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# The Effect of Working Capital Efficiency, Liquidity and Firm Size on Profitability in The Infrastructure Sector Listed on The Indonesian Stock Exchange

Shafirra Thasa Oktaputri<sup>1</sup>, Haryati Setyorini<sup>1\*</sup>

<sup>1</sup>Universitas Hayam Wuruk PERBANAS Surabaya, Indonesia \*Correspondence: <u>haryati.setyorini@perbanas.ac.id</u>

#### ABSTRACT

This study investigates the relationship between profitability and working capital efficiency, liquidity, and business size. The efficiency of working capital is assessed by the turnover of working capital. The current ratio is used to gauge liquidity. Total firm size is determined by the ln of total assets. This study employs a sample of sixty annual reports from twelve infrastructure-sector businesses listed on the Indonesia Stock Exchange from 2016 to 2020. Method of multiple linear regression utilized in an analytical procedure. The findings demonstrated that working capital efficiency, liquidity, and business size had a substantial and negative impact on profitability. The test findings revealed a correlation between working capital efficiency, liquidity, and business size and profitability. The magnitude of the effect was 16,9%, while the remaining 83,1% was influenced by other factors outside this research.

KEYWORDS: Firm Size, Liquidity, Working Capital Efficiency

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### INTRODUCTION

There are hundreds of major and small service firms operating in several areas in Indonesia. Faced with heavy industrial rivalry, companies or industries must be able to expand and advance their company in a sustainable manner. The future viability of the industrial world may be determined by the well-maintained business and steady financial position over a given time period.

The most important issue that entrepreneurs must consider is maximizing profits, since every firm must seek to create maximum profits or profits in order to survive. When a firm creates significant profits, ensuring the company's existence, and having a positive influence on the community outside the organization, it is a management accomplishment in managing the company's operations. (Martono & Harjito, 2010:3).

Previous researches states that working capital turnover has a significant positive effect on profitability (Wahyuliza & Dewita, 2018; Putri Nawalani & Lestari, 2015). Liquidity has a significant negative effect on profitability (Wahyuliza & Dewita, 2018;

Pradnyanita & Triaryati, 2019), while the research conducted by Madushanka Jathurika (2018) shows that liquidity has a significant positive effect on profitability. Firm size has a significant negative effect on profitability (Pradnyanita Sukmayanti & Triaryati, 2019; Juliana & Melisa, 2019), while according to Kusuma (2018) firm size has a significant positive effect.

Based on the explanation above and the differences in the results in previous studies, the authors are interested in researching "The Effect of Working Capital Efficiency, Liquidity, and Company Size on Profitability in the Infrastructure Sector Listed on the Indonesia Stock Exchange for the 2016-2020 Period". The purpose of this study was to examine the significance of the effect of working capital efficiency, liquidity and firm size on profitability.

### LITERATURE REVIEW

### Profitability

Profitability is the company's ability to assess the efficiency of the use of assets and is used to measure the sales it has generated. There are four ratios, namely Basic Earnings Power (BEP) or Economic Profitability, Return on Equity (ROE), Return on Investment (ROI) or Return on Assets (ROA) and Profit Margin. (Wahyudiono, 2014:81-83).

### **BEP or Economic Profitability**

 $BEP = \frac{Laba \ Operasi}{Rata-rata \ Aktiva} \ x \ 100\% \qquad \dots (1)$ 

BEP shows the ability of assets to earn a profit from the company's operations.

### **Return On Equity (ROE)**

$$ROE = \frac{Laba Setelah Pajak}{Rata-rata Modal Sendiri} x 100\% \qquad \dots (2)$$

ROE shows how much profit or profit will be the right of the owner of his own capital.

### **Return On Investment (ROI)**

$ROI = \frac{Laba Bersih Setelah Pajak}{x 100\%}$	(3)
Rata-rata kekayaan	(8)

These two ratios are the same and the ROI shows how much net profit after tax can be generated from the average of all assets owned by the company.

### Profit Margin

$$PM = \frac{Laba \ Operasi}{Penjualan} \ x \ 100\% \qquad \dots (4)$$

PM shows how much operating profit can be obtained from each rupiah of sales.

### Return On Assets (ROA)

$$ROA = \frac{Laba Bersih}{Total Aset} x \ 100\% \qquad \dots (5)$$

ROA shows the company's ability to identify or evaluate the effectiveness and efficiency of the company's management in managing all of its assets (Lutfi et al., 2020:68).

The measurement of profitability in this research uses Return On Assets (ROA). ROA shows the company's ability to manage all of its assets.

### Working capital

Working capital in the company must always rotate or always in an operating state as long as the company operates. The working capital turnover period begins when cash or capital is invested in working capital components until it returns to cash (Yuniningsih, 2018: 115).

## Working Capital Concept

The concept of working capital is divided into three, namely the quantitative concept or gross working capital (Gross Working Capital), the qualitative concept or net working capital (Net Working Capital) and the functional or non-working capital concept (Yuniningsih, 2018:111-112).

1. Quantitative Concept

This concept is based on the quantity of funds invested or invested in the elements of current assets regardless of the amount of current debt.

2. Qualitative Concept

This concept is associated with current assets with current liabilities. Current assets that can actually be used to finance company operations without disrupting liquidity. Some of the current assets must be provided to meet financial obligations and some of the funds may not be used to finance the company's operations.

3. Functional Concept

This concept is based on the function of funds in generating income (income). Any funds to be used must be aimed at generating income. There are some funds in the accounting period that generate income in that period (current income) and some funds are used to generate income in future periods (future income).

The efficiency level of a company can be measured using financial ratios, namely the activity ratio or efficiency ratio. The efficiency ratio is the ratio used to measure the effectiveness of the company in utilizing existing resources, the following are the types of efficiency ratios (Hery, 2015:211-2019):

# Accounts Receivable Turnover (Accounts Receivable Turnover)

Accounts Receivable Turnover =	Penjualan Kredit Rata–rata Piutang	(6)
	Rata–rata Plutang	

This ratio is used to measure how quickly receivables are successfully collected and returned to cash in one period.

### **Inventory Turnover**

Inventory Turnover =  $\frac{Harga Pokok Penjualan}{Rata-rata Persediaan}$  ... (7)

This ratio is used to measure how fast the company's inventory rotates in one period.

# Working Capital Turnover

Working capital turnover formula according to (Munawir, 2007:80)

Working Capital Turnover = 
$$\frac{Penjualan Bersih}{(Aktiva Lancar-Hutang Lancar)} \qquad ... (8)$$

This ratio is used to measure the effectiveness of the company's working capital in making sales.

### Fixed Asset Turnover (Fixed Asset Turnover)

Fixed Asset Turnover = 
$$\frac{Penjualan}{Rata-rata Aset Tetap}$$
 ... (9)

This ratio is used to measure the effectiveness of fixed assets owned by the company in generating sales.

The measurement of working capital efficiency in this research uses Working Capital Turnover (WCT). WCT shows the effectiveness of working capital owned by the company in making sales.

### Liquidity

Liquidity is the company's ability to meet all obligations or pay its short-term debts as they fall due (Hery, 2015:149). This can be seen from the operating profit margin (operating cash flow) which can cover its financial needs to meet maturing obligations (debts). There are two ratios, namely the Current Ratio and Quick Ratio (Yuniningsih, 2018: 53-54).

### **Current Ratio**

$$Current Ratio = \frac{Aktiva \ Lancar}{Hutang \ Lancar} \qquad \dots (10)$$

This ratio is used to determine the company's ability to meet short-term obligations using total current assets.

### Fast Ratio

Quick Ratio = 
$$\frac{(Aktiva \ Lancar - Persediaan)}{Hutang \ Lancar}$$
 ... (11)

This ratio is used to determine the company's ability to meet short-term obligations without including inventory because it is considered the least liquid current asset.

### Cash Ratio

This ratio is used to determine the company's ability to meet its short-term obligations by entering cash and securities available in the company (Hery, 2016:152).

$$Cash Ratio = \frac{(Kas + Setara Kas)}{Hutang Lancar} \qquad \dots (12)$$

The measurement of liquidity in this research uses the Current Ratio (CR). CR shows the company's ability to meet its short-term obligations using total current assets.

### **Company Size**

Company size is the size of a company as measured by the total value of assets or net sales (Hartono, 2016:685). The following is a comparison of company size and MSME criteria regulated by the Law of the Republic of Indonesia No. 20 of 2008 with the MSME Government Regulation No. 7 Year 2021:

Table 1. Comparison between the 2008 MSME Law and the 2021 PP MSME

Comparison	RI MSME Law No. 20/2008 PP UMKM No. 7/2021
MSME	MSMEs are classified MSMEs are classified
Criteria	according to their net worth according to the criteria for
	or annual turnover. Net working capital or annual
	worth is the amount of assets turnover. Business capital is

	after deducting debts or	own capital and loan capital to		
	liabilities.	carry out business activities.		
Net Worth or	Micro business	Micro business		
Business	Maximum IDR 50 million	Maximum IDR 1 billion		
Capital	Small business	Small business		
-	More than IDR 50 million -	- More than IDR 1 billion -		
	maximum IDR 500 million	maximum IDR 5 billion		
	Medium Enterprise	Medium Enterprise		
	More than IDR 500 million –	1		
	maximum IDR 10 billion	maximum IDR 10 billion		
Annual Sales	Micro business	Micro business		
Results	At most IDR 300 million	At most IDR 2 billion		
	Small business	Small business		
	More than Rp.300 million -	More than Rp.2 billion -		
	maximum Rp.2.5 billion	maximum Rp.15 billion		
	Medium Enterprise	Medium Enterprise		
	More than IDR 2.5 billion -	More than Rp.15 billion –		
	maximum IDR 50 billion	maximum Rp.50 billion		
		•		

Source: https://peraturan.bpk.go.id/

The size of the company and the criteria for MSMEs that have been regulated by the Law of the Republic of Indonesia No. 20 of 2008 with the MSME Government Regulation No. 7 Year 2021 has a difference. The Law of the Republic of Indonesia describes three types of company sizes that are assessed based on net worth and annual sales results, while the PP on UMKM explains three types of company sizes that are assessed based on operating capital or annual sales results. It is important for entrepreneurs to understand the development of government regulations related to their business so that they can be the basis for steps to be taken in the future. The formula for calculating company size according to (Ahmad & Herni, 2013:139) is as follows:

Firm Size = Natural logarithm (Total Assets) ... (13)

### Effect of Working Capital on Profitability

Good working capital management can be seen from working capital efficiency. Working capital efficiency in question is how the business aims so that the available working capital is not too much or too little. Working capital efficiency can be seen from working capital turnover (WCT). Working capital efficiency can affect the company's profitability. The higher the turnover rate of working capital and the funds or cash invested with working capital return to cash. Thus, the company can carry out its operational activities productively or in other words it is not hampered in fulfilling its working capital and as the company's income increases it will affect the increase in company profitability.

This statement is supported by previous researches states that working capital turnover has a significant positive effect on profitability (Wahyuliza & Dewita, 2018; Putri Nawalani & Lestari, 2015).

### Effect of Liquidity on Profitability

Liquidity is closely related to profitability because the level of company liquidity can be seen from the company's assets which are liquid or easily converted into cash, so

that the company's assets can run well and are not hampered by debt constraints and can meet their operational needs to obtain increased profitability. The higher the liquidity of a company, the smaller the risk of the company's failure to meet its short-term obligations. If the company manages excess funds or cash and uses it to be used in short-term investments, the company will get a profit from the investment and will not become idle cash.

On the other hand, high liquidity is not always profitable because the company has more current assets, but the company will lose the opportunity to make a profit, because the funds are used to meet liquidity in infrastructure sector companies. Thus, it will affect the decline in the company's ability to earn revenue and affect the decline in company profitability. Pradnyanita and Triaryati (2019) which proves that liquidity has a significant negative effect on profitability, while research conducted by Madushanka & Jathurika (2018) shows that liquidity has a significant positive effect on profitability.

### The Effect of Firm Size on Profitability

Company size is the amount and variety of production capacity and capabilities owned by a company or the number and variety of services that the company can provide to its customers (Niresh & Velnampy, 2014). The size of the company describes the total wealth owned by the company, the greater the total wealth, the greater the size of the company. Companies that have a large scale or large company size will find it easier to obtain sources of funds from external parties because they are widely known by the wider community. Thus, when the company is able to manage funds from various external sources properly, it will cause the company's income to increase which also affects its profitability.

On the other hand, large-scale companies are not always profitable because largescale companies will find it easier to incur large amounts of debt to assist the company's operational activities. Companies that cannot manage funds from various external sources will cause the company's revenue to decline and affect the company's profitability to decline. For example, company A owns two buildings, but the other building is not used. So it can be concluded that company A cannot manage funds productively even though company A is a large-scale company.

Juliana & Melisa, (2019) which states that firm size has a negative effect on profitability, while according to Kusuma (2018) firm size has a significant positive effect.



Figure 1. Framework

### METHODS

### Sample Classification

The population used is all infrastructure sector companies listed on the Indonesia Stock Exchange. The sample used in this research is using infrastructure sector companies in the period 2016 to 2020 which are included in the criteria. The sampling technique used in this study used purposive sampling method.

The sampling criteria used by the researchers include infrastructure sector companies listed on the Indonesia Stock Exchange in a row in the 2016 to 2020 period, infrastructure sector companies reporting their financial statements in the 2016 to 2020 period and infrastructure sector companies whose working capital value positive from 2016 to 2020.

### **Research data**

The type of data used by this research is secondary data. Secondary data is research data obtained that is not directly related to providing data to data collectors (Sugiyono, 2018:137). Documentation data collection techniques obtained through the publication of complete financial reports carried out by infrastructure sector companies on the Indonesia Stock Exchange website are:<u>www.idx.co.id</u>.

### Research variable

The research variables used are as follows profitability (ROA) as the dependent variable, while working capital turnover, liquidity and company size as independent variables.

### Variable Operational Definition

### • Profitability

Profitability is the company's ability to earn profits which will be converted into profits and cash flow(Sirait, 2017:139). Profitability in this study is proxied by using Return On Assets (ROA). Return On Assets can be measured by the formula 5.

### • Working Capital Turnover

Working capital turnover can measure the effectiveness of working capital owned by the company in generating sales(Hery, 2015:552). Working capital efficiency in this study will be proxied by working capital turnover (WCT). Working capital turnover can be measured by the formula 8.

### • Liquidity

The liquidity of a company is measured by its ability to meet its short-term obligations when they fall due(Gitman & Zutter, 2015:71). Liquidity in this study will be proxied using the Current Ratio (CR). Current Ratio can be measured by the formula 10.

### • Company size

Company size is a value that shows the size of a company(Annisa & Kurniasih, 2012). The size of the company in this study will be proxied using the company's total assets each year with the formula 13.

#### RESULTS

### **Descriptive Test**

Descriptive analysis is used to describe the variables in the study, while the research variables used are profitability (ROA), working capital turnover, liquidity and company size.

	Ν	Minimum	Maximum	mean	Std. Deviation
Return On Assets	60	-0.25	0.39	0.0416	0.08114
Working Capital	60	0.36	17.07	3,2017	2.83220
Turnover					
Current Ratio	60	1.08	20.14	2.5579	2.99019
Firm Size	60	17.27	24.94	22.3751	1.76473

Based on table 1, it can be seen that the minimum value for the Return On Assets (ROA) variable of -0.25 is owned by PT Nusa Konstruksi Enjiniring Tbk. This means that the company in making sales suffers a loss because the company cannot manage it. Based on this, the net profit of PT Nusa Konstruksi Enjiniring Tbk. valued at -Rp 386,844,114.00 (in thousands of rupiah) which is smaller when compared to its total assets of Rp. 1,555,022,620.00 (in thousands of rupiah) so that this makes the Return On Assets of PT Nusa Konstruksi Enjiniring Tbk. very loss in making sales.

While the maximum value of 0.39 is owned by PT Indonesia Vehicle Terminal Tbk. In 2017, it means that the company's ability to manage all its investments to generate net profits is more effective and optimal, because the higher the ROA ratio, the better the company's ability to earn net profits. Based on this, the net profit of PT Indonesia Vehicle Terminal Tbk. valued at Rp. 130,154,955.00 (in thousands of rupiah) with a total asset of Rp. 334,737,537.00 (in thousands of rupiah) so that this makes the Return On Assets of PT Indonesia Vehicle Terminal Tbk. can be said to be good.

*Return On Assets* has a data distribution (SD) of 0.08114, meaning that this value is greater than the average value of 0.0416. If the standard deviation is greater than the mean, then the distribution of data for return on assets is heterogeneous because the data varies widely.

The results of the descriptive analysis in table 1 show that the minimum value for the Working Capital Turnover (WCT) variable of 0.36 times is owned by PT LCK Global Kedaton Tbk. 2020. This means that the company's sales are smaller because the expenses used by the company are too many and result in small company profits. Based on this, the sales of PT LCK Global Kedaton Tbk. valued at Rp.42,370,902.00 (in thousands of rupiah) which is smaller when compared to its working capital of Rp.117,316,301.00 (in thousands of rupiah) so that this makes the working capital turnover of PT LCK Global Kedaton Tbk. very minimal at all in selling.

While the maximum value of 17.07 times is owned by PT Nusa Konstruksi Enjiniring Tbk. 2017 means that the working capital owned by the company is running effectively, so that the company's performance in managing working capital and generating sales is good. Based on this, the sale of PT Nusa Konstruksi Engineering Tbk. valued at Rp. 1,206,234,001.00 (in thousands of rupiah) which is greater than its working capital which is valued at Rp. 70,651,708,00 (in thousands of rupiah) so that this causes a working capital turnover of PT Nusa Konstruksi Enjiniring Tbk. can be said to be good.

Working Capital Turnoverhas a data distribution (SD) of 2.83220, meaning that this value is smaller than the average value of 3.2017. If the standard deviation is smaller than the mean, then the distribution of data for working capital turnover is homogeneous because it has low variation.

The results of the descriptive analysis in table 1 show that the minimum value for the Current Ratio (CR) variable of 1.08 is owned by PT Nusa Konstruksi Enjiniring Tbk. 2017. This means that the company's ability to meet its short-term obligations is still low, so the company cannot pay off its obligations when they fall due. Based on this, the current assets of PT Nusa Konstruksi Enjiniring Tbk. valued at Rp. 969,613,539.00 (in thousands of rupiah) with its current liabilities of Rp. 898,961,831.00 (in thousands of rupiah) so that this makes the current ratio of PT Nusa Konstruksi Enjiniring Tbk. very minimal in managing its short-term obligations.

While the maximum value of 20.14 is owned by PT LCK Global Kedaton Tbk. In 2016, it means that the company's ability to meet its short-term obligations is higher, so that the company is able to pay off its obligations on time. Based on this, the current assets of PT LCK Global Kedaton Tbk. valued at Rp. 21,953,521.00 (in thousands of rupiah) which is greater than its current liabilities of Rp. 1,090,101.00 (in thousands of rupiah) so that this makes the current ratio of PT LCK Global Kedaton Tbk. can be said to be good.

*Current Ratio*has a data distribution (SD) of 2.99019, meaning that this value is greater than the average value of 2.5579. If the standard deviation is greater than the mean, then the distribution of the data for the current ratio is heterogeneous because the data varies greatly.

The results of the descriptive analysis in table 1 show that the minimum value for the Return On Assets (ROA) variable of 17.27 is owned by PT LCK Global Kedaton Tbk. 2016. This means that the company has the smallest total assets of Rp. 31,574,684.00,- (in thousands of rupiah), where the size of the company is obtained from the natural log of total assets.

While the maximum value of 24.94 is owned by PT Wijaya Karya (Persero) Tbk. in 2020, meaning that the company has the largest total assets of Rp. 68.109.185.213,- (in thousands of rupiah). This company is a large company because companies with large total assets are more stable in the company's operational activities. Judging from the previous years the total assets of PT Wijaya Karya (Persero) Tbk. experienced a significant increase.

*Firm Size*has a data distribution (SD) of 1.76473, meaning that this value is smaller than the average value of 22.3751. If the standard deviation is smaller than the mean, then the distribution of data for firm size is homogeneous because it has low variation.

Table 3. Regression analysis results					
Model		В	tcount	table	Sign.
(Constant)		0.634			
Working	Capital	-0.010	-2,558	1,960	0.013
Turnover					
Current Ratio		-0.012	-2,356	1,645	0.022
Firm Size		-0.024	-2,918	1,645	0.005
Fcount			Ftable		
3,803			2.76		
R2			Sign.		
0.169			0.015		

#### DISCUSSION

Based on table 2, it can be seen that the Fcount value is 3.803 with a significance level of 0.015. Determining Ftable, that is, it can be known with a significance level of 0.05 and df1 = 3 and df2 = 56, so that an Ftable of 2.76 can be obtained. From these results, it can be seen that Fcount is greater than Ftable, namely 3.803 > 2.76 with a significant level of 0.015 < 0.05, so it can be concluded that H0 is rejected and H1 is accepted, which means that the WCT, CR, and Firm Size variables together (simultaneously) has a significant effect on profitability.

Based on table 2 shows that the value of R Square (R2) has a value of 0.169. This shows that the contribution made by Working Capital Turnover (WCT), Current Ratio (CR), and Firm Size simultaneously affects profitability by 16.9% while the remaining 83.1% is influenced by other variables outside the model. The adjusted R Square value shows 12.5%, which means that the ability of the independent variable in explaining the dependent variable tends to be low because it is less than 50%.

The results of the t-test analysis show that working capital turnover has a negative and significant effect on profitability. This can be proven by the Fcount value of -2.558 with a significant level of 0.013. The results of this study are in line with research conducted byReynata et al. (2019) in his research stated that working capital turnover had a significant negative effect on profitability.

A significant negative effect indicates that an increase in working capital turnover will cause a decrease in the company's profitability. This indicates that high working capital turnover indicates that high sales are accompanied by high selling expenses, resulting in a decrease in company profits and an effect on decreasing company profitability.

Excessive working capital will have a negative impact on the company because funds cannot be managed optimally and vice versa if the company lacks working capital, the company must bear high operational costs and maintenance costs. Thus, companies that cannot manage their working capital properly will have an impact on the company's revenue generation and affect the company's profitability.

The results of the t-test analysis show that liquidity has a negative and significant effect on profitability. This can be proven by the Fcount value of -2.356 with a significant level of 0.022. The results of this study are in line with research conducted byPradnyanita Sukmayanti & Triaryati (2019) and Wahyuliza & Dewita (2018)in his research stated that liquidity had a significant negative effect on profitability.

Significant negative effect indicates that the company's liquidity has increased it will cause a decrease in the value of the company's profitability. This indicates that the company has more current assets, but the company will lose the opportunity to make a profit, because the funds are used to meet liquidity in infrastructure sector companies. So that it will affect the decline in the company's ability to earn income and affect the decline in company profitability.

The results of the t test analysis show that the size of the company has a negative and significant effect on profitability. This can be proven by the Fcount value of -2,918 with a significant level of 0.005. The results of this study are in line with research conducted byJuliana & Melisa (2019) and Pradnyanita Sukmayanti & Triaryati (2019) in

his research stated that the size of the company had a significant negative effect on profitability.

Significant negative effect indicates that the increase in the size of the company will cause a decrease in the value of the company's profitability. This indicates that large-scale companies will find it easier to incur large amounts of debt to assist the company's operational activities.

Large-scale companies do not necessarily have good performance in managing their assets, there are still several factors that can affect the size of the company such as asset and liability management. Thus, companies that cannot manage funds from various external sources will cause the company's revenue to decrease and affect the company's profitability.

### CONCLUSIONS

Based on the results of descriptive analysis and hypothesis testing using multiple linear regression, it can be concluded that: (1) Based on the simultaneous test of working capital turnover, liquidity and firm size have a significant effect on profitability in infrastructure sector companies for the 2016-2020 period. (2) Based on the partial test, working capital turnover as a proxy for Working Capital Turnover (WCT) has a significant negative effect on profitability (ROA). This means that high working capital turnover is not always profitable because working capital has not been used efficiently or it can be said that there are many short-term debts that have matured so that the company must pay its debts obtained from sales and affect the decline in company profitability. (3) Based on the partial test of liquidity proxied by the Current Ratio (CR) has a significant negative effect on profitability (ROA). This means that high liquidity is not always profitable because the company has more current assets but the company will lose the opportunity to make a profit, because the funds are used to meet liquidity in infrastructure sector companies. Thus, it will affect the decline in the company's ability to earn income and affect the decline in company profitability. (4) Based on the partial test, the firm size proxied by Firm Size has a significant negative effect on profitability (ROA). This means that large-scale companies will find it easier to carry out large amounts of debt to assist the company's operational activities. However, a company that has a large scale is not necessarily profitable because of the possibility that the company cannot manage funds from various external sources, causing the company's revenue to decrease and affect the company's profitability.

This study has limitations that can affect the results of the study, including: (1) This study only uses a sample of infrastructure sector companies listed on the Indonesia Stock Exchange, so that they are less representative of all service sectors on the Indonesia Stock Exchange. (2) In this study, the adjusted R2 value is still relatively small at 12.5% so that the ability to explain the dependent variable is also small, while the remaining 87.5% are other variables that influence outside the model.

Based on the results and limitations of the research, the suggestions that can be given are: (1) For companies in the infrastructure sector listed on the Indonesia Stock Exchange, it is better to pay attention to the company's ability to manage working capital efficiency to support the company's operational activities so as to increase their income. Also, it is expected to pay attention to the company's liquidity capability in increasing the company's profitability by way of effective and efficient use and management of liabilities. So, it can generate maximum profit. (2) For investors, the results of this study

can be used as information in making decisions. Taking into account the ratio of working capital turnover, liquidity, and the size of the company because the three ratios affect the company's profitability. So that investors can consider this ratio and can provide benefits for investors in the future. (3) For creditors, the results of this study can be used as information in monitoring the company. By looking at the working capital turnover ratio, liquidity and company size. So that creditors can assess infrastructure sector companies in the future. (4a) Further research should use a sample of all sub-sectors of infrastructure, utility and transportation companies listed on the Indonesia Stock Exchange so that the results of further research can be better. (4b) Further research should be able to add other variables that are thought to have an influence on profitability that are not used in this study. Other variables that can be used are cash turnover, inventory turnover and receivables turnover.

### REFERENCES

- Ahmad, R., & Herni, A. (2013). Modern Financial Management. Media Discourse Partners.
- Annisa, NA, & Kurniasih. (2012). The Effect of Corporate Governance on Tax Avoidance. Journal of Accounting And Auditing, 8(2), 95–189.
- Gitman, LJ, & Zutter, CJ (2015). Principles of Managerial Finance (14th ed.). Pearson Education Limited.
- Hartono, J. (2016). Portfolio Theory and Investment Analysis (10th ed.). BPFE UGM.
- Harry. (2015a). Financial Statement Analysis. PT. Grasindo.
- Harry. (2015b). Introduction to Accounting Comprehensive Edition. Gasindo.
- Harry. (2016). Financial Statement Analysis. Gasindo.
- Juliana, A., & Melisa, M. (2019). analysis of the factors that affect the profitability of companies in Indonesia (Case Study: LQ45 Index 2012-2016 Period). Management Insight: Scientific Journal of Management, 13(1), 36–50. https://doi.org/10.33369/insight.14.1.36-50
- Kusuma, RP (2018). Effect of DAR, Company Size, Risk, Tax, and Liquidity on Profitability of Mining Sector Companies in Indonesia. BISMA (Business And Management), 8(2), 191. https://doi.org/10.26740/bisma.v8n2.p191-203
- Lutfi, Sari, LP, & Sihotang, ET (2020). Financial Report Analysis Module. STIE Perbanas Surabaya.
- Madushanka, KHI, & Jathurika, M. (2018). "The Impact of Liquidity Ratios on Profitability (With special reference to Listed Manufacturing Companies in Sri The Impact of Liquidity Ratios on Profitability (With special reference to Listed Manufacturing Companies in Sri Lanka). International Research Journal of Advanced Engineering and Science, 3(4), 157–161.
- Martono, & Harjito, A. (2010). Financial Management (3rd ed.). econicia.
- Munawir. (2007). Financial Statement Analysis (Fourth). Liberty.
- Niresh, JA, & Velnampy, T. (2014). Firm Size and Profitability: A Study of Listed Manufacturing Firms in Sri Lanka. International Journal of Business and Management, 9(4), 57–64.

- Pradnyanita Sukmayanti, NW, & Triaryati, N. (2019). Effect of Capital Structure, Liquidity and Company Size on Profitability in Property and Real Estate Companies. Udayana University Management E-Journal, 8(1), 172. https://doi.org/10.24843/ejmunud.2019.v08.i01.p07
- Putri Nawalani, A., & Lestari, W. (2015). The effect of working capital on profitability in food and beverages companies on the Indonesia Stock Exchange. Journal of Business & Banking, 5(1), 51. https://doi.org/10.14414/jbb.v5i1.472
- Reynata, V., Irman, M., & Hayati, R. (2019). Analysis of the Effect of Working Capital on Profitability in Metal and Similar Sub-Sector Manufacturing Companies Listed on the Indonesian Stock Exchange for the 2013-2017 Period. Bilancia: Scientific Journal of Accounting, Vol.3(2), 232–243.
- Sirait, P. (2017). Financial Statement Analysis (First). Equilibria.
- Sugiyono. (2018). Quantitative, Qualitative, and R&D Research Methods. Alphabet.
- Wahyudiono, B. (2014). Easy to Read Financial Statements (Andriansyah (ed.)). Achieve Asa Success (Group Self-Help Spreader).
- Wahyuliza, S., & Dewita, N. (2018). Effect of Liquidity, Solvency and Working Capital Turnover on Profitability in Manufacturing Companies Listed on the Indonesia Stock Exchange. Benefita Journal, 3(2), 219. https://doi.org/10.22216/jbe.v3i2.3173

Yuniningsih. (2018). Fundamentals of Financial Management. Indomedia Pustaka.