Definition management finance according to Riyanto (2013:4) " management finance can interpreted as all activity related companies with efforts get funded with low cost as well as business For use and allocate the funds in a way efficient ".

Whereas According to Sutrisno (2012:3) he explains understanding about management finance as following , " management finance can interpreted as all activity related companies with efforts get corporate funding with cost cheap as well as business For use and allocate the funds in a way efficient ".

Report Finance

Understanding Report Finance

Report finance According to Hery (2015:3) basically is results from the accounting process that can used as tool For communicating financial data or activity company to interested parties . Interested parties to position finance and development company shared into two, namely internal parties such as management company and employees , and the second is party external like holder shares , investors, creditors , government , and society . So that can concluded that report finance is tool connecting information company with interested parties , who indicate condition health finance company and performance company . While according to Kasmir (2016:7), the report finance is the report shows condition finance company at the time This or in a period certain .

In general report finance That consists of from balance sheet and calculation profit and loss as well as report change equity . Balance Sheet show or describe amount assets , liabilities and equity from a company on date certain . While calculation report profit make a loss show the results that have been achieved by the company as well as the load that occurs during period certain , and reports change equity show sources and uses or the reasons that cause change equity company (Munawir , 2012:5).

Working Capital

Definition of Working Capital

Capital is one of the element most important in improvement implementation activity company . Company capital decisions related with sources of funds, whether originating

from from internal and external external company . Capital as funds used For to finance procurement assets and operations company . Amount of funds disbursed For finance operation company the expected will return Again enter in company in term time short through results sale goods merchandise or results its production .

According to Kasmir (2016:250) he stated that , " working capital is investment made in assets fluent or assets term short , such as cash, bank letters valuables , receivables , inventory , and assets fluent other ".

Whereas according to Munawir (2012:116) states , " working capital means *net working capital* or excess assets fluent to debt smooth , while for working capital as amount assets fluent used working capital term gross *(gross working capital)* ". The formula for looking for working capital is as following Munawir (2012:115):

$$Net\ Working\ Capital = Current\ Assets - Current\ Liabilities$$

Efficiency Use of Working Capital

The more fast level turnover of each element of working capital , then working capital can it is said efficient . If the rotation is the more slow , then use of working capital in company not enough efficient , and working capital needs it is said efficient if period his attachment more short and average cash outlay each the day low .

According to Djarwanto (2010:140), for test efficiency use of working capital can use working capital turnover , namely , the ratio between sale with working capital . This is also in line with Single statement (2008:165) which states that " for test efficiency from working capital utilization , working capital turnover set based on the comparison contained between amount sale with amount of working capital ". The ratio working capital turnover *shows* amount sales that can obtained from every rupiah of working capital . According to Riyanto (2013) the formulation from working capital turnover is as following :

$$\text{Perputaran Modal Kerja} = \frac{\text{Penjualan}}{\text{Aktiva Lancar} - \text{Utang Lancar}}$$

Analysis Ratio Finance

Understanding Analysis Ratio Finance

Ratio finance is tool analysis the most frequent finances used . Ratio finance connect various estimates contained in the report finance so that condition finance and results operation a company can interpreted .

According to Hery (2015:163) " analysis ratio is analysis conducted with connect various estimates contained in the report finance in form ratio finance . Analysis ratio finance This can disclose important relationship between estimation report finance and can used For evaluate condition finance and performance company ."

Liquidity

Understanding Liquidity

According to Kasmir (2012:133) liquidity can be used company For measure ability company in fulfil his obligation is ratio current ratio (*current ratio*). fluent is ratio For measure ability company in pay obligation term short or immediate debt due date billed in a way overall . In other words, how much Lots assets smooth available For cover obligation term short that soon due date".

According to Munawir (2012:31), " liquidity show ability a company For fulfil obligation his immediate finances must fulfilled , or ability company For fulfil obligation finance at the moment billed ". The company said liquid if own ability For fulfil obligation term in short and if No capable called liquid . Ratio liquidity used For measure ability company in fulfil obligations term short that soon must fulfilled .

Profitability

Understanding Profitability

Profitability is a factors to consider in determine working capital company . This is because of owned company profitability tall tend using relatively low debt small , because profit high detention Already adequate For to finance part big funding . According to Kasmir (2016:196) " the ratio profitability is ratio For evaluate ability company in look for profit . Ratio This also provides size level effectiveness management a company . This is shown by the profits generated from sales and revenue investment . The point is is use ratio This show efficiency company ".

From the opinion above so can concluded that profitability a company is reflection company capital capability For get profit . Therefore , profitability is reflection efficiency a company in using working capital , then method use level profitability For size efficiency a company is good way .

Pengertian *Return On Asset* (ROA)

Return On Asset (ROA) is the ratio that shows results or *return* on amount assets used in company . ROA or ROI is also a size about effectiveness management in manage investment . Besides That results return investment show productivity from all company funds , including loan capital or own capital .

The more low or small ratio This the more not enough good , and vice versa . This means ratio This used For measure effectiveness from overall operation company . According to Kasmir (2016:201) states that , "return *on investment* (ROI) or *Return On Asset* (ROA) is the ratio that shows results or *return* on amount assets used in company ". *Return On Asset* (ROA) can counted with formula :

$$Return\ on\ Assets\ = \frac{Earning\ After\ Interest\ and\ Tax}{Total\ Assets}$$

Framework Conceptual and Hypothesis Development

The purpose of study This is For describe and analyze the influence of working capital and liquidity to profitability in the company manufacturing on the Indonesia Stock Exchange (IDX). Based on description study theory from a number of expert , then can depicted framework thinking as following :

Influence *Working Capital Turnover* to *Return On Asset*

Working Capital Turnover (WCT) is ratio that compares between sales and working capital in company . Ratio This useful For know efficiency from utilization of working capital used . According to Hanafi (2016:125) " working capital efficiency is a very important thing , so that continuity business A company can maintained ". The more big ratio working capital turnover so the more Good a company Where percentage of existing working capital capable produce amount sale certain , besides That the more big ratio This show its efficiency utilization of available working capital in increase profitability company . This means that WCT has an effect positive to profitability . This theory proven by research Ambarwati , et al (2015) said that WCT has an effect positive on ROA.

H 1 : There is influence Positive *Working Capital Turnover* to *Return On Asset* .

Influence *Current Ratio* to *Return On Asset*

Current Ratio (CR) is ratio For measure ability company in pay obligation term short or immediate debt due date billed in a way overall (Kasmir, 2016:134). The more big ratio This so the more big ability company For pay off obligation term in short . One of the element working capital policy originate from assets fluent in the form of cash, receivables and inventory . Managing working capital means manage assets smooth . Assets fluent usually associated with debt smooth . Therefore That in understand working capital definition also related to debt smoothly . With condition certain assets fluent capable produce profit or profitability for owner company . This means that CR has an effect positive on ROA.

H 2 : There is influence Positive *Current Ratio* to *Return On Asset*

RESEARCH METHODS

Time and Place Study

In implementation research , researcher do it in the company manufacturing especially in the sector company industry goods consumption food and beverages listed on the Indonesia Stock Exchange (IDX) in 2015-2020 . Research period done start from July 2024 to by September 2024.

Research Design

Methods used in study This is method quantitative with approach causality , namely analyze existence influence variable free *(independent variable)* against variable bound *(dependent variable)* . In the research This variable free (X) is working capital efficiency (X1) and liquidity (X2), for variable bound (Y) is profitability . Research causality useful For measure relationships between variable research or useful For analyze How One variable influence other variables (Sugiyono , 2012:56). Through method This researcher can determine design study simple . The research design is basically describe existence possible procedures can test hypothesis research in order to be able to reach conclusion about relationship and influence variable free with variable bound in study This .

The purpose in research that is of a nature causal that is test hypothesis a variable independent to variable dependent on which data is collected will be tested. Research causal need testing hypothesis with statistical tests parametric with analysis panel data regression .

Population and Research Sample

Stock Exchange (IDX) divides group industry company based on sectors it manages . Here is a list of companies sector industry goods consumption food and beverages listed on the Indonesia Stock Exchange (IDX) in 2015-2020 :

Consumer Goods Industry Company Food and Beverages on the Indonesia Stock Exchange (IDX) in 2015-2020

No.	Company Code	Company name
1	ADES	Akasha Wira International Tbk .
2	AQUA	Aqua Golden Mississippi Tbk .
3	DAVO	Davomas Abadi Tbk .
4	DLTA	Delta Jakarta Tbk .
5	ICBP	Indofood CBP Sukses Makmur Tbk .
6	INDF	Indofood Sukses Makmur Tbk .
7	MYOR	Mayora Indah Tbk .
8	MLBI	Multi Bintang Indonesia Tbk .
9	BREAD	Nippon Indosari Corpindo Tbk .
10	PSDN	Prasidha Various Business Tbk .
11	SKBM	Sekar Bumi Tbk .
12	SLKT	Sea of Stars Tbk .
13	STTP	Siantar Top Tbk .
14	AISA	Three Pillars of Prosperous Food Tbk .
15	ALTO	Tri Banyan Tirta Tbk .
16	ULTJ	Ultra Jaya Milk Tbk .
17	CHECK	Wilmar Light Indonesia Tbk .

Source : www.idx.co.id (Data processed)

Of the total population of the company manufacturing especially in the sector company industry goods consumption food and beverages on the Indonesia Stock Exchange (IDX) in 2015-2020 , then based on the criteria set obtained sample as following :

List of Company Names in Research Samples

No.	Company Code	Company name
1	DLTA	Delta Jakarta Tbk .
2	ICBP	Indofood CBP Sukses Makmur Tbk
3	INDF	Indofood Sukses Makmur Tbk .
4	MYOR	Mayora Indah Tbk .

5	BREAD	Nippon Indosari Corpindo Tbk .
6	SLKT	Sea of Stars Tbk .
7	ULTJ	Ultra Jaya Milk Tbk .
8	CHECK	Wilmar Light Indonesia Tbk .

Source : Processed data return

Data collection technique

Data used is report finance during 2015-2020 . Research This take data from report published financials company through the Indonesia Stock Exchange (BEI) which can accessed through www.idx.co.id

Analysis Method

Data analysis is activity after data from all over Respondent collected . Activities in data analysis is group data based on variables and types respondents , tabulating data based on variable from all over respondents , presenting data for each variables studied , conducting calculation For answer problem , and do calculation For test hypothesis that has been submitted (Sugiyono , 2012: 206).

In research This method analysis conducted is an analysis model panel data regression with help device soft *Eviews* version 8, and for know level significance of each coefficient regression between variable independent to variable dependent , then statistical test used as following : Research data This processed with use *Eviews* with do statistical data analysis descriptive , assumption test classical , and hypothesis testing . Analysis in study This done with use technique analysis multiple linear regression For process and discuss the data that has been obtained and then tested with hypothesis testing . Research This choose analysis regression multiple Because can conclude in a way direct about the influence of each variable free to use in a way partial and in a way together .

Panel Data Regression Model

***Common Effect* Model**

$$Y = \alpha + \beta 1_{it} + \beta 2_{it} + \varepsilon_{it}$$

Where:

Y	= ROA	α	= Constant
$\beta 1$	= WCT	$\beta 2$	= CR
i	= Company	t	= Year
ε	= *Error*		

2. *Fixed* Effect Model

yit = ai + bXit + gi ∑ Di + eit or in the form of a covariance model it can be written:
yit = ai + bXit + g2W2, + g3W3 + ….. + gN Wn1 + d2 Zi2 + d3 Zi3 + …..+ dT ZIT + ei t

Where :
Wit = 1 ; for the ith individual unit, i = 2, …., N;
Wit = 0 ; others;
Zit = 1 ; for time period t, t = 2, ….., T;
Zit = 0 ; others.

3. Random Effect Model (Random Effect)

$$Y = \alpha + \beta 1_{it} + \beta 2_{it} + \varpi_{it}$$

Where :

$$\varpi_{it} = \varepsilon_{it} + u_{it}$$

ϖ_{it} is *error term* combination consists of into two components : ε_{it}, namely the cross - *section error component* or specific -individual, and u_{it}, namely component *error* combination *time-series* and *cross- section. .*

Panel Data Regression Model Selection

1. Chow Test

$$F = \frac{(RRSS - URSS)/N - 1}{URSS/(NT - N - K)}$$

Where :

$RRSS$ = *Restricted Residual Sum Square* $URSS$ = *Unrestricted Residual Sum Square*
N = Number of *Cross Section* data T = Number of *Time Series* data
K = Amount variable explanation

Hypothesis :
H_0= Model using the *Common Effect approach*
H_1= Model using *Fixed Effect approach*
Tests performed with using the Chow Test or *Likelihood Ratio Test* with assumptions :
H_0 rejected if the ρ-value is greater small from α.
H_1 accepted if the ρ-value is greater big from α. The value of α used by 0.05 or 5%.

2. Hausman test

$$W = X2\,[k-1] = [b-\beta]\,[b-\beta]$$

Temporary That hypothesis used in testing This is :
H_0= W has distribution restricted chi *-square* with degrees freedom (k-1)
H_1= W has distribution *chi-square* which is not limited with degrees freedom (k-1)

3. *Lagrange Multiplier* Test

In *software Eviews* , the *Random Effect* method can only be used in conditions where the number of individual banks is greater than the number of coefficients including intercepts. In addition, according to several Econometric experts, it is said that if the panel data owned has a greater amount of time (*t) than the number of individuals (i*), then it is recommended to use the *Fixed Effect method* . Meanwhile, if the panel data owned has a smaller amount of time (*t) than the number of individuals (i*), then it is recommended to use the *Random Effect method* .

Panel Data Regression Model Testing

a. Coefficient of Determination (R^2)

If the value of the Determination Coefficient is equal to 0 ($R^2 = 0$) it means that the variation of Y cannot be explained by X at all . While if $R^2 = 1$, it means that the variation of Y as a whole can be explained by X. In other words, $R^2 = 1$, then all observations are right on the regression line. Thus, the good or bad of a regression equation is determined by its R which has a value between zero and one.

b. F Statistic Test

$$Fh = \frac{R^2/k}{(1-R^2)/(n-k-1)}$$

Where :
R = multiple correlation coefficient
k = number of independent variables
n = number of sample members
The decision making criteria used are as follows:
H_0 accepted or H_1rejected if the probability of the significance level $F_{hitung} > \alpha = 0.05$
H_0 rejected or H_1accepted if the probability of the significance level $F_{tabel} < \alpha = 0.05$

c. Statistical t Test (Partial Test)

However, if the probability of the *t value* or significance is > 0.05, then it can be said that there is no significant influence between each independent variable on the dependent variable.
t- Test Hypothesis :
H_0 = accepted if Sig > α
H_1 = accepted if Sig < α
The formula used in testing the hypothesis (*t- test*) of this study is:

$$t = \frac{b}{Sb}$$

Where :
t = t-test value
b = regression coefficient
Sb = standard error of the independent variable

The criteria in this test are as follows:
H_0accepted and H_1rejected, *value* > 0.05 or if the significance value is more than the α value of 0.05, it means that the independent variables individually have no effect on the dependent variable.
H_0rejected and H_1accepted, value < 0.05 or if the significance value is less than the α value of 0.05, it means that the independent variables individually have an effect on the dependent variable.

If H_0 accepted, then this shows that the independent variable does not have a significant relationship with the dependent variable and vice versa. If H_0 rejected, then this shows that the independent variable has a significant relationship with the dependent variable.

RESULTS AND DISCUSSION

Stationarity Test

In the research This eligibility the data using stationary data with unit roots which are one of the condition important in econometric models for time series data .

If the data used in the model there are some that are not stationary, then the data is under consideration return its validity and stability , because results regression originating from from non -stationary data will cause *spurious regression* . *Spurious regression* is regression that has a high R^2 , but No There is meaningful relationship from both of them.

Data is said stationary if ADF statistic value < value α is 5%. If the statistical ADF more big so need done *differencing* a maximum of two times so that the data is ready For processed .

Stationary Test on *Return On Assets* (ROA) Variable

For test is the panel data from variable *Return On Assets (* ROA) used stationary or no , then unit root test is performed . Unit *root test* is performed with use method *Augmented Dickey Fuller* (ADF).

Hypothesis :
H 0 : There is a unit root in the variable *Return On Assets* (ROA)
(data not available) stationary)
H 1 : There is no unit root in the variable *Return On Assets* (ROA)
(stationary data)
Criteria testing hypothesis that is , if probability < 0.05 then *H0 is* rejected . On the other hand , if probability > 0.05 then *H 0* accepted .

***Unit Root Test* of variables *Return On Assets* (Y)**

Null Hypothesis: Unit root (individual unit root process)
Series: ROA
Date: 07/17/17 Time: 22:29
Sample: 2011 2016
Exogenous variables: None
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 40
Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	16.9031	0.3919
ADF - Choi Z-stat	-0.35678	0.3606

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results ROA

Cross section	Prob.	Lag	Max Lag	Obs
DLTA	0.5418	0	0	5
ICBP	0.4665	0	0	5
INDF	0.2204	0	0	5
MYOR	0.5574	0	0	5
ROTI	0.0719	0	0	5
SKLT	0.9304	0	0	5
ULTIMATE	0.7494	0	0	5
CEKA	0.1371	0	0	5

From the results of the stationary test in table 4.2, it was obtained mark *ADF test* the probability 0.3919 > 5% means the *Return On Assets* (ROA) data No stationary or No can used . Therefore that , it is necessary done *1st difference* . Here Stationary Test Results For variable *Return On Assets* (ROA) statistics program *E-views* 8 after done *1st difference :*

Unit Root Test* variabel *Return On Assets* (Y) *1st difference

Null Hypothesis: Unit root (individual unit root process)
Series: D(ROA)
Date: 07/17/17 Time:
22:31
Sample: 2011 2016
Exogenous variables:
None
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 32
Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	51.0697	0.0000
ADF - Choi Z-stat	-4.43341	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(ROA)

Cross section	Prob.	Lag	Max Lag	Obs
DLTA	0.0637	0	0	4
ICBP	0.2919	0	0	4
INDF	0.0308	0	0	4
MYOR	0.0076	0	0	4
JEWELRY	0.1255	0	0	4
SKLT	0.5368	0	0	4
ULTJ	0.0047	0	0	4
CEKA	0.0060	0	0	4

From the results of the stationary test Table 4.3 is obtained mark *ADF test* Where mark the probability is 0.000 0 < 5% means *H 0* rejected or *Return on Assets* (ROA) data stationary and can used .

Stationary Test on *Working Capital Turnover* (WCT) Variable

For test is the panel data from variable *Working Capital Turnover* (WCT) used stationary or no , then unit root test is performed . Unit *root test* is performed with use method *Augmented Dickey Fuller* (ADF).

Hypothesis :

H 0 : There is a unit root in the variable *Working Capital Turnover* (WCT) (data not available) stationary)

H 1 : There is no unit root in the variable *Working Capital Turnover* (WCT) (stationary data)

Criteria testing hypothesis that is , if probability < 0.05 then H0 is rejected . Conversely , if probability > 0.05 then H0 is accepted .

***Unit Root Test* of variables *Working Capital Turnover* (X1)**

Null Hypothesis: Unit root (individual unit root process)
Series: WCT
Date: 07/17/17 Time: 22:37
Sample: 2011 2016
Exogenous variables: None
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 40
Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	26.4202	0.0484
ADF - Choi Z-stat	-0.87606	0.1905

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality

Intermediate ADF test results WCT

Cross section	Prob.	Lag	Max Lag	Obs
DLTA	0.7418	0	0	5
ICBP	0.7866	0	0	5
INDF	0.8332	0	0	5
MYOR	0.4629	0	0	5
ROTI	0.3220	0	0	5
SKLT	0.6233	0	0	5
ULTJ	0.0004	0	0	5
CEKA	0.0943	0	0	5

From the results of the stationary test in table 4.4 obtained mark *ADF test* probability of 0.0484 < 5% means *H 0* rejected or *Working Capital Turnover* data (WCT) the stationary and can used .

Stationary Test On *Current Ratio* (CR) Variable

For test is the panel data from variable *Current Ratio* (CR) used stationary or no , then unit root test is performed . Unit *root test* is performed with use method *Augmented Dickey Fuller* (ADF).

Hypothesis :

H 0 : There is a unit root in the variable *Current Ratio* (CR) (data not available) stationary)

H 1 : There is no unit root in the variable *Current Ratio* (CR) (stationary data)

Criteria testing hypothesis that is , if probability < 0.05 then *H 0* rejected . On the other hand , if probability > 0.05 then *H 0* accepted .

***Unit Root Test* of variables *Current Ratio* (X2)**

Null Hypothesis: Unit root (individual unit root process)
Series: CR
Date: 07/17/17 Time: 22:42
Sample: 2011 2016
Exogenous variables: None
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 40
Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	12.5463	0.7056
ADF - Choi Z-stat	1.42629	0.9231

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results CR

Cross section	Prob.	Lag	Max Lag	Obs
DLTA	0.7629	0	0	5
ICBP	0.1867	0	0	5
INDF	0.2510	0	0	5
MYOR	0.5986	0	0	5
ROTI	0.9802	0	0	5
SKLT	0.1289	0	0	5
ULTIMATE	0.9993	0	0	5
CEKA	0.6978	0	0	5

From the results of the stationary test in table 4.5 obtained mark *ADF test* the probability 0.7056 > 5% means *Current Ratio* data (CR) the No stationary or No can used . Therefore that , it is necessary done *1st difference* . Here Stationary Test Results For variable *Current Ratio* (CR) statistics program *E-views* 8 after done *1st difference*

Unit Root Test* variabel *Current Ratio* (X2) *1st difference

Null Hypothesis: Unit root (individual unit root process)
Series: D(CR)
Date: 07/17/17 Time: 22:43
Sample: 2011 2016
Exogenous variables: None
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 32
Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	39.7301	0.0009
ADF - Choi Z-stat	-2.96404	0.0015

** Probabilities for Fisher tests are computed using an asymptotic Chi

Intermediate ADF test results
D(CR)

section	Prob.	Lag	Max Lag	Obs
DLTA	0.1959	0	0	4
ICBP	0.2177	0	0	4
INDF	0.0234	0	0	4
MYOR	0.0078	0	0	4
JEWEL				
RY	0.8925	0	0	4
SKLT	0.0526	0	0	4
ULTJ	0.6420	0	0	4
CEKA	0.0100	0	0	4

From the results of the stationary test table 4. 6 obtained mark *ADF test* Where mark the probability is 0.00 09 < 5% meaning *H 0* rejected or *Current Ratio* data (CR) the stationary and can used .

Panel Data Regression Analysis

Panel data is Contribution from *time series* and *cross section* data . Panel data is collection of observed cross *section* data in a way simultaneous or simultaneously from time to time . In the panel data model estimation there is three options that can be done that is :

1. *Common Effect* Model

   This technique is the simplest technique for estimating panel data model parameters, namely by combining *cross-section* and *time series data* as one unit without considering differences in time and individual entities.

Common Effect

Dependent Variable: ROA
Method: Panel Least Squares
Date: 07/17/17 Time: 21:08
Sample: 2011 2016
Periods included: 6
Cross-sections included: 8
Total panel (balanced) observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.019860	0.020019	0.992027	0.3265
WCT	0.000529	0.000649	0.814612	0.4196
CR	0.035220	0.006000	5.870077	0.0000

R-squared	0.461197	Mean dependent var	0.112346
Adjusted R-squared	0.437250	S.D. dependent var	0.071961
S.E. of regression	0.053983	Akaike info criterion	-2.939833
Sum squared resid	0.131138	Schwarz criterion	-2.822883
Log likelihood	73.55599	Hannan-Quinn criter.	-2.895637
F-statistic	19.25923	Durbin-Watson stat	1.682069
Prob(F-statistic)	0.000001		

Dari hasil di atadiperoleh persamaan *common effects*:
ROA = 0,019860 + 0,000529 WCT + 0,035220 CR
T-Statistic = 0,992027 + 0,814612 WCT + 5,870077 CR

F-Statistic = 19,25923
Prob (F-statistic) = 0,000001

2. *Fixed Effect* Model

In the *fixed effect model* , it is generally done by providing *dummy variables* . The definition of *fixed effect* itself is based on the difference in intercept between individuals but the same between times (*time invariant*), while the regression coefficient (*slope*) is considered constant both between groups of individuals and between times.

Fixed *Effect*

Dependent Variable: ROA
Method: Panel Least Squares
Date: 07/17/17 Time: 21:08
Sample: 2011 2016
Periods included: 6
Cross-sections included: 8
Total panel (balanced) observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.124258	0.034404	3.611746	0.0009
WCT	-0.000246	0.000693	-0.354580	0.7249
CR	-0.003868	0.012455	-0.310553	0.7578

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.618520	Mean dependent var	0.112346
Adjusted R-squared	0.528170	S.D. dependent var	0.071961
S.E. of regression	0.049430	Akaike info criterion	-2.993458
Sum squared resid	0.092847	Schwarz criterion	-2.603625
Log likelihood	81.84299	Hannan-Quinn criter.	-2.846139
F-statistic	6.845784	Durbin-Watson stat	2.213838
Prob(F-statistic)	0.000009		

From the results above, the *fixed effect equation is obtained* :
ROA = 0.124258 – 0.000246 WCT – 0.003868 CR
T-Statistic = 3.611746 – 0.354580 WCT – 0.310553 CR
F-Statistic = 6.845784
Prob (F-statistic) = 0.000009

3. *Random Effect* Model

In *random effects,* parameters that differ between regions and between times are included in *the error* . It is also assumed that individual *errors* (Ui) are not correlated with each other, as is the combined *error* (eit).

Random Effect

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 07/17/17 Time: 21:00
Sample: 2011 2016
Periods included: 6
Cross-sections included: 8
Total panel (balanced) observations: 48
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.019860	0.018331	1.083399	0.2844
WCT	0.000529	0.000595	0.889643	0.3784
CR	0.035220	0.005494	6.410745	0.0000

Effects Specification		
	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.049430	1.0000

Weighted Statistics			
R-squared	0.461197	Mean dependent var	0.112346
Adjusted R-squared	0.437250	S.D. dependent var	0.071961
S.E. of regression	0.053983	Sum squared resid	0.131138
F-statistic	19.25923	Durbin-Watson stat	1.682069
Prob(F-statistic)	0.000001		

Unweighted Statistics			
R-squared	0.461197	Mean dependent var	0.112346
Sum squared resid	0.131138	Durbin-Watson stat	1.682069

Dari hasil di atas diperoleh persamaan *Random effect*:
ROA = 0,019860 + 0,000529 WCT + 0,035220CR
T-Statistic = 1,083399 + 0,889643WCT + 6,410745CR
F-Statistic = 19,25923
Prob (F-statistic) = 0,000001

Panel Data Regression Model Selection

There are several ways that can be used to determine which technique is most appropriate in estimating panel data parameters. To choose one of the models that is considered most appropriate from the three types of panel data models, a series of tests need to be carried out, namely:

Chow Test

This test is used to determine whether the panel data regression technique with the *Fixed Effect method* is better than the *dummy variable panel data model regression* or *the Common Effect method* .

Hypothesis:

H0 : Common effects model

H1 : Fixed effects *model*

The criteria for hypothesis testing are, if the probability < 0.05 then *H 0* is rejected. Conversely, if the probability > 0.05 then *H 0* accepted.

Chow Test

Redundant Fixed Effects Tests
Equation: FIXED
Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	2.238755	(7.38)	0.0522
Cross-section Chi-square	16.574013	7	0.0204

Cross-section fixed effects test equation:
Dependent Variable: ROA
Method: Panel Least Squares
Date: 07/17/17 Time: 23:03
Sample: 2011 2016
Periods included: 6
Cross-sections included: 8
Total panel (balanced) observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.019860	0.020019	0.992027	0.3265
WCT	0.000529	0.000649	0.814612	0.4196
CR	0.035220	0.006000	5.870077	0.0000

R-squared	0.461197	Mean dependent var	0.112346
Adjusted R-squared	0.437250	S.D. dependent var	0.071961
S.E. of regression	0.053983	Akaike info criterion	-2.939833
Sum squared resid	0.131138	Schwarz criterion	-2.822883
Log likelihood	73.55599	Hannan-Quinn criter.	-2.895637
F-statistic	19.25923	Durbin-Watson stat	1.682069
Prob(F-statistic)	0.000001		

From the table above, it can be seen that the hypothesis model has a *Cross-section probability value* that is greater than α (5%), namely 0.0522 > 0.05, so *H 0* is accepted, which means that this test produces a suitable *Common effects model* .

Hypothesis Discussion

1. The Effect of *Working Capital Turnover* on *Return on Assets*

   Based on results data analysis shows that in a way partial *Working Capital Turnover* there is no effect significant to *Return on Asset* . In table 4.7 page 76, in the t-statistic test *of the variable Working Capital Turnover* (WCT) has a smaller count than the *t* table (-1.533234 < 2.014103) with a probability value for *Working Capital Turnover* (WCT) is 0.1321 . The probability value is greater than the α value of 0.05 (0.1321 > 0.05), so this does not support the research that proven by Ambarwati , et al (2015) who said that WCT has an effect positive on ROA . However, this finding supports research conducted by Sutopo, et al (2015) which states that no There is influence positive and significant on the working capital itself . Thus, *H1* proposed in this study where *Working Capital Turnover* has a significant positive effect partially on *Return on Assets* cannot be accepted.

   The company uses working capital for its operational activities. The funds issued by the company are expected to be returned for further operational activities. These results prove that the higher the sales volume generated, the faster the working capital rotates so that the capital quickly returns to the company accompanied by high profits, the existence of high profits causes the company's *Return on Asset* to also increase.

   The working capital turnover itself starts from the time cash is invested in the working capital component until it returns to cash. Based on the results of the t-test,

it can be seen that the longer the working capital turnover, the slower the turnover, making it less efficient for the company, which means that in the end profitability will decrease.

2. The Effect of *Current Ratio* on *Return on Assets*

Based on results data analysis shows that in a way partial *Current ratio* there is no effect significant to *Return on Asset* . P in table 4.7 page 76, in the *t -statistic test* of the variable *Current Ratio* (CR) has a count greater than *the t* table (6.175252 > 2.014103) with a probability value for *the Current Ratio* (CR) is 0.0000. The probability value is greater than the α value of 0.05 (0.0000 > 0.05).

This study does not support the research of Sutopo, et al (2015) that there is no positive and significant influence on working capital and liquidity on profitability. However, it supports the research conducted by Wijaya (2012) which states that there is a significant influence on *the Current ratio* (CR) on profitability. Thus, *H2* proposed by this study where *the Current Ratio* has a significant partial effect on *Return on Assets* and can be accepted.

Companies that choose For increase profitability own high risk because cash will reduce cause the decline ability company in fulfil obligation in short with appropriate time . Based on results research , shows that low ratio liquidity ensure profit company . With there possibility current *assets* available in the form of small cash , or supply small and small receivables .

CONCLUSION AND SUGGESTIONS

Conclusion

This study aims to examine the effect of working capital efficiency and liquidity on profitability in manufacturing companies, especially in the food and beverage consumer goods industry sector listed on the Indonesia Stock Exchange (IDX). This study has a sample of 8 companies that were studied for 6 years, namely the period 2015-2020. So that the data collected in this study there are 48 sample data.

Based on research and analysis results, the following conclusions can be drawn:

1. The effect of working capital efficiency on profitability. The results of this study indicate that *Working Capital Turnover* has no significant effect on *return on assets* (Y).
2. The effect of liquidity on profitability. The results of the study show that *the Current Ratio* has a significant positive effect partially on *return on assets.*

Suggestion

This study aims to examine the effect of working capital efficiency and liquidity on profitability in manufacturing companies, especially in the food and beverage consumer goods industry sector listed on the Indonesia Stock Exchange (IDX). Therefore, the researcher provides the following suggestions:

1. For the Development of Science
   This research is expected to increase insight in the development of scientific knowledge in the field of financial management, especially in problems or factors related to working capital, liquidity, and profitability, as well as a source of information in additional references for readers.
2. For Companies
   Companies should improve their performance every year to be able to compete in gaining trust from investors. The better the company's working capital turnover, one of which can be reflected in the increasing profitability value, so companies need to increase their profitability value to gain trust from investors.
3. For Investors
   Investors are expected not to show the company's profit alone without knowing the ability of the profit to generate cash for the company, because it is only a picture of the company's performance in the short term. In addition, investors need to pay attention to the performance of the company's organizational governance devices in order to obtain better information as a tool in making further investment decisions. If

a company's profitability value is achieved, the company can also distribute large dividends and indirectly the stock price will increase and affect the company's value.

4. For Further Research
   For further research, the research period should be increased to provide more samples and more accurate results, and the research can be replaced with other criteria or added with other variables.

BIBLIOGRAPHY

[1] Agha, Hina., Mba, and Mphii . (2014). Impact of Working Capital Management on Profitability. *European Scientific Journal* January 2014 edition vol.10, No 1. ISSN: 1857 – 7881 (Print). E-ISSN 1857-7431.

[2] (2015) . The influence of working capital , liquidity , activity and size company to profitability in the company stock exchange listed manufacturing Indonesia . *Department Accounting Undergraduate Program* (Volume 3 No. 1 Year 2015).

[3] Darsono and Ashari. (2010) . *Guidelines Practical Understand Report Finance* . Jakarta:Andi Offset.

[4] Prof. Dr. (2010) . *Principals of Report Analysis Finance , Edition Second* . Yogyakarta:BPFE .

[5] GAPMMI. (2016) . *Adhi S. Lukman Chairman of the Association Businessman Selected Indonesian Food and Drinks Period 2015-2020.* http://www.gapmmi.or.id/ . (Accessed September 25 , 2016).

[6] Ghozali , Imam. (2009) . *Application Multivariate Analysis with SPSS Program.* Semarang:UNDIP .

[7] Gujarati, Damodar. (2006) . *Basics of Econometrics* . Jakarta: Erlangga .

[8] Hanafi, Mamduh M and Abdul Halim. (2016) . *Analysis Report Finance, 5th Edition.* Yogyakarta:UPP STIM YKPN.

[9] Harahap , Sofyan Syafri . (2013) . *Analysis Critical on Report Finance , 11th Edition* . Jakarta: Raja Grafindo The land .

[10] Harmono . (2009) . *Management Finance Balanced Scorecard Based (Business Theory, Case, and Research Approach).* Jakarta:Earth of Letters.

[11] Hery. (2015) . *Analysis Report Finance ; Integrated and comprehensive Edition.* Yogyakarta:CAPS .

[12] Hery. (2016) . *Analysis Report Finance ; Approach Ratio Finance* . Jakarta:Grasindo .

[13] Indonesia Investments . (2015) . *Prospects Food & Beverage Industry Growth Indonesia Revised Decrease* . http://www.indonesia-investments.com/id/berita/berita-hari-ini/prospek-perbangun-industri-makanan-minuman-indonesia-direvisi-menurun-di-2015/item5386?searchstring=makanan (Accessed October 28 , 2016).

[14] Julianto , Pramdia Arhando . (2016) . *Food and Beverage Industry Growing 9.8 Percent in Q3 2016.* http://ekonomi.kompas.com/read/2016/12/01/204357726/industri.makanan.dan.minuman.tumbuh.9.8.persen.di.kuartal.iii.2016 (Accessed July 8 , 2016).

[15] Cashmere. (2012) . *Analysis Report Finance* . Jakarta:PT . Raja Grafindo The land .

[16] Cashmere. (2016) . *Analysis Report Finance . 1st Edition , 9th Printing* . Jakarta: Eagle Press.

[17] Ministry of Industry of the Republic of Indonesia. (2016). Ministry *of Industry Performance Report 2015* . Jakarta:Saleh Husin.

[18] Keown, Arthur J., John D. Martin, J. William Petty, David F. Scott, JR. (2011) . *Management Finance : Principles & Applications* . Jakarta:PT . Index .

[19] Liputan6.com. (2016) . *Food and Beverage Industry Will Grow Sharply in 2017.* https://m.liputan6.com/amp/2662482/industri-makanan-dan-minuman-bakal-tumbuh-tajam-pada-2017 (Accessed November 28 , 2016).