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The Effect of Working Capital Turnover and Receivables Turnover on Return On Investment in PT Gudang Garam, Tbk. Between 2010 and 2020

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Abstract

This study aims to determine the Working Capital Turnover (Variable X1) and Accounts Receivable Turnover (Variable X2) on Return On Investment (Variable Y) in PT. Gudang Garam, Tbk. from 2010 to 2020. The research method used is descriptive quantitative using secondary data obtained from the Published Financial Report of PT. Gudang Garam, Tbk. from the Indonesia Stock Exchange (IDX) from 2010 to 2020. The method used is multiple regession with fullfiling classical assumption tests. The results show that Working Capital Turnover does not have a significant effect on Return On Investment partially but Receivable Turnover have significant effect on Return On Investment partially. Working Capital Turnover and Receivable Turnover have a significant effect on Return On Investment simultaneously.

Keywords: *Working Capital Turnover; Accounts Receivable Turnover; Return On Investment (ROI)*

JEL Classification: G30

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Introduction

Working capital is said to be better if the turnover is fast. The shorter the turnover period, the faster the working capital turnover rate, so that the required working capital is getting smaller. On the other hand, if the turnover period is slower, the amount of working capital needed will be greater. The higher the working capital, the profit earned by the company will also be greater because with large working capital it will generate large profits for the company.

Accounts Receivable Turnover Ratio is a ratio that measures the company's ability and efficiency in collecting its receivables, the higher this ratio the better and more profitable it will be. A higher ratio means that the company managed to collect receivables throughout the year

This study examines the significant affection of working capital turnover and receivable turnover on Return On Investment in PT Gudang Garam, Tbk. Below is the table for working capital turnover between 2010 and 2020.

Table 1 Net Sales, Working Capital, and Working Capital Turnover between 2010 and 2020

Years	Net Sales (In Million Rupiah)	Working Capital (In Million Rupiah)	Working Capital Turnover (Times)
2010	37.691.997	14.426.360	2,61
2011	41.884.352	16.847.435	2,49
2012	49.028.696	16.151.704	3,04
2013	55.436.954	14.509.881	3,82
2014	65.185.850	14.749.466	4,42
2015	70.365.573	18.523.345	3,80
2016	76.274.147	20.294.608	3,76
2017	83.305.925	21.153.448	3,94
2018	95.707.663	23.281.152	4,11
2019	110.523.819	26.822.406	4,12
2020	114.477.311	32.527.937	3,52

Source: Financial Report PT Gudang Garam, Tbk.

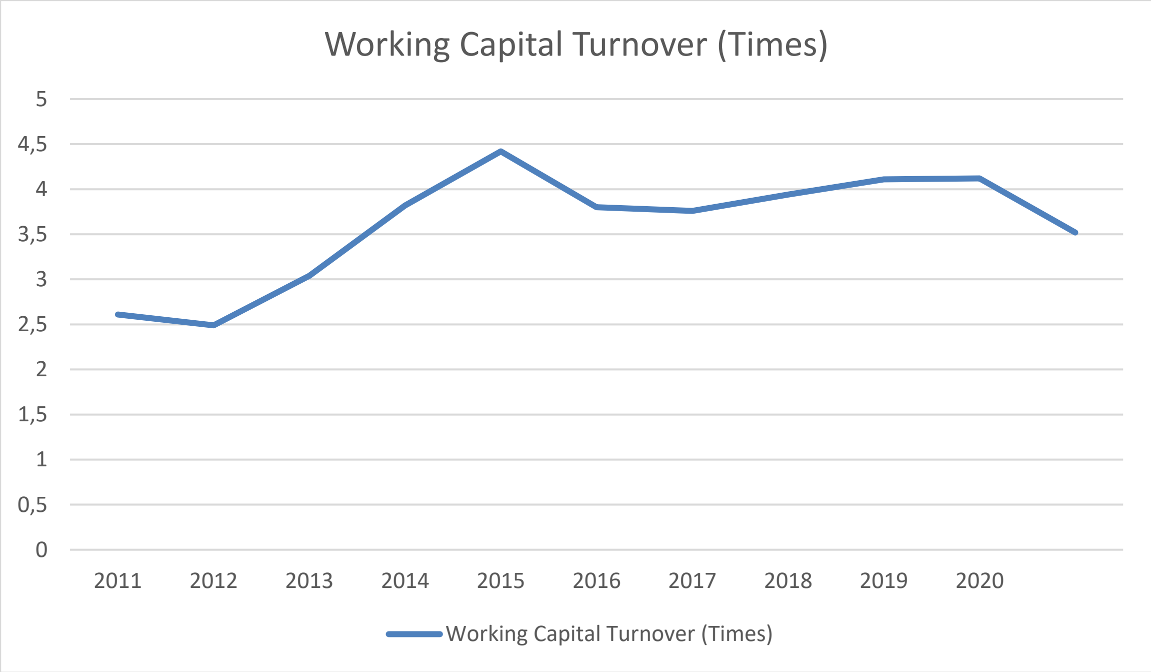

Figure 1 Working Capital Turnover between 2010 and 2020

Table 1 shows the working capital turnover between 2010 and 2020. Working capital turnover in PT Gudang Garam, Tbk. in 2020 is higher than 2011. Despite, in 2020 working capital turnover more decrease than 2014. The increasing of working capital turnover is supported by the increasing of net sales between 2010 and 2020.

Table 2 Net Sales, Average Receivable, and Receivable Turnover between 2010 and 2020

Years	Net Sales (In Million Rupiah)	Average Receivables (In Million Rupiah)	Receivable Turnovers (Times)
2010	37.691.997	976.981	38,58
2011	41.884.352	926.496	45,21
2012	49.028.696	1.160.263	42,26
2013	55.436.954	1.789.313	30,98
2014	65.185.850	1.864.181	34,97
2015	70.365.573	1.550.187	45,39
2016	76.274.147	1.829.024	41,70
2017	83.305.925	2.159.523	38,58
2018	95.707.663	1.977.515	48,40
2019	110.523.819	1.800.921	61,37
2020	114.477.311	2.216.018	51,66

Source: Financial Report

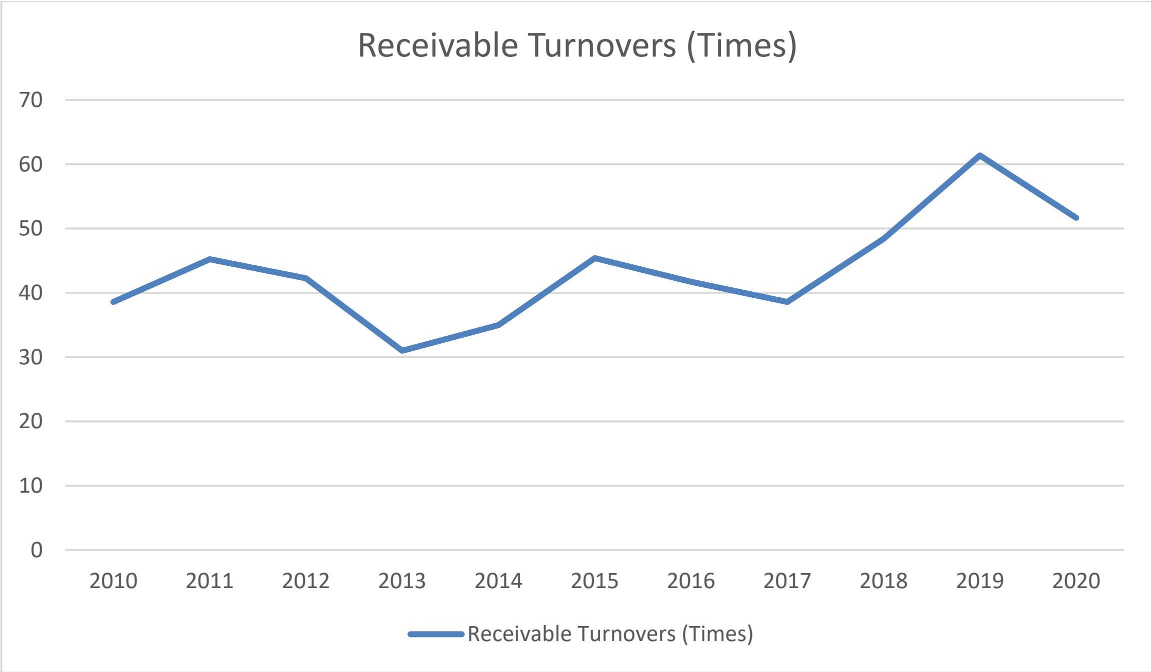

Figure 2 Receivable Turnovers between 2010 and 2020

Table 2 shows that Receivable Turnover's PT Gudang Garam, Tbk.have increased since 2010. It is supported by net sales that have been increasing since 2010. This fact can be hyphothesized that the PT Gudang Garam, Tbk. has earned profitability in 2020 more than 2010.

Table 3 Earning After Tax, Total Assets, and Return On Investment between 2010 and 2020

Years	Earning After Tax	Total Assets	ROI	Selisih Perbandingan
2010	4.214.789	30.741.679	13,71	1
2011	4.958.102	39.088.705	12,68	-7,51%
2012	4.068.711	41.509.325	9,80	-28,52%
2013	4.383.932	50.770.251	8,63	-37,05%
2014	5.325.317	58.234.278	9,14	-33,33%
2015	6.458.516	63.505.413	10,17	-25,82%
2016	6.672.682	62.951.634	10,60	-22,68%
2017	7.755.347	66.759.930	11,62	-15,24%
2018	7.968.008	69.097.219	11,53	-15,90%
2019	10.800.102	78.647.274	13,73	0,15%
2020	7.591.709	78.191.409	9,71	-29,18%

Source: Financial Report

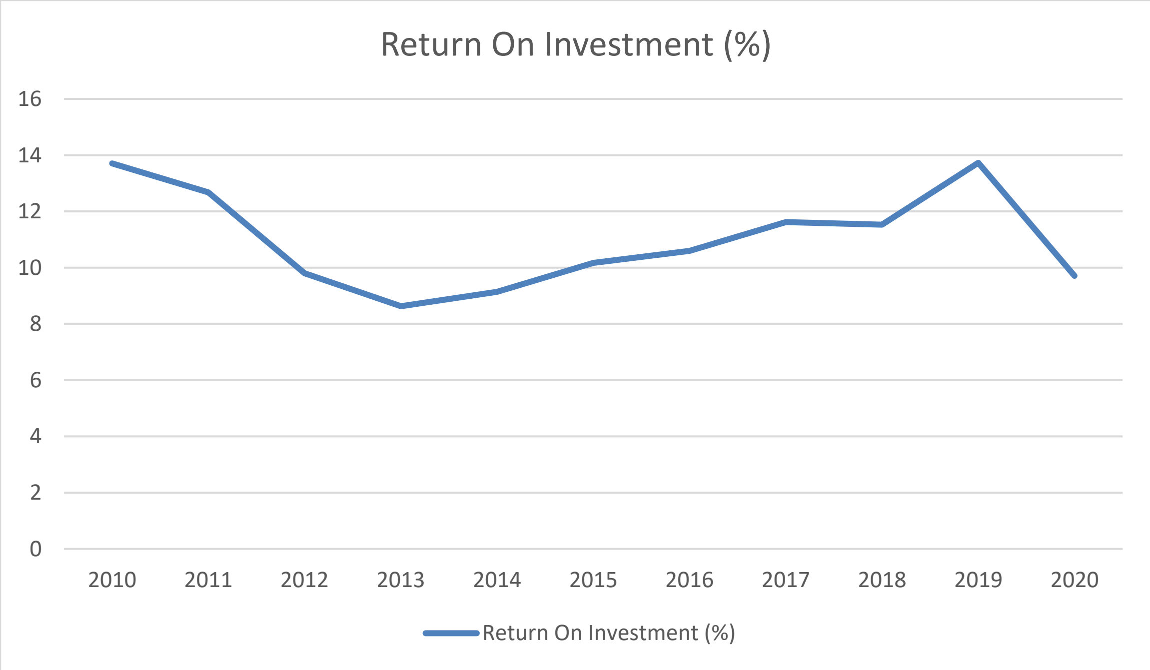

Figure 3 Return On Investment between 2010 and 2020

Table 3 shows that return non investment between 2010 and 2020 have been decreased. Those are contrary with the increase of net sales, The earning after tax and total assets are decreasing but the return on investment does not increase as equal as those.

Several previous sudies examine working capital turnover on profitability. Several studies have different result about the affection. Working capital turnover affected positively and significantly about 0.5% in mining industry (Halim et al., 2022), 8.5% in component and automotive industry (Simangunsong, 2021)(Ummah & Efendi, 2022). Working Capital Turnover does not affect ROA and the probabilty is 13% (Sinaga et al., 2022) but affecting ond ROA (Rahmi & Zulfitra, 2022).

Receivable Turnover on ROA is positive and significant about 0.03%(Suhartono, 2021); 0.4%(Yanto & Aprilia, 2021); 4.4% (Nurmawardi & Lubis, 2019). Contrast to three studies, receivable turnover does not affect significantly (Prastika, 2021)(Wulandari & Lubis, 2021).

The discussion above, we can conclude that working capital turnover and receivable turnover have different results. Furthermore, this research uses working capital turnover and receivable turnover on retur non investment.

Literature Review

The determination of profitability is important for sustainability firms. If the firms are not profitable the firms will not survival in their competition. It makes the firms will not continue their business anymore. They will earn profit as long as the revenues exceeds the expenses.

Every industry has been different to determine for profitability. It mostly focus most hypothesis. However, when the demand is constant, the individual firm differences became more important than structure industry to determine profitability (Hill & Deeds, 1996).

In financial management of company, activity ratios are measured to evaluate the finansial planning and the realizing.well. This ratios have purposed to assess the assets and thus, the optimalization can be evaluated from the ratios.

Activity ratios have several benefits. First, it helps business to compare among line of business. Second, it identifies issues and also evaluate the business activity needs. Third, It simplifies financial data analysis in simple format to make a decision. The last, investor can be handed information by activity ratios.

Working Capital Turnover has been insignificant on ROI(Simangunsong, 2021)(Ummah & Efendi, 2022) (Sinaga et al., 2022). However, It has insignificant (Halim et al., 2022) (Rahmi & Zulfitra, 2022). Receivable Turnover has been significant on ROI (Suhartono, 2021);(Yanto & Aprilia, 2021); (Nurmawardi & Lubis, 2019). However, others are not significant (Prastika, 2021)(Wulandari & Lubis, 2021)

Working Capital Turnover or Net Working Capital Turnover is one of the ratios used to measure or assess the effectiveness of the company's working capital during a certain period. This ratio is measured by comparing sales with total current assets minus current liabilities. The formula is

$$Working\ Capital\ Turnover = \frac{Sales}{Current\ Assets - Current\ Liabilities} \tag{1}$$

Receivable Turn Over is a ratio used to measure how long it takes to collect receivables during one period or the number of times the funds invested in these receivables turnover in one period. The formula is

$$Receivable\ Turnover = \frac{Sales}{Average\ Receivable} \tag{2}$$

Return On Investment (ROI) is a ratio that shows the results (return) on the number of assets used in the company. Return On Investment is also a measure of the effectiveness of management in managing its investments (Kasmir, 2015). The formula used to calculate Return on investment is as follows:

$$Return\ On\ Investment = \frac{Earning\ After\ Tax}{Total\ Assets} \times 100\% \quad (3)$$

Research Methods

This research uses secondary data from financial reports PT Gudang Garam, Tbk that have been published from 2010 to 2020. The dependent variable is Return On Investment (ROI) as Y. The independent variables are Working Capital Turnover as (X1) and Receivable Turnover (X2). The model used is multiple regression with Best Linear Unbiased Estimator (BLUE) such as normality test, autocorrelation test, heteroscedasticity test, multicollinearity test, linearity test.

Results and Discussions

Results

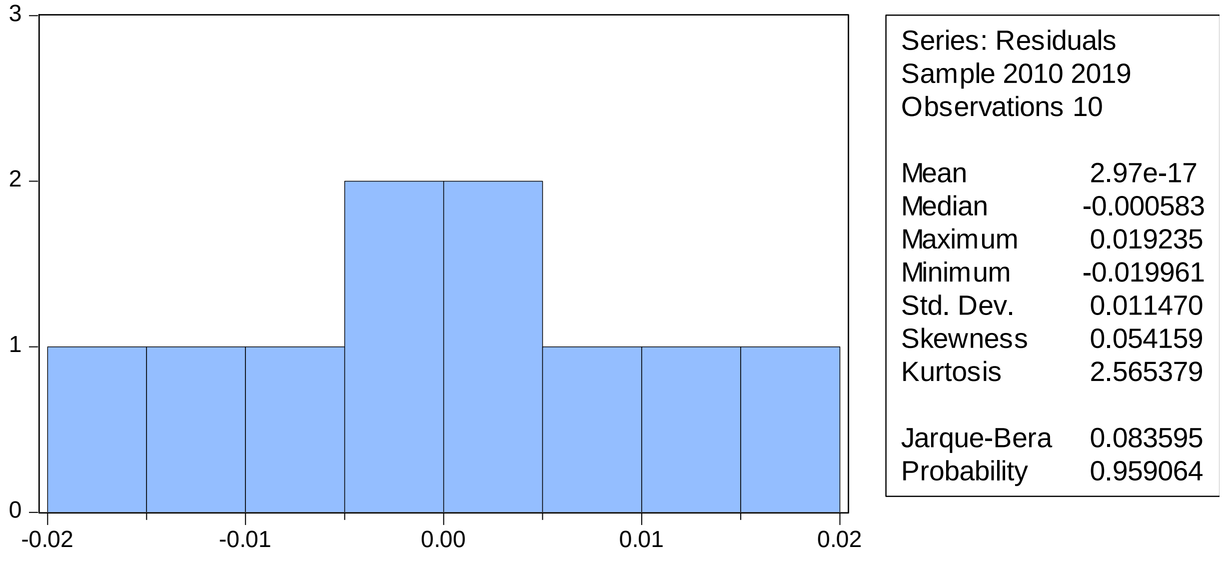

Figure 4 Normality test

Figure 4 shows that the model is normal distribution. It is shown by porbability 0.9590.

Table 4 Autocorrelation test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.267532	Prob. F(2,5)	0.3587
Obs*R-squared	3.364356	Prob. Chi-Square(2)	0.1860

Table 4 shows the model is no autocorrelation. It is shown by prob. chi-square (2) 0.1860.

Table 5 Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.435382	Prob. F(2,7)	0.3003
Obs*R-squared	2.908350	Prob. Chi-Square(2)	0.2336
Scaled explained SS	1.115404	Prob. Chi-Square(2)	0.5725

Table 5 shows that the model has no heteroscedasticity. I tis shown by Prob. Chi-Square(2) 0.2336.

Table 6 Multicollinearity

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000984	58.19845	NA
X1	4.30E-05	34.11819	1.007189
X2	2.72E-07	30.36242	1.007189

Table 6 shows that the independent variables have no correlation between X1 and X2. Those are shown by 1.007189.

Table 7 Linearity Test

	Value	Df	Probability
t-statistic	0.147211	6	0.8878
F-statistic	0.021671	(1, 6)	0.8878
Likelihood rasio	0.036054	1	0.8494

Table 7 shows that the model is linear. It is shown by F-statistic on probability 0.8878.

Table 8 Multiple Regressions

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.094301	0.031377	3.005464	0.0198
X1	-0.012278	0.006556	-1.872961	0.1032
X2	0.001442	0.000521	2.766652	0.0278

R-squared	0.596791	Mean dependent var	0.111626
Adjusted R-squared	0.481589	S.D. dependent var	0.018064
S.E. of regression	0.013006	Akaike info criterion	-5.603461
Sum squared resid	0.001184	Schwarz criterion	-5.512686
Log likelihood	31.01731	Hannan-Quinn criter.	-5.703042
F-statistic	5.180370	Durbin-Watson stat	1.454400
Prob(F-statistic)	0.041625		

Table 8 shows multiple regression. Working Capital Turnover (X1) has no effect on Return On Investment (ROI) about 0.1032 > 0.05. Receivable Turnover (X2) has effect on Return On Investment about 0.0278 < 0.05. Working Capital Turnover (X1) and Receivable Turnover (X2) On Return On Investment about 0.041625 < 0.05.

Discussion

Working Capital Turnover has been insignificant on ROI. It is in line to previous studies(Simangunsong, 2021)(Ummah & Efendi, 2022) (Sinaga et al., 2022). However, It contrast to (Halim et al., 2022) (Rahmi & Zulfitra, 2022). Receivable Turnover has been significant on ROI. It is inline to (Suhartono, 2021);(Yanto & Aprilia, 2021); (Nurmawardi & Lubis, 2019). However, others are not significant (Prastika, 2021)(Wulandari & Lubis, 2021).

Working Capital Turnover has a parameter about 0.012278 and negative. If Working Capital Turnover increase 1% so ROI will decrease 0.012278%. Receivable Turnover has a parameter about 0.001442 and positive. If Receivable Turnover increase 1 % ROI will increase 0.001442%.

Conclusion

This research investigates Working Capital Turnover and Receivable Turnover on Return on Investment (ROI). Working Capital Turnover on ROI does not affect significantly partially that is in line to previous studies(Simangunsong, 2021)(Ummah & Efendi, 2022) (Sinaga et al., 2022) meanwhile Receivable Turnover significantly affect on ROI which is inline to (Suhartono, 2021);(Yanto & Aprilia, 2021); (Nurmawardi & Lubis, 2019) partially. Working Capital Turnover and Receivable Turnover on ROI simultaneously affect significantly. This research has limitation of single company and lack of literature review. The future research is look for a new variable to add the model to explain ROI.

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