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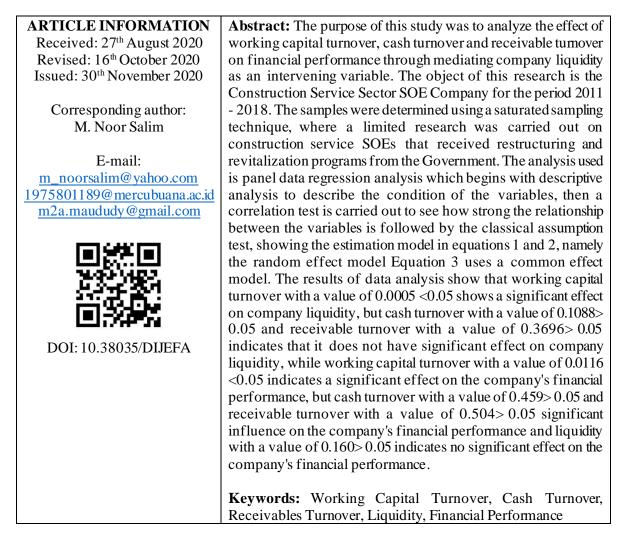
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# DETERMINANTS OF LIQUIDITY AND THEIR EFFECT ON FINANCIAL PERFORMANCE OF CONSTRUCTION SERVICES SOE COMPANIES

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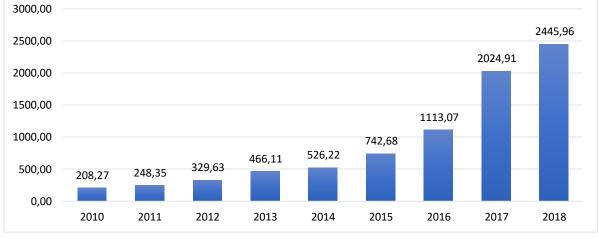
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### **INTRODUCTION**

The construction sector has a very significant role in national economic development. National economic conditions are determined by the size of the construction sector's contribution to the growth of other business sectors. In almost every country, the development of the construction sector will support the creation of better social and economic infrastructure so as to trigger the growth of other economic sectors. Construction sector activities are the driving force in the economic development system. In the concept of performance as the level of company achievement in a certain period which at the same time reflects the company's soundness level (Hidayat, Akhmad, & Mu'alim, 2015). The performance of the construction services sector continues to be a concern, given its services in building facilities and infrastructure to support economic activities in Indonesia.

Companies that are able to compete think that competition is not something that must be avoided but competition is a challenge to face and encourages them to be more professional in managing the companies. The performance factor is the main key in winning the competitive competition. Company performance is the result of implementing company policies such as return on assets that will be used by investors and potential investors as the basis for their decisions to invest (Salim & Wahyuni, 2019). The company's financial performance can be seen from the company's ability to generate profits. In this case it is known that the net profits of construction companies included in State-Owned Enterprises (SEO) are as follows.



Source: Company FinancialStatements (2018) Picture 1 Average Net Profit of SOEs Construction Service Companies (presented in BillionRupiah)

Through the graph presented in Picture 1, it is clear that construction sector companies in the 2011 - 2014 period showed a slight increase in profits, but after 2015 - 2018 the increase in company profits became very significant in each period. In the 2011-2014 period, the government's infrastructure development only covered a number of facilities and infrastructure developments and during that period there were also many government infrastructure developments that were not completed properly. With the change of leadership in the government, new policies were issued, which in early 2015 the government began to carry out massive infrastructure development.

In the 2015 period all government development projects were returned and entrusted back to state-owned enterprises, in which the government demanded an acceleration of development. This condition brought serious challenges for SOEs construction sector companies to undertake a total restructuring and revitalization ("R/R") in an effort to meet the demand for infrastructure development projects. The implementation of SOEs R/R is carried out based on the stipulation by the State Minister for SOEs after obtaining approval from the Minister of Finance with reference to the Regulation of the State Minister for SOEs No. 05/MBU/2012 concerning Amendments to the Regulation of the Minister of State for SOEs Number PER-01/MBU/2009 concerning Guidelines for Restructuring and Revitalization of State-Owned Enterprises by Limited Liability Companies (Persero) PT Perusahaan Manajemen Aset. One of the objectives of implementing R/R is as an effort to maintain the financial condition of SOEs companies to stay sound and have good performance.

The financial performance of state-owned enterprises in the construction sector tends to fluctuate, due to various factors, as mentioned from various scientific studies. From the various factors that exist, this study identifies three main factors that are believed to be the causes of the increase in the company's financial performance such as working capital turnover, cash turnover and account receivable turnover. The identification of these factors is also based on the results of previous research which states that working capital turnover has a positive and significant effect on the company's financial performance (Amalia & Kurniasih, 2018; Fianti, 2017; Rahman, 2016; Supriyadi & Fazriani, 2011). Cash turnover also has an important role in improving the company's financial performance, this is supported by various findings which state that cash turnover has a positive and significant effect on financial performance (Nugroho, Aryani, & Mastur, 2019).

Account receivable turnover also plays an important role in improving financial performance, this has been proven according to research by Nugroho, Aryani, & Mastur (2019), receivable turnover has a negative and significant effect on financial performance. Through the results of the studies, there is no definite evidence or a research gap has occurred, it is possible that there is an intermediary factor, the level of liquidity is believed to be the intermediary variable.

The purpose of this study is to analyze the effect of working capital turnover, cash turnover, account receivable turnover on the company's financial performance mediated by the liquidity of SOEs Construction Services Sector Companies before and after restructuring and revitalization (2011-2018).

### LIBRARY REVIEW

#### **Financial performance**

Financial performance is an analysis carried out to see the extent to which a company has implemented proper and correct financial implementation rules (Harahap, 2016). Financial performance is a description of the achievement of implementation/programs/policies in realizing the goals, objectives, mission and vision of an organization (Munawir, 2014). Information and an overview of the company's financial development can be obtained by interpreting the financial statements, which to see the level of performance of a company can be seen from various financial ratios that the company has. According to Munawir (2014) financial ratios are an analysis method to determine the relationship of certain items in the

balance sheet or income statement individually or in a combination of the two reports. The company's financial performance can be measured through the company's profit to equity ratio or return on equity.

### Effect of Working Capital Turnover on Liquidity

A previous research has proven that working capital turnover has a significant effect on liquidity (Jamara, 2016). Furthermore, it was found that working capital turnover had a significant negative effect on the current ratio (Sriwalet, Sianturi, & Rajaguguk, 2019). Other studies also prove that working capital turnover has a positive and significant effect on liquidity (Supriyadi & Fazriani, 2011). Through these previous studies, the following research hypothesis is developed.

H1: There is a significant influence of working capital turnover on liquidity

### Effect of Cash Turnover on Liquidity

Meanwhile, Sriwalet, Sianturi, & Rajaguguk (2019) stated that cash flow had a significant negative effect on the current ratio. In line with that, it was found that cash turnover partially had a positive and significant effect on company liquidity (Lestari, 2017). Through these previous studies, the following research hypothesis is developed.

H2: There is a significant influence of cash turnover on liquidity

### Effect of Account Receivable Turnover on Liquidity

Account receivable turnover partially affects liquidity as measured by the current ratio (Ammy & Alpi, 2018). Furthermore, it was found that account receivable turnover had a significant effect on liquidity (Hidayat R., 2018). In line with that, it was found that account receivable turnover partially had a positive and significant effect on company liquidity (Lestari, 2017). Through these previous studies, the following research hypothesis is developed. H3: There is a significant influence of account receivable turnover on liquidity

### **Effect of Working Capital Turnover on Financial Performance**

Working capital turnover has a positive and significant effect on profitability (Amalia & Kurniasih, 2018). Other studies have also proven the same finding, where working capital turnover has a significant effect on profitability (Fianti, 2017). In line with these findings, other research state that the level of working capital turnover has a significant positive effect on profitability (Rahman, 2016). Other studies also prove that working capital turnover has a positive and significant effect on profitability (Supriyadi & Fazriani, 2011). Through these previous studies, the following research hypothesis is developed.

H4: There is a significant influence of working capital turnover on financial performance

### **Effect of Cash Turnover on Financial Performance**

Cash turnover has a positive and significant effect on financial performance as proxied by return on assets (Nugroho, Aryani, & Mastur, 2019). It is further proven that cash turnover has a significant effect on financial performance (Suprihatin & Nasser, 2016). In line with that, (Nurhaedin, 2019) proves that cash turnover has a significant effect on company performance. Through these previous studies, the following research hypothesis is developed.

H5: There is a significant influence of cash turnover on financial performance

### Effect of Account Receivable Turnover on Financial Performance

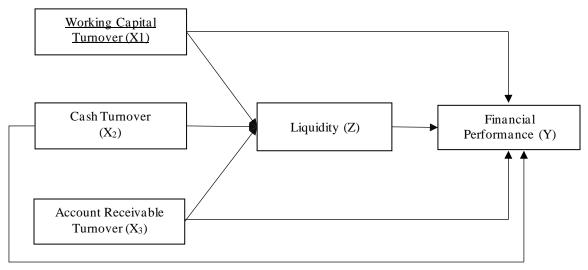
Account receivable turnover has a negative and significant effect on financial performance as proxied by return on assets (Nugroho, Aryani, & Mastur, 2019). Research by (Djodjobo, Magantar, & Roring, 2017) states that account receivable turnover is negatively and significantly related to company performance (ROI). It is further proven that account receivable turnover has a significant effect on financial performance (Suprihatin & Nasser, 2016). Then Yulianto (2015) also proved that account receivable turnover had an effect on profitability. The results of this study are also supported by research conducted by (Wati & Puspitasari, 2015). Through these previous studies, the following research hypothesis is developed. H6: There is a significant influence of receivables turnover on financial performance

### **Effect of Liquidity on Financial Performance**

The liquidity of a company is indicated by the total flow of assets, namely assets that are easily converted into cash, such as cash money, securities, credit, stocks. The more the company has high liquidity, the easier it will be to pay off debts that are due and part of it can be allocated as the company's net profit. Liquidity has a positive and significant effect on profitability (Amalia & Kurniasih, 2018). Research by (Surya, 2014) also proves that liquidity has a significant effect on the company's financial performance. The results of this study are also supported by findings from research conducted by (Puspitarini, 2019). Through these previous studies, the following research hypothesis is developed.

H7: There is a significant influence of liquidity on financial performance

Based on the description of the relationship between the variables above, this research is modelled as follows:



Picture 2. Research Model

# **RESEARCH METHODS**

According to its type, this research is a quantitative research, which is research that tries to measure something appropriately (Cooper & Schindler, 2014, p. 146). The design of this research is causality. The sampling method in this study is *a non-probability sampling*, namely saturated sampling, so that there are as many as 4 state-owned enterprises in the construction

service sector in the 2011-2018 period. There are three types of independent variables, namely working capital turnover (X1), cash turnover (X2), account receivable turnover (X3) which are positioned as independent variables, and one dependent variable, namely financial performance (Y), and one mediating variable, namely liquidity (Z). Data were obtained through the financial statements of each issuer and accessed on the Indonesia Stock Exchange's website. Data were analyzed using panel data regression analysis (with the help of the Eviews program version 11 with the following equation:

Equation model 1:  $Z_{it} = a_1 + b_1 X_{1it} + b_2 X_{2it} + b_3 X_{3it} + e_{1it}$ Equation model 2:  $Y_{it} = a_2 + b_4 X_{1it} + b_5 X_{2it} + b_6 X_{3it} + e_{2it}$ Equation model 3:  $Y_{it} = a_3 + b_7 Z_{it} + e_{3it}$ 

Where  $(X_{1it}) = \text{company}$  working capital turnover i period t,  $(X_{2it}) = \text{company}$  cash turnover i period t,  $(X_{3it}) = \text{company}$  receivables turnover i period t,  $(Z_{it}) = \text{company}$  liquidity i period t,  $(Y_{it}) = \text{company}$  financial performance i period t, (a) = Constant, (b) = regression coefficient and (e) = error.

## **RESULTS**

There are three estimates in conducting panel data regression analysis, namely the *common effect model*, *fixed effect model* and *random effect model*. Through the model selection test (Chow, Hausman and Lagrange Multiple test), it was found that the most appropriate model estimation in equations 1 and 2 was the *random effect model*, while in equation 3 was the *common effect model*. The results of each test are presented in the following sections.

					8	-			
	Liquidity			Financial Performance			Financial Performance		
	b	t	Prob.	b	t	Prob.	b	t	Prob.
Constant	1,371			26,945			11,304		
Working capital	-0,012	-	0,0005				0,339	2,699**	0,0116
turnover		3,921***							
Perputaran Kas	-0,009	-1,565	0,1088				0,168	0,751	0,459
Account Receivable	0,009	0,912	0,3696				-0,259	-0,677	0,504
turnover									
Liquidity				10,492	-1,441	0,160			
R Square	0,521			0,064			0,202		
F Count	10,134***			2,076			2,358*		
Sig	0,0001			0,159			0,093		

 Table 1. Hypothesis Testing Results

\*p<0,05; \*\*p<0,01

### Effect of Working Capital Turnover on Liquidity

The results of regression analysis for data in the 2011-2018 period show the t value of -3.921 with a significance probability of 0.0005. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value 0.0005 is <0.05 then H1 is acceptable, meaning that there is a significant influence of working capital turnover on liquidity. This finding explains that when there is a one-point increase in the working capital turnover variable, the company's liquidity will decrease by the value of the

regression coefficient (b) = -0.012 points. This finding is in line with Jamara's (2016) research, where working capital turnover has a significant effect on liquidity. More specifically, Sriwalet, Sianturi, & Rajaguguk (2019) state that working capital turnover has a significant negative effect on the current ratio. However, this study is not in line with the research of Supriyadi & Fazriani (2011), which states that working capital turnover has a positive and significant effect on liquidity.

## Effect of Cash Turnover on Liquidity

The results of regression analysis for the data in the 2011-2018 period show the t value of -1.565 with a significance probability of 0.1088. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value of <0.05. It can be seen that the value 0.1088 is > 0.05 then H2 is rejected, meaning that there is no significant effect of cash turnover on liquidity. Although not significant, the addition of a cash turnover variable of one point only slightly decreased the company's liquidity, namely in the amount of the regression coefficient (b2) = -0.009. This finding is not in line with Lestari's research (2017) which proves that partial cash turnover has a positive and significant effect on company liquidity. The results of this study are in line with Hidayat's (2018) research, stating that partially cash turnover has no significant effect on liquidity. Furthermore, Mulyani & Supriyani (2018) stated that there was no significant effect of cash turnover and inventory turnover on liquidity.

## Effect of Account Receivable Turnover on Liquidity

The results of regression analysis for the data in the 2011-2018 period show the t value of 0.912 with a significance probability of 0.3696. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value of 0.3696 is > 0.05 then H3 is rejected, meaning that there is no significant influence of the account receivable turnover on liquidity. Although not significant, the addition of a cash turnover variable of one point only slightly decreased the company's liquidity, namely in the amount of the regression coefficient (b3) = 0.009. This finding is not in line with Hidayat's research (2018) which proves that account receivable turnover has a significant effect on company liquidity.

### **Effect of Working Capital Turnover on Financial Performance**

The results of regression analysis for data in the 2011-2018 period show the t value of 2.699 with a significance probability of 0.0116. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value of 0.0116 is <0.05 then H4 is acceptable, meaning that there is a significant influence of working capital turnover on financial performance. This finding explains that when there is a one-point increase in the working capital turnover variable, financial performance will increase by the value of the regression coefficient (b) = 0.339 points. This finding is in line with several researchers who state that working capital turnover has a significant effect on financial performance (Amalia & Kurniasih, 2018; Fianti, 2017); Supriyadi & Fazriani, 2011; Rahman, 2016).

# Effect of Cash Turnover on Financial Performance

The results of the regression analysis for data in the 2011-2018 period show the t value of 0.751 with a significance probability of 0.459. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value of 0.459 is > 0.05 then H5 is rejected, meaning that there is no significant influence of cash turnover on financial performance. Although not significant, the addition of a cash turnover variable of one point only slightly increased company performance, namely in the amount of the regression coefficient (b5) = 0.168 points. This finding is not in line with the research of Suprihatin & Nasser (2016) which proves that cash turnover has a significant effect on financial performance. However, this study is in line with Galuh's (2019) research which proves that receivables turnover has no effect on profitability.

#### Effect of Account Receivable Turnover on Financial Performance

The results of regression analysis for the data in the 2011-2018 period show the t value of -0.677 with a significance probability of 0.504. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value of 0.504 is > 0.05 then H6 is rejected, meaning that there is no significant effect of account receivable turnover on financial performance. Although not significant, the addition of a cash turnover variable of one-point only slightly decreased the company's financial performance, namely in the amount of the regression coefficient (b6) = -0.259 points. This finding is not in line with the research of Djodjobo, Magantar, & Roring (2017), where account receivable turnover is negatively and significantly related to company performance. This finding is in line with Oktavia's (2019) research which states that revenue turnover has no significant effect on the company's financial performance.

### Effect of Liquidity Turnover on Financial Performance

The results of regression analysis for data in the 2011-2018 period show the t value of -1.441 with a significance probability of 0.160. The significance level ( $\alpha$ ) used is 5% so that the hypothesis is acceptable when it has a probability value <0.05. It can be seen that the value 0.160 is > 0.05 then H7 is rejected, meaning that there is no significant effect of liquidity on financial performance. Although not significant, the addition of a cash turnover variable of one-point only slightly decreased the company's financial performance, namely in the amount of the regression coefficient (b7) = 10.492 points. This finding is not in line with the research of Surya's (2014) research which also proves that liquidity has a significant effect on the company's financial performance. The results of this study are in line with Trisna's (2019) research which proves that liquidity does not have a significant effect on profitability.

### **Indirect Effect**

This section describes the effect of working capital turnover, cash turnover and receivables turnover on financial performance indirectly or through the mediation of liquidity variables. The test is carried out with the Sobel test which is formulated as follows.

$$t \ value = \frac{b_i b_7}{S_{b_i 7}}, \ s_{b_i b_7} = \sqrt{b_7^2 \ sb_i^2 + \ b_i^2 sb_7^2 + sb_i^2 sb_7^2}$$

Where bi represents the regression coefficient value of working capital turnover (b1 = 0.012), cash turnover (b2 = -0.009), and account receivable turnover (b3 = 0.009) on liquidity, while b7 = -10.492 represents the regression coefficient value of the effect of liquidity on performance finance. Then s<sub>bi</sub> represents the standard error value of the working capital turnover variable (s<sub>b1</sub> = 0.003), cash turnover (sb2 = -0.005), and account receivable turnover (s<sub>b3</sub> = 0.010) on liquidity, while s<sub>b7</sub> = 7.282 represents the standard error value of the effect of liquidity on financial performance. Through this formula, the t value can be obtained as shown in the following table.

Table 2. Indirect Effect							
	Coefficient	Std. Error	t value	Remark.			
$X_1\!\rightarrow Z \rightarrow Y$	0,128	0,097	1,319	Not significant			
$X_2 \!\rightarrow Z \!\rightarrow Y$	0,096	0,097	0,997	Not significant			
$X_3 \!\rightarrow Z \!\rightarrow Y$	-0,094	0,140	-0,673	Not significant			
	Sour	rea: Data processed (2)	020)				

Source: Data processed (2020)

Through the results of the Sobel test analysis, it is known that the t value of each effect is indirect. It is said that the effect is significant when the analysis results show the value of -t table > t value > t table. In this case the t table is obtained by looking at the t table for df (amount of data - number of independent variables) = 29 and  $\alpha$  = 0.05 for a two-way test, so that the t table is 2.04523. Thus, it is known that the value 1.1319 is <2.04523, which means that working capital turnover has no significant effect on financial performance through liquidity mediation. The analysis result also shows that the value 0.997 is <2.04523, which means that cash turnover has no significant effect on financial performance through liquidity mediation. Then it is found that the value 0.673 is > -2.04523, which means that cash turnover has no significant effect on financial performance through liquidity mediation. Then it is found that the liquidity is not intervening variable of the effect of working capital turnover, cash turnover and account receivable turnover on financial performance.

### **CONCLUSIONS AND RECOMMENDATIONS**

The working capital turnover has a negative and significant effect on liquidity; however, cash turnover and account receivable turnover do not have a significant effect on liquidity in the period before and after restructuring and revitalization in the construction services sector SOEs companies. The working capital turnover has a positive and significant effect on financial performance; however, cash turnover and account receivable turnover and liquidity have no significant effect on financial performance in the period before and after restructuring and revitalization the construction services sector SOEs companies. This study also found that liquidity was not an intervening variable of the effect of working capital turnover, cash turnover and account receivable turnover, cash turnover and account receivable turnover, cash turnover and account receivable turnover.

The value of R Square shows a relatively small value, meaning that the model framework developed in this study is still very potential to be developed, such as by replacing predictor variables of cash turnover and account receivable turnover with other variables or the

role of liquidity variables as intervening variables can also be replaced by other variables, for example using solvency ratio. Further researchers can also take companies in other sectors with more participation so that there are more observable data, so that the research results can be generalized more broadly.

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