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The Effect of Working Capital Management, Liquidity, and Leverage to SMEs Profitability in PEFINDO25 Index 2018-2021

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Abstract:
This study aims to examine and analyze the effect Number of Account Receivable, Cash Conversion Cycle, Current Ratio and Debt to Asset Ratio on NPM. The population in this study are companies listed on the PEFINDO-25 index during 2018-2021 which have annual financial reports. Sampling technique is using purposive sampling which produces a total sample of 20 companies for 4 years. Data analysis techniques used descriptive analysis, classical assumption test, and multiple linear regression analysis using the SPSS 25 program. The research data used secondary data obtained from the company's annual financial reports. The results of this study indicate that: 1) Number of Account Receivable, Cash Conversion Cycle, Current Ratio and Debt to Asset Ratio simultaneously NPM. 2) Number of Account Receivable has significant effect on NPM. 3) Cash Conversion Cycle partially has significant effect on NPM. 4) Current Ratio has significant effect on NPM. and 5) Debt to Asset Ratio has significant effect on NPM.

Key Word*: Profitability, number of account receivable, cash conversion cycle, current ratio, debt to asset ratio, and SME*

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I. Introduction

In this era, there are many new opportunities in doing business, especially in SMEs. SMEs are one of the main pillars of the national economy with an independent outlook that has great potential to improve welfare. According to data from kemenkopukm.go.id, there has been an increase in the growth of the number of SMEs in Indonesia by 1.99% small businesses and 7.89 medium-sized businesses. However, at the beginning of the COVID-19 pandemic in early 2020 there was a decrease in the number of SMEs to 61 million units. A decrease in income was also felt in 2020. Until 2021, there was a recovery in conditions for SME business actors. The Mandiri Institute survey results in 2021 noted that the condition of SMEs in the second quarter began to improve with 85% of respondents stating that the business had returned to normal. Today, companies and SMEs are emphasized to always prioritize competitive advantages in order to improve. Profitability is an indicator that a business has more value in business competition. If profitability is high, it reflects good business performance. Because the rate of return earned by the business is getting bigger.

In managing the company's operations in order to increase profitability, companies both large and small need funds to meet their capital needs, capital consists of fixed capital and working capital (Komarudin, 1981: 50). So that companies need to understand the importance of working capital management. more effective working capital management can increase the company's chances of achieving the required profit. The better the working capital turnover, the better the company's ability to obtain profitability. Working capital management (WCM) considers all operations that impact current assets and liabilities and so on liquidity. Efficient WCM is an important aspect of financial management policy and requires the ability to monitor the company's current assets and liabilities to meet short-term obligations while avoiding excessive investment in short-term assets.

In addition to working capital management factors, SME companies must pay attention to the liquidity of the company. Liquidity describes the availability of company resources to meet short-term cash (Wild, 2010: 241) which will show the extent of the company's ability to meet its short-term financial obligations. If the company's liquidity is high, the better the company will be in fulfilling its current obligations. Another consideration in the company's performance in the strategy of increasing profitability from sales is to assess the company's leverage. Leverage is used to show the company's ability to use assets or funds with fixed expenses with the aim of maximizing company profits. High leverage reflects the high risk faced and the greater the expected return.

The purpose of this study is to exemine whether the relationship between profitability and financial factors such as Working Capital Management, Liquidity, and Leverage in Indonesia's small medium eneterprises.

II. Material And Methods

This research is included in associative research (relationship), which is research that aims to determine the relationship between two or more variables. The type of relationship in this study is a causal relationship with the aim of finding a causal relationship (influence), namely the independent / free variable (X) on the dependent / dependent variable (Y) which is carried out on the basis of events that have occurred.

Study Design: This research is descriptive research with the aim of obtaining empirical evidence and testing the proposed hypothesis regarding the influence of the variables Number of Account Receivable (DSO), Cash conversion cycle (CCC), Current Ratio (CR) and Debt to Asset Ratio (DAR) as independent variables on Profitability (NPM) as the dependent variable.

Study Location: This research was conducted in Indonesia with the research object being SMEs in Indonesia in the PEFINDO-25 Index for 2018-2021.

Study Duration: February 2023- March 2023

Sample size calculation: that the population in this study are all SMEs listed in the PEFINDO25 Index in 2018-2021. And in this study the samples taken were SMEs listed in the PEFINDO25 Index based on the sample technique carried out, namely purposive sampling.

Sampling criteria:

The sample selection criteria were:

1. Companies that are included in the PEFINDO25 index calculation for at least 2 years or 4 times the announcement period in 4 years.
2. Companies that present 2018-2021 annual financial reports in full with notes to financial statements.
3. The company is not delisted until 2021.

Based on the criteria in the side technique above, the sample results were 20 companies out of 77 companies listed in the PEFINDO25 index for 2018-2021.

Procedure methodology

After written informed consent was obtained, a secondary data was used to collect the company's financial data. The financial statements used are 2018-2021 which have been audited.

This study uses multiple linear regression analysis methods with the following formula:

$$NPM = \propto_0 + \beta_1 DSO_1 + \beta_2 CCC_2 + \beta_3 CR_3 + \beta_4 FDAR_4 + \varepsilon$$

In above equation, NPM represents SMEs' profitability. NPM is a measure of profitability related to sales earned, net income per dollar of sales (Horne and Wachowicz 2005). Net profit margin is a measure of profit that compares earnings after interest and taxes with sales. The formula for measuring NPM is:

$$NPM = \frac{Net\ Profit}{Total\ Sales}$$

For independent variable, DSO represents Number of Account Receivable. DSO is a ratio that measures how long it takes to collect receivables in one period, or how many times the funds invested in these receivables circulate in one period. (Cashmere, 2012). Measuring Days of Account Receivable using the formula:

$$DSO = \frac{Account\ Receivable\ x\ 365}{Sales}$$

The second independent variable, CCC, represent Cash Conversion Cycle. CCC is the period of time required from the actual cash payment for purchases to the collection of receivables for the sale of goods / services (Horne & Wachowicz, 2013). According to Kariyoto (2018), the cash conversion cycle is how the company tries to use cash expenditures in accordance with the time objective. If the time spent is short then it means it is more effective, but if the time is slow then the efficiency will be reduced. Fast turnover and performance allows cash resources to be used for more productive activities. Measuring Cash Conversion Cycle using the formula:

$$CCC = DAR + DOI - DAP$$

The third independent variable, CR, represent Current Ratio. Current ratio is a ratio that measures the company's ability to pay short-term debt with current assets (Manduh, 2016: 75). This ratio provides an overview of the amount of the company's current asset availability when compared to current liabilities. The current ratio formula uses the following formula:

$$CR = \frac{Current\ Asset}{Current\ Liabilities}$$

The fourth independent variable, DAR, represent Debt to Asset Ratio. DAR is the use of a number of assets by the company followed by the obligation to incur fixed costs. This Debt Ratio is often also called the Total Debt to Total Assets Ratio with the formula:

$$DAR = \frac{Total\ Hutang}{Total\ Aset}$$

Statistical analysis

Data was analyzed using SPSS version 25. the F test is carried out as a model test and the t test as a partial test. The F test is calculated to test the regression model or the effect of all independent variables, namely X1, X2, X3, X4 simultaneously on the dependent variable. The F test is a goodness of fit test that must be performed in linear regression analysis. If the significance value is less than 0.05 then the independent variable can be used to predict the dependent variable. In simple linear regression analysis, the significance in the F test is the same as the significance in the t test (Ghozali, 2011: 177).

Partial hypothesis testing aims to determine the effect and significance of each independent variable on the dependent variable. This test is carried out with a t-test at a confidence level of 95%, meaning that there is an influence between the dependent variable and the independent variable with the degree of confidence used 5%.

III. Result

Table 1 : Descriptive Table

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
NPM	80	-127.32	40.00	8.2448	19.74455
DSO	80	0.80	446.40	73.6700	73.63869
CCC	80	-257.67	5309.16	240.6195	804.03322
CR	80	0.00	11.40	2.8765	2.46837
DAR	80	0.02	2.01	0.4446	0.30545
Valid N (listwise)	80				

Table 1 above is the result of descriptive test after the data is outlier. In variable Y1, NPM has a minimum value of -127.32 and a maximum value of 40 and an average value of 8.24. In the X1 DSO variable, the minimum value is 0.8 and the maximum value is 446.4. The average value is 73.67, which means that the average time it takes companies in PEFINDO25 to collect receivables is 74 days. In the X2 CCC variable, the minimum value is -257.6 and the maximum value is 5309.16. The average value is 240.6, which means that the cash turnover cycle carried out by the average company listed on PEFINDO25 is 241 days. In variable X3 CR, the minimum value is 0 and the maximum value is 11.4. The average value is 2.87 which means that the average SME company is able to pay its short-term financial obligations of 2.87 and based on this average value the company has a Current Asset value> 200% which means that most companies use a conservative approach. In variable X4 DAR the minimum value is 0.02 and the maximum value is 2.01. The average value is 0.44.

Model Fit Test

Table 2 : Model Fit Test

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6701.367	4	1675.342	17.238	.000[b]
	Residual	7289.211	75	97.189		
	Total	13990.578	79			

Table 2 shows that significancy test > 0.005. It means that the model is fit and This means that the model is suitable for use in research or in other words, this model is suitable for hypothesis testing.

Classic Assumption Test
Normality Test

Table 3 : Normality Test

		Unstandardized Residual
N		62
Normal Parameters[a,b]	0.0000000	0.0000000
	4.03789787	17.46481672
Most Extreme Differences	0.086	0.235
	0.080	0.145
	-0.086	-0.235
Test Statistic		0.086
Asymp. Sig. (2-tailed)		.200[c,d]

Based on the table above, it can be concluded that the data is normally distributed because the Asymp sig value shows a sig value of 0.200> 0.05 which means the data is normally distributed.

Multicolinearity Test

Table 4 : Multicolinearity Test

Coefficients[a]				
	Unstandardized Coefficients		Collinearity Statistics	
Model	B	Std. Error	Tolerance	VIF
1 (Constant)	14.424	2.730		
DSO	0.028	0.013	0.697	1.435
CCC	-0.024	0.008	0.543	1.842
CR	1.155	0.475	0.307	3.261
DAR	-15.423	3.883	0.388	2.575

Based on the multicollinearity table above, the tolerance value of each variable is> 0.100 and the VIF value is <10.00 so that based on this assumption, the data does not have multicollinearity symptoms.

Heteroskedasticity Test

Table 5 : Heteroskedasticity Table

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.921	0.005		2.921	0.005
DSO	0.349	0.729	0.054	0.349	0.729
CCC	0.136	0.892	0.024	0.136	0.892
CR	-0.904	0.370	-0.211	-0.904	0.370
DAR	-1.537	0.130	-0.319	-1.537	0.130

Based on the Glejser test above, it is known that the significance value for each variable> 0.05. Where the significance value for DSO is 0.729, CCC is 0.892, CR is 0.370, and DAR is 0.130 which indicates that the data does not experience symptoms of heteroscedasticity.

Autocorrelation Test

Table 6 : Autocorrelation Test

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.773	0.598	0.570	4.02528	2.047

The Durbin Watson value is 2.047. This value is greater than DU = 1.7288 and greater than the DL value = 1.4554. and has a value smaller than 4-Du = 2.2712 So it is concluded that DU < DW < 4-DU which means that there are no autocorrelation symptoms in the data.

Multiple Linear Regression Analysis

Table 7 : Multiple Linear Regression Analysis

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	14.424	2.730		5.284	0.000
DSO	0.028	0.013	0.211	2.097	0.040
CCC	-0.024	0.008	-0.341	-2.990	0.004
CR	1.155	0.475	0.369	2.432	0.018
DAR	-15.423	3.883	-0.535	-3.972	0.000

Based on the table7, the multiple linear regression equation obtained after outliers is :

$$NPM = 14.424 + 0.028DSO - 0.024\,CCC + 1.155\,CR - 15.423\,DAR$$

Based on the equation above, it can be seen that DSO has a value of 0.028 which means that every increase of 0.028 DSO will increase NPM by 0.028. The value of -0.02 in CCC indicates that every increase of 0.02 CCC will decrease NPM by 0.02. The CR value 1.155 means that every increase in CR of 1.155 will increase NPM by 1.155. The DAR value of -15.423 means that every increase in DAR of -15.423 will decrease NPM by 15.423 assuming other variables are constant.

Coefficient of Determination

Table 8 : Coefficient of Determination Table

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.773a	0.598	0.570	4.02528	2.047

The coefficient of determination (Adjusted R Square) is 0.570. Which means 57% Profitability (NPM) is influenced by Working capital consisting of DAR (X1) and CCC (X2), Liquidity consisting of CR (X3), and Liquidity consisting of DAR (X4). While the remaining 43% of profitability (NPM) is influenced by other variables outside the study.

Simultanous Test (F-Test)

Table 9 : F Table

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1374.503	4	343.626	21.208	.000[b]
	Residual	923.564	57	16.203		
	Total	2298.067	61			

The f-statistic test result is 21,208 with a significance value of F 0.000 <0.05, which means that DSO, CCC, CR, and DAR together have a significant effect on profitability (NPM) in SME companies listed on the PEFINDO25 Index.

Partial Test (t-Test)

Table 10 : t-Test Table

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	14.424	2.730		5.284	0.000
	DSO	0.028	0.013	0.211	2.097	0.040
	CCC	-0.024	0.008	-0.341	-2.990	0.004
	CR	1.155	0.475	0.369	2.432	0.018
	DAR	-15.423	3.883	-0.535	-3.972	0.000

Number of Account Receivable, Cash Conversion Cycle, Current ratio, and Debt to Asset Ratio have a significance value of < 0.05 which means that partially the DSO, CCC, CR and DAR variables have significant effect on NPM.

IV. Discussion

Based on the results of the F test, DSO, CCC, CR, and DAR together have an effect on NPM. This is in accordance with the hypothesis that has been formed which states that DSO, CCC, CR, and DAR have a joint effect on NPM. According to Irham Fahmi (2015: 103), the larger the company, the greater the need for funds to support working capital, and this is usually followed by a higher turnover, which is usually provided so that the working capital costs incurred are covered. Conceptually, the higher the sales revenue and the higher the working capital expenditure limit, the greater the profit (profitability) obtained by the company and vice versa.

The test results on the DSO variable show that DSO has a significant effect on NPM. Based on its direction, DSO has a positive effect on NPM. This shows that if companies collect their receivables too quickly, it is possible to lose sales and customers due to the short payment period with high customer demand.

The relationship between DSO and NPM contradicts corporate finance theory which states that the shorter the number of days receivable, the profitability will increase (Asaduzzaman & Chowdhury, 2014). This is because when the company is able to collect its receivables in a short time, it will increase the cash entering the company as a form of working capital investment that can be used in operational activities.

Cash Conversion Cycle (CCC) has a significant relationship with NPM. Based on its direction, CCC has a negative effect on NPM. This shows that if cash turnover slows down, it will affect the decrease in NPM. CCC is the length of funds embedded in the form of working capital. If the company is able to convert goods into cash in a short time, the working capital investment will be smaller, which means that the company can streamline its working capital in operational activities that can increase the company's profitability.

This is as stated by Shin and Soenan (1998) who stated that the effect of CCC on profitability is significantly negative. This theory is reinforced by research in 2015 by Rahimi et al. which states that there is a negative relationship between CCC and profitability. Profitability can increase due to the rapid turnover of cash flow so that cash can be utilized for operational activities and does not incur additional costs such as warehouse costs, rental costs, and expenses that arise if cash turnover slows down. Research by Miftahul Ulum (2017) shows

that CCC partially affects the NPM of Trade, Service, and Investment sector companies listed on the IDX for the 2012-2015 period.

Current ratio (CR) has a significant effect on NPM. Based on the direction of the correlation, CR has a positive effect on NPM. This shows that if the company's ability to pay short-term obligations increases or decreases, it will affect the increase or decrease in NPM profitability. This happens because when the company's ability to meet its short-term obligations is low, it can become a more serious liquidity problem. This problem can lead to forced sales of investments and other assets, and the most severe possibility leads to bankruptcy.

The results of this study are supported by the theory of Sartono (2011: 114) which states that the higher the current ratio, the greater the company's ability to meet short-term financial obligations. Thus, it can be seen that the company is in good condition and indicates that the company is able to generate high profits. In addition, the results of this study are in line with Sawir's theory (2015: 8) which states that low current assets result in high profits but high current assets result in a lot of idle funds that can minimize profits. However, the results of this study contradict research conducted by Safrani Rani (2021) which states that there is no relationship between current ratio and net profit margin.

The results showed that DAR has a partial relationship to NPM. Based on the direction of the correlation, it shows that DAR has a negative effect on NPM, which means that the greater the company is funded with debt, it can cause a decrease in profitability. This happens because a high proportion of leverage is more risky which is characterized by a greater cost of debt. So that companies that fund their assets using debt will cause a decrease in profitability.

The results of research on NPM are supported by Amelia & Gulo's research (2021) which shows that there is a significant negative relationship between DAR and Net to Profit Margin of Food and Beverage Industry Companies listed on the IDX. So that based on this research, the higher the level of the DAR ratio, the lower the NPM. A low debt ratio indicates that the company has more assets than liabilities, so the company is funded by equity not through debt.

V. Conclusion

Based on the results of data analysis and discussion that has been carried out in chapter four regarding Days of Account payable, Cash Conversion Cycle, Current ratio, and Debt to Asset Ratio on Profitability (Net Profit Margin) in small and medium-sized companies listed on PEFINDO25 for the period 2018-2021, the following conclusions can be drawn:

(1) All independent variables, namely Days of Account payable (DSO), Cash Conversion Cycle (CCC), Current ratio (CR), and Debt to Asset Ratio (DAR) together have an effect on Net Profit Margin (NPM), (2) The Days of Account Payable (DSO) variable partially has a significant effect on Net Profit Margin (NPM) in small and medium-sized companies listed on PEFINDO25 for the period 2018-2021, (3) The Cash Conversion Cycle (CCC) variable partially has a significant effect on the variable on Net Profit Margin (NPM) in small and medium-sized companies listed on PEFINDO25 for the 2018-2021 period, (4) The variable Current ratio (CR) partially has a significant effect on the Net Profit Margin (NPM) in small and medium-sized companies listed on PEFINDO25 for the 2018-2021 period, (5) The variable Debt to Asset Ratio (DAR) partially has a significant effect on Net Profit Margin (NPM) of small and medium-sized companies listed on PEFINDO25 for the 2018-2021 period, and (6) Small and medium-sized companies listed in the PEFINDO25 index on average use own capital as financing as measured by the debt to asset ratio and have good liquidity, namely> 200% measured using the current ratio.

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