Journal of International Conference Proceedings (JICP) Vol. 4 No. 2, 478-486, November, 2021
P-ISSN: 2622-0989/E-ISSN: 2621-993X
Https://www.ejournal.aibpm.org/index.php/JICP

The Effects of Net Working Capital on Return on Assets in PT Perkebunan Nusantara III (Persero) Medan

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ARTICLE INFORMATION

Publication Information

Research Article

HOW TO CITE

Amran, Y., &Nisa. (2021). CSR in the Covid-19 situation in Indonesia. *Journal of International Conference Proceedings*, *9*(1), 23-31.

DOI:
https://doi.org/10.32535/jicp.v4i2.1281

Received: 27 September 2021
Accepted: 17 October 2021
Published: 26 November 2021

ABSTRACT

This study deals to reveal whether net working as measured by cash turnover, accounts receivable turnover, inventory turnover has an effect on Return on Assets (ROA) at PT Perkebunan Nusantara III (Persero) Medan on period 2015-2019. This study used an associative approach and quantitative research then it used Kendall Tau correlation test as data analysis technique. The results showed that cash turnover has an effect on ROA, accounts receivable turnover has an effect on ROA, inventory turnover has no effect on ROA, while simultaneously cash turnover, receivable turnover, inventory turnover influenced ROA at PT Perkebunan Nusantara III (Persero) Medan on period 2015-2019.

Keywords: Cash Turnover, Inventory Turnover, Net Working Capital, Receivable Turnover, Return on Assets (ROA)

JEL Classification: M41, G4, M40

INTRODUCTION

A very difficult economy demands every company must be able to survive and even develop and improve business results which is carried out by good managing in maintaining company performance. The more effective the profit generated, the company will generate large profits and will be able to grow rapidly. Return on Assets (ROA) is one of the financial indicators that provides an overview of the company's ability to maximize financial results and even how much the company's returns on investment returns, so that management will develop company results in achieving company business activities. (Grullon, G., Michaely, R., Benartzi, S. & H., 2005)

The available funds are used to fulfil the company activities absolutely affects management performance because these funds will be used for adequacy of Working Capital. (Fahlevi Ainul Yaqin, Supramono, 2019). Working capital is a company's investment in short-term assets, cash, securities, inventories and receivables (Fahmi, 2015). Working capital is an important element of the company in financing business activities, and fulfill all business needs in accordance with the plans and the capital is used as company’s investment in short-term assets such as cash, securities, receivables, inventories and other current assets.

Three components of working capital are cash, accounts receivable, and inventory. From those components intend to increase profitability and company's growth (Tryfonidis, 2006). The faster the results of the turnover of cash, receivables and inventories, so the better the condition of the company's financial funds. Because, the working capital turnover ratio is a ratio used to measure how many times the funds are invested in working capital, which rotates in one period or how many sales can be achieved by each working capital used. (Jakfar, 2015) therefore cash turnover, receivables and inventories affect profitability with stock ROA. If the turnover of working capital gets slower, then the results of using working capital are less effective and efficient (Esra, 2005).

PT Perkebunan Nusantara III (Persero) Medan, one of Badan Usaha Milik Negara (BUMN) which is engaged in oil palm and rubber plantations business. PT Perkebunan Nusantara III (Persero) Medan also requires a good working capital turnover, because the capital turnover will affect the risks that influence all company’s activities. If the company is getting a shortage of its own capital, so company's operational activities will get hampered, then company needs to investigate the comparison of working capital turnover ratio to its profitability.

BUMN should be able to maintain the rhythm of any existing capital turnover, and merely increase the turnover in order to generate the more effective and efficient company's performance.

LITERATURE REVIEW

According to (Kasmir dan jakfar, 2015) ROA is a ratio that shows the results (return) on the amount of assets used in a company. Meanwhile, according to (Fahmi, 2015) ROA is a ratio deals to see the extent of investments are able to provide a return of profits as expected.

Working capital turnover is one of the ratios deals to measure or assess the effectiveness of company's working capital during a certain period. It means that the faster the working capital rotates for a period even during a certain period, the higher the good working capital turnover and generate company's performance in reaching profits in that period

(Kasmir, 2011). A high turnover of working capital is certainly more effective and efficient in utilizing its working capital.

Cash turnover is the number of times cash rotates in a certain period through sales (Santoso, 2016). The higher the cash turnover within its use, surely, it will affect the ability of assets within profit. Receivables are claims or bills in other forms of money to a person or a company due to previous credit sales (Mulya, 2009). Receivables also have a big role in increasing profit growth because the higher the receivables turnover, the more effective the company in utilizing its capital. Inventory turnover is the number of times goods are sold and held back during a certain period (S. Rahayu, 2014). Inventory is also a part of assets that are very influential in increasing profit growth, if the inventory is piling up then it will affect profits.

The Effects of Cash Turnover on Return on Assets
Cash is the company's most liquid asset, (Kasmir, 2011) cash is the value of cash in a company along with other items which in the near term can be cashed out as a means of payment for financial needs, which has the highest level of liquidity. In addition to being used to fulfill the company's operational activities, short-term obligations that will be due soon and also will also be able to fulfill their urgency by cash so that the size of cash will greatly affect companies that have large short-term liabilities. Thus, the better the cash management of a company, the greater the impact on the availability of sufficient cash, so the company has no difficulty in meeting its short-term obligations. (Diamond, 2004).

The Effect of Accounts Receivable Turnover on Return on Assets
Receivables are one of the bills for payment of goods and services to customers and other parties (Gruschow, R., M., Kemper, J., 2016). The higher the receivables turnover, the more effective and efficient the company will be. This is because the higher the turnover rate will affect the amount of cash or working capital, which is very necessary in fulfilling the company's operational activities as well as fulfilling short-term obligations that will be due. If there is a delay in the collection of receivables, so the receivables turnover will be even lower and the company will get less effective and efficient in maximizing its working capital.

The Effects of Inventory Turnover on Return on Assets
According to (Riyanto, 2011) Inventory turnover is the ability of funds embedded in inventory to rotate within a certain period, or the liquidity of the inventory and the tendency to overstock. The faster the results of increasing inventory turnover, the better the results of investment in the net selling company. Overstock will greatly affect the amount of company’s profit and long-time overstock will arise damages.

The Effect of Net Working Capital on Return on Assets
Based on net working capital, it is part of cash turnover, accounts receivable turnover, inventory turnover that has an influence in increasing the ability of higher and more efficient working capital turnover, in which the liquidity factor is important matter in fulfilling its working capital, especially to cover the company's operational activities and also its short-term obligations. This is closely related to the profitability of a company. High working capital does not necessarily describe the company will have a high profit as well, but from every working capital turnover that is getting up, it will certainly be able to show the company can be effective and efficient in using its working capital for achieving profit.

RESEARCH METHOD

This is a causal associative research. According to (Sugiyono, 2010) Causal associative research is a research deals to analyze the relationship between one variable and another or how one variable affects other variables.

Dependent Variable
Return on Asset is a ratio deals to determine the ability of the company's total assets to generate profits (Hani, 2015).

$$\text{Return on assets} = \frac{\text{net income}}{\text{total asset}} \text{ x } 100\%$$

Independent Variable
According to (Kasmir, 2011) Cash is the value of cash of a company along with other items which in the near future can be cashed out as a means of payment for financial needs, which has the highest level of liquidity.

$$\text{Cash turn over} = \frac{\text{sales}}{\text{cash average}} \text{x}100\%$$

According to (James C. Van Horne, and John M. Wachowicz, 2014) Receivables turnouver ratio is reckoned by dividing the receivables into annual credit sales.

$$\text{Receivable turn over } = \frac{\text{Sales}}{\text{Receivable Average}} \text{x}100\%$$

According to (Munawir, 2010,) Inventory turnover is a ratio between the total cost of goods sold with the average value of the inventory owned by the company.

$$\text{Inventory Turn over } = \frac{\text{Number of Goods Sold Cost}}{\text{Stock Average}} \text{x}100\%$$

The data used in this study were collected by using documentation from the financial statements (profit and loss and balance sheet) at PT Perkebunan Nusantara III (Persero) Medan for the period 2015 to 2019. The technique used in this research is the Kendall Tau correlation (Sugiyono, 2007). The Kendall Tau correlation is used to find relationships and test hypotheses between two or more variables, if the data are ordinal and ranked.

$$\mathrm{T} = \frac{\sum \mathrm{A} - \sum \mathrm{B}}{\frac{\mathrm{N}\,(\mathrm{N}-1)}{2}}$$

$$\mathbf{Z} = \frac{\mathbf{t}}{\sqrt{\frac{\mathbf{2\,(2N+5)}}{\mathbf{9\,N\,(N-1)}}}}$$

Where, T: Kendall Tau's correlation coefficient (-1 < t, 1), A: number of top ranks, B: number of bottom ranks, N: number of samples, Z: consulted calculation results.

RESULTS

Descriptive Analysis

The following is a table of ROA, cash turnover, receivables turnover and inventory turnover of PT Perkebunan Nusantara III (Persero) Medan in the 2015-2019 period as follows.

Table 1. Return on asset, cash turnover, receivables turnover and inventory turnover of PT Perkebunan Nusantara III (Persero) Medan for period 2015-2019.

Year	ROA	cash turnover	receivables turnover	inventory turnover
2015	1.33%	5.37 times	19.08 times	17.50 times
2016	1.98%	7.10 times	5.61 times	18.00 times
2017	2.47%	7.58 times	2.08 times	12.22 times
2018	2.29%	9.10 times	1.03 times	10.52 times
2019	1.60%	3.10 times	6.54 times	11.82 times
Average	1.93%	6.45 times	6.87 times	14.01 times

In 2016 ROA of PT Perkebunan Nusantara III (Persero) Medan got an increase of 1.98% and in the same year cash turnover and inventory turnover also increased by 7.10 times and 18.00 times but it is contrary to receivables turnover, in the same year it got a decrease in receivables turnover to 5.61 times and this was a very drastic decrease from 19.08 times in the previous year.

In 2017 ROA of PT Perkebunan Nusantara III (Persero) Medan got increase again of 2.47% and in the same year only cash turnover increased by 7.58 times but inversely to accounts receivable turnover and inventory turnover which in the same year degrade to 2.08 times and 12.22 and this shows that the increase in ROA is not accompanied by an increase in accounts receivable turnover and inventory turnover.

In 2018 ROA of PT Perkebunan Nusantara III (Persero) Medan slightly degraded by 2.29% and in the same year only cash turnover also increased by 9.10 times but contrary to receivables turnover and inventory turnover which in the same year continued to degrade to 1.03 times and 10.52 and this shows that the degradation of ROA, receivables turnover ratio and inventory turnover continues to degrade.

In 2019 ROA of PT Perkebunan Nusantara III (Persero) Medan degraded again of 1.06% and in the same year cash turnover also got degradation 3.10 times but on the contrary it was reversed to be the opposite of inventory turnover and receivables turnover which in the same year increased 6.54 times and 11.82 and this shows that the ratios of receivables and inventory turnover are not followed by an increase in the ratio of ROA

Data Analysis

Table 2. Correlation

		ROA	Cash turnover	Receivable turnover	Inventory turnover	Return On Asset
Kendall's tau_b	Cash turnover	Correlation Coefficient Sig. (2-tailed) N	1,0000 . 5	-,800 ,050 5	-,200 ,624 5	-,600 ,142 5
	Receivable turnover	Correlation Coefficient Sig. (2-tailed) N	-,800 ,050 5	1,0000 . 5	,400 ,327 5	-,800 ,050 5

	Inventory turnover	Correlation Coefficient Sig. (2-tailed) N	-,200 ,624 5	,400 ,327 5	1,0000 . 5	-,200 ,624 5
	Return On Asset	Correlation Coefficient Sig. (2-tailed) N	-,600 ,142 5	-,800 ,050 5	-,200 ,624 5	1,0000 . 5
		1.93%	6.45 times	6.87 times	14.01 times	14.01 times

a. Cash turnover to return on asset

Cash turnover from the results of the significant correlation test can be obtained a calculated cash turnover of 1.469, with the following formula:

$$Z = \frac{t}{\sqrt{\frac{2\,(2\,N+5)}{9\,N\,(N-1)}}} = \frac{0,600}{\sqrt{\frac{2\,(2.5+5)}{9.5\,(5-1)}}} = \frac{0,600}{\sqrt{\frac{30}{180}}} = \frac{0,600}{\sqrt{0,1666}} = \frac{0,600}{0,4081666} = 1,469$$

Based on the calculation, Z is 1,469 >sig 0,142 so Ho is accepted. From that table, it can be concluded that normal curve of significant level 5%. The results show that there is a very significant positive relationship between variable X, namely cash turnover on ROA (Y). This pointed out that cash turnover shows the ability of cash to generate income, so it can be seen that how many times the cash flows in a certain period. The higher the value of cash turnover, the higher the value of the company's ROA.

Cash turnover shows the results of cash's ability in achieving revenue, thus obtaining the number of times cash is rotated in a certain period. The results of this study are in line with Rahma (2016) which states that cash turnover has no effect on ROA.

b. Receivable turnover on return on asset

Receivable Turnover from the significant correlation test results can be obtained a calculated receivables turnover of 1,959, with the following formula:

$$Z = \frac{t}{\sqrt{\frac{2\,(2\,N+5)}{9\,N\,(N-1)}}} = \frac{-0,800}{\sqrt{\frac{2\,(2.5+5)}{9.5\,(5-1)}}} = \frac{-0,800}{\sqrt{\frac{30}{180}}} = \frac{-0,800}{\sqrt{0,1666}} = \frac{-0,800}{0,4081666} = 1,959$$

Based on the calculation, Z is 1,959 > sig 0,050 so Ho is accepted. From that table, it can be concluded that normal curve of significant level 5%. The results show that there is a very significant positive relationship between variable X, namely receivables turnover on ROA (Y). This pointed out that receivables turnover can be used to predict ROA, with a positive relationship, that means increasing receivables turnover can increase the company's ROA. The management must make plan to the targets who will become loyal customers, so in providing credit policies, it can be in accordance with customer conditions because this can invent the smoother or higher receivables turnover rate smoother or higher thus it can increase the company's ROA. The results indicate the receivables turnover has an effect on ROA.

c. Inventory turnover on return on asset.

Inventory turnover from the significant correlation test results can be obtained a calculated inventory turnover of -0,489, with the following formula:

$$Z = \frac{t}{\sqrt{\frac{2\,(2\,N+5)}{9\,N\,(N-1)}}} = \frac{-0,200}{\sqrt{\frac{2\,(2.5+5)}{9.5\,(5-1)}}} = \frac{-0,200}{\sqrt{\frac{30}{180}}} = \frac{-0,200}{\sqrt{0,1666}} = \frac{-0,200}{0,4081666} = -0,489$$

Based on the calculation, Z is 0,489 < sig 0,624 so Ho is denied. From that table, it can be concluded that normal curve of significant level 5%. The results show that there is a very significant negative relationship between variable X, namely inventory turnover on ROA(Y). This indicates that inventory turnover has no effect on ROA, of course, this is not in line with the theory that states (Diana and Bambang, 2016) If the inventory turnover is getting longer, then the inventory will be accumulates and the costs to maintain them will be getting bigger and affect the generated profit.

d. Return on asset
ROAfrom the significant correlation test results can be obtained a calculated ROAof 2,449, with the following formula:

$$Z = \frac{t}{\sqrt{\frac{2\,(2\,N+5)}{9\,N\,(N-1)}}} = \frac{1{,}000}{\sqrt{\frac{2\,(2.5+5)}{9.5\,(5-1)}}} = \frac{1{,}000}{\sqrt{\frac{30}{180}}} = \frac{1{,}000}{\sqrt{0{,}1666}} = \frac{1{,}000}{0{,}4081666} = 2{,}449$$

Based on the calculation, Z is 2,449 > sig 0,00 so Ho is accepted. From that table, it can be concluded that normal curve of significant level 5%. The results show that there is a very significant positive relationship between variable X on ROA(Y). Thus, the whole independent variable which is used in this research, variable cash turnover, receivables turnover, inventory turnover simultaneously has a significant positive effect on return inventories. Because if the cash turnover, receivables turnover, inventory turnover moves thoroughly and simultaneously then it will increase inventory of a company. The Sales growth is related to increasing, receivables, inventory and also cash balances that have a close relationship with working capital needs and it will affect to the components of current assets.

DISCUSSION

Cash turnover has an effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. This means that the higher the value of cash turnover, the higher the inventory of that company, the company will earn high profits and obtain smaller debt. Receivable turnover has an effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. It means, the company is able to plan the opinions of consumers who will be used as loyal customers to provide credit policies so as to be able to make the level of receivables turnover higher, thereby increasing the ability of ROA.

Inventory turnover has no effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. This means that the lower the inventory turnover rate, so the ROA will be low, due to the large amount of inventory in the warehouse thus it can cause losses by the costs of storing and maintaining inventory as well as the changes of consumer tastes.

Cash turnover, receivable turnover, inventory turnover has an effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. This means The Sales growth is related to increasing, receivables, inventory and also cash balances that have a close relationship with working capital needs and it will affect to the components of current assets. Therefore, the company will keep going to increase cash turnover, receivables turnover, inventory turnover in generating the company’s increasing because by managing cash turnover, accounts receivable turnover, inventory turnover efficiently and effectively to improve company’s performance.

CONCLUSION

Cash turnover and Receivable turnover has an effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019 While Inventory turnover has no effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. Simultaneously cash turnover, receivable turnover, inventory turnover has an effect on ROA at PT Perkebunan Nusantara III (Persero) Medan on the period 2015-2019. In line with the existing theory, in this case the investment that has been invested is able to provide a return of profits as expected. A good working capital turnover is certainly more effective and efficient in utilizing its working capital.

ACKNOWLEDGMENT
As the author, I would like to thank Muhammadiyah University of North Sumatra through the Institute for Research and Community Service (LP2M) of Muhammadiyah University of North Sumatra, which has provided research funding assistance until the results of this research were published.

DECLARATION OF CONFLICTING INTERESTS
This research was funded by Muhammadiyah University of North Sumatra through the Institute for Research and Community Service (LP2M) Muhammadiyah University of North Sumatra. And the author declares that the author has no conflict of interest. In this regard, In accordance with that, I as an author have disclosed those interests fully to the Journal of International Conference Proceedings (JICP), and I have in place an approved plan for managing any potential conflicts arising from (that involvement).

REFERENCES

Diamond, D. W. (2004). Presidential Address, Committing to Commit: Short-term Debt When Enforcement Is Costly. *Journal Of Finance*, 59(4), 1447–1479. https://doi.org/10.1111/j.1540- 6261.2004.00669.x

Esra, M. A. dan P. A. (2005). Manajemen Modal Kerja. *Jurnal Ekonomi Perusahaan*, STIE IBii, 12(1), 99–222.

Fahlevi A. Y, Supramono, R. A. P. (2019). Perputaran Modal Kerja Dan Perputaran Piutang Terhadap Return On Asset Pada Perusahaan Manufaktur Sub Sektor Otomotif. Manager, 2(1), 114–126. *http://ejournal.uikabogor.ac.id/index.php/Manager/index*

Fahmi, I. (2015a). *Pengantar Manajemen Keuangan*. Bandung. Alfabeta.

Fahmi, I. (2015b). *Pengantar Manajemen Keuangan*. Alfabeta.

Grullon, G., Michaely, R., Benartzi, S., & T., & H., R. (2005). Dividend Changes Do Not Signal Changes in Future Profitability. *Journal of Business*, 78(5), 1659–1682.

Gruschow, R., M., Kemper, J., dan B. M. (2016). How Do Different Payment Methods Deliver Cost and Credit Efficiency in Electronic Commerce? Electronic Commerce research and Applications,. 18, 27–36. https://doi.org/10.1016/j.elerap.2016.06.001

Hani, S. (2015). *Teknik Analisa Laporan Keuangan*, Medan : Umsu Press. Medan.

Jakfar, K. dan. (2015). *Studi Kelayakan Bisnis*, Edisi Revisi. , Prenadamedia Group.

James C. Van Horne, dan John M. Wachowicz, J. (2014). *Primsip-prinsip Manajemen Keuangan (Fundamentals of Financial Management)*. Edisi 13 Buku 2. Jakarta: Salemba Empat.

Kasmir. (2011). *Analisis Laporan Keuangan*,. Rajawali Pers, Jakarta.

Kasmir. (2012). *Analisis Laporan Keuangan* (cetakan ketiga). Jakarta: PT Raja Grafindo Persada.

Kasmir. (2016). *Pengantar Manajemen Keuangan*, Penerbit : Kencana Pranada Media Group,. jakarta.

Kasmir dan jakfar. (2015). *Studi Kelayakan Bisnis*, Edisi Revisi, Prenadamedia Group,.

jakarta.

Mulya, M. H. (2009). *Akuntansi Keuangan Menengah 1 Piutang*.

Munawir. (2010). *Analisis Laporan Keuangan*. (Edisi Keempat) Cetakan Kelima Belas. Liverty Yogjakarta.

Rahayu, dan S. (2014). Pengaruh Perputaran Kas, Perputaran Piutang Dan Perputaran Persediaan Terhadap Profitabilitas Perusahaan Manufaktur. *Jurnal Ilmu Manajemen*, 2(4), 1444-1454.

Riyanto, B. (2011). *Dasar-dasar Pembelajaran Perusahaan*. Yogjakarata: BPFE.

Santoso, D. dan. (2016). Pengaruh Perputaran Kas, Perputaran Piutang, Perputaran Persediaan Terhadap Profitabilitas Pada Perusahaan Semen di BEI. *Jurnal Ilmu Dan Riset Manajemen*, 5(3), hal 2-17.

Sugiyono. (2007). *Statistik Untuk Penelitian. Bandung*: CV Alfabeta.

Sugiyono. (2010). *Metode penelitian kuantitatif, kualitatif, dan R & D*. Bandung, Alfabeta.

Tryfonidis, L. and. (2006). The relationship between working capital management and profitability of listed companies in the athens stock exchange. *Journal of Business Finance & Accounting*, 19(1), 1–12.