Effect of Solvency, Current Ratio and Accounts Receivable Turnover on Profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 Period

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ABSTRACT

Industrial development is accompanied by advances in technology and information in Indonesia which make existing companies competitive. The purpose of this study is to determine effect of solvency, current ratio and accounts receivable turnover on profitability in Basic Industrial Companies and Chemicals listed on the Indonesia Stock Exchange 2015-2019 period. The quantitative approach that processes statistical data uses multiple linear regression. Research data collection techniques use documentation. The population of this study is 75 in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. The sample is 17 companies. The result is that solvency has no an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Current ratio has an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Accounts receivable turnover has an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Solvency, current ratio and accounts receivable turnover have an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

Keywords: Solvency, Current Ratio, Accounts Receivable Turnover, Profitability

INTRODUCTION

Industrial development is accompanied by advances in technology and information in Indonesia which make each company compete. This advancement of technology and information makes business people take advantage of the opportunity by implementing supply and trading in the capital market. This capital market is one of the platforms used by the company to meet its capital needs. From an investor's point of view, the capital market is one of the most effective means of placing funds for profit.

The company considers that the problem of profitability is more important regarding company profits, where companies that have large profits cannot reflect the company operating efficiently. The level of efficiency can be assessed by countering the profits measured using profitability. To assess the company's profitability by using solvency, current ratio and accounts receivable turnover.

Solvency is a measure of the company's capacity to meet its financial obligations, which is measured using the debt to equity ratio (DER) as the ratio of debt to equity of the company. This, the more abundant capital the company needs for its operational activities, thus reducing the loan required and reducing the obligation to pay interest expenses in the company. The increase in high debt can reduce the company's profit.

The current ratio is used to compare current assets to current liabilities. The greater the current assets cover current liabilities so that the company's profitability will be low.

Accounts receivable turnover is one of the ratios used to measure the length of time receivables were acquired during one cycle in one period. The faster the turnover of accounts receivable shows the more effective the company is when managing receivables. High accounts receivable turnover shows that fast funds bound in receivables can be disbursed into cash so that the company will be able to increase sales which in turn can increase profit or profitability.

Companies in the basic industry and chemistry are designated as objects of study in accordance with the consideration that this industrial sector is directly felt by all levels of the people, for example the fields of cement, wood porcelain, ceramics, which are not present so that the development process in Indonesia cannot take place well, It is closely related together with other investors so that investors are interested in placing their funds in this company.

Based on the description above can be presented in Table 1, total debt, current assets, receivable and net profit after tax in Basic Industry and Chemicals listed on the Indonesia Stock Exchange (IDX) for the 2015-2019 period are as follows:

Table 1. Total Debt, Current Assets, Receivable and Net Profit After Tax in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period

Issuer Code	Year	Total Debt	Current Assets	Receivable	Net Profit After Tax
EKAD	2015	97,730,178,889	284,055,202,739	70,048,850,011	47,040,256,456
	2016	110,503,822,983	337,644,083,636	81,737,871,362	90,685,821,530
	2017	133,949,920,707	413,617,087,456	91,479,657,638	76,195,665,729
	2018	128,684,953,153	461,472,621,715	104,243,059,292	74,045,187,763
	2019	115,690,798,743	486,522,278,448	103,423,034,288	77,402,572,552
SMGR	2015	10,712,320,531,000	10,538,703,910,000	3,543,839,969,000	4,525,441,038,000
	2016	13,652,504,525,000	10,373,158,827,000	3,837,918,210,000	4,535,036,823,000
	2017	18,524,450,664,000	13,801,818,533,000	4,885,666,314,000	2,043,025,914,000
	2018	18,168,521,000,000	16,091,024,000,000	5,786,215,000,000	3,085,704,000,000
	2019	43,915,143,000,000	16,658,531,000,000	6,489,861,000,000	2,371,233,000,000
CPIN	2015	12,123,488,000,000	12,013,294,000,000	2,998,307,000,000	1,832,598,000,000
	2016	10,047,751,000,000	11,817,645,000,000	2,316,015,000,000	2,251,813,000,000
	2017	8,819,768,000,000	11,720,730,000,000	2,359,678,000,000	2,496,787,000,000
	2018	8,253,944,000,000	14,097,959,000,000	2,777,650,000,000	4,551,485,000,000
	2019	8,281,441,000,000	13,297,718,000,000	3,043,491,000,000	3,632,174,000,000

Based on Table 1 above, the total debt of PT. Ekadharma International Tbk decreased from Rp133,949,920,707 (2017) to Rp128,684,953,153 (2018), while net income decreased from Rp76,195,665,729 (2017) to Rp74,045,187,763 (2018). This is not in line with the theory, that is, if total debt falls, net income will increase.

Current assets of PT. Semen Indonesia (Persero) Tbk increased from Rp10,373,158,827,000 (2016), Rp13,801,818,533,000 (2017), while net income decreased from Rp4,535,036,823,000 (2016) to Rp2,043,025,914,000 (2017). This is not in accordance with the theory, namely that current assets increase and net income will increase.

Receivables of PT. Charoen Pokphand Indonesia Tbk increased from Rp2,777,650,000,000 (2018) to Rp3,043,491,000,000 (2019), while net profit decreased from Rp4,551,485,000,000 (2018) to Rp3,632,174,000,000 (2019). This is not in line with the theory, namely that receivables increase, so net income increases.

LITERATURE REVIEW
Solvency

According to Hery (2017: 295), the solvency ratio is the ratio used to measure how far the company's assets are financed using debt.

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Current Ratio

According to Kasmir (2014:134-135), the current ratio (CR) is a ratio used to measure the company's ability to pay off short-term liabilities /debts that mature as soon as they are asked for.

$$Current\ Ratio = \frac{Current\ Ratio}{Current\ Debt}$$

Accounts Receivable Turnover

According to Sudana (2015:25) receivable turnover measures the turnover of accounts receivable when creating sales.

$$Receivable\ Turnover = \frac{Sales}{Receivable}$$

Profitability

According to Fahmi (2014:80), the profitability ratio is a ratio that measures the effectiveness of all management, which is shown along with the size of the level of profit obtained in relation to sales or investment.

$$ROA = \frac{Earning\ After\ Tax\ (EAT)}{Total\ Assets}$$

Effect of Solvency on Profitability

According to Raymond (2017:111) the greater the proportion of debt in the capital structure of a company, the higher the fixed costs and repayment commitments that arise. If the company uses more abundant debt than its own funds, the solvency will be even greater because the interest expense that must be borne is also going to rise high, and this will cause a company's profitability to fall.

Effect of Current Ratio on Profitability

According to Hantono (2015:22), a low current ratio is usually assumed to show the ongoing liquidation problem, on the contrary, a very high current ratio is also not good, because it shows an abundance of idle capital which in the end can reduce the company's profitability.

Effect of Accounts Receivable Turnover on Profitability

Tiong (2017:14), a high level of accounts receivable turnover wants to encourage the company to engage in operational activities, so that the company is able to maximize profits along with ROA. On the other hand, a low account receivable turnover will disrupt the company in its operational activities, so that the company is unable to maximize its profit and ROA.

Nuraeni and Salesti (2018:83), The high level of receivables and inventory turnover shows that the company is able to maximize its profitability or company profits.

RESEARCH METHODS
Population and Research Sample
Population

According to Kesumawati, et al (2017:11), population is a group of all objects or subjects that have special characteristics and then explored clearly and completely so they can be categorized.

The population of this study is 75 Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

Sample

According to Kesumawati, et al (2017:11), the sample is a component of the population that is said to represent the population in the study. The sample must be representative, the meaning is that the sample that is owned must be able to represent all the characteristics of the population.

Sampling can be done using the purposive sampling method, which means that the determination of the sample is based on the special consideration of the researcher.

This research sample must meet the criteria used, namely:
1. The Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period are 75 samples.

2. Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period were 22 samples.
3. Basic Industrial Companies and Chemicals that have no profit and do not distribute dividends for the 2015-2019 period are 36 samples.

The sample of research companies is 17 samples. A total sample of 17x5 years is equal to 85 samples.

Types of Research

This type of study is in the form of quantitative research. According to Sujarweni (2019:6) quantitative research is a type of study that creates findings that can be reached using statistical steps or other methods of quantification (measurement).

Data Collection Technique

The study data collection technique used documentation. The documents used are in the form of financial statements of the companies under study. According to Sujarweni (2019:75), document analysis refers more to concrete evidence. Together with this tool, we are persuaded to examine the content and files that can support our research studies.

Method of Analysis

The study data processing method, namely quantitative data, was processed using SPSS.

Hypothesis Testing
Multiple Linear Regression Analysis

The test method used is multiple regression, namely to determine the transformation of the independent variable on the dependent variable either individually or simultaneously. According to Arifin (2017:156), in multiple regression there are dependent variables as well as 2 or more independent variables. Multiple regression is widely used because there are

many variables that need to be studied in addition to being more relevant.

In order to know the impact of the dependent variable with the independent variable using a multiple linear regression formula, namely:

$$Y = a - b1x1 + b2x2 + b3x3$$

For this study, an explanation was obtained, namely:
Y=Profitability
a=Constant
b=coefficient of each variable
X1=Solvency
X2=Current Ratio
X3=Accounts Receivable Turnover
e=Percentage of Error (5%)

This study uses several hypothesis testing, namely:
1. Coefficient of Determination (R2)

According to Ghozali (2018:97), R^2 is useful for measuring the power of the model when describing the bound variance. If R^2 is getting bigger or closer to 1.

2. Simultaneous Test (F Test)

According to Hantono (2017:72-73) the F test is used to analyze whether the independent variables simultaneously have an effect on the dependent variable.

3. Partial Test (t test)

According to Hantono (2017:74-75), the t test is used to analyze whether the independent variables individually have an effect on the dependent variable.

RESULT AND DISCUSSION
Result
Multiple Linear Regression Analysis

Multiple linear regression analysis is used to predict the transformation (fluctuation) of the dependent variable which is described as 2 or more independent variables. The results of multiple regression analysis are seen in Table 2:

Table 2. Multiple Linear Regression Analysis Result

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	.045	.022		2.002	.049
	Solvency	-.057	.030	-.267	-1.922	.058
	Current Ratio	.010	.004	.371	2.670	.009
	Accounts Receivable Turnover	.002	.001	.273	3.258	.002
a. Dependent Variable: ROA						

$$ROA = 0.045 - 0.057\ Solvency + 0.010\ Current\ Ratio + 0.002\ Accounts\ Receivable\ Turnover + e$$

1. Constant 0.045 means solvency, current ratio and accounts receivable turnover are considered zero with return on assets increasing by 0.045.
2. Solvency -0.057 means an increase in solvency by one unit, assuming the current ratio and accounts receivable turnover are considered zero, the return on assets decreases by 0.057.
3. Current ratio of 0.010 means an increase in the current ratio of one unit with Accounts receivable turnover considered 0 until return on assets increases by 0.010.
4. Accounts receivable turnover 0.002 means an increase in unit receivable Turnover until return on assets increases 0.002.

Coefficient of Determination (R2)

R2 measures how much power the independent variable is able to describe the dependent variable.

Table 3. Coefficient of Determination (R^2) Result

Model Summary[b]				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.656[a]	.430	.409	.03268
a. Predictors: (Constant), Solvency, Current Ratio, Accounts Receivable Turnover				
b. Dependent Variable: ROA				

Adjusted R square is 0.409 with the effect of 40.9% on return on assets and the remaining 59.1% is influenced by other variables.

Simultaneous Test (F Test)

The F test is used to analyze the independent variable simultaneously impacting the dependent variable.

Table 4. Simultaneous Test (F Test) Result

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	.065	3	.022	20.391	.000[b]
	Residual	.086	81	.001		
	Total	.152	84			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Solvency, Current Ratio, Accounts Receivable Turnover						

Fcount=20.391, sig=0.000 and Ftable (85-4=81)=2.72. Fcount>Ftable, which is 20.391>2.72, it shows that H0 is rejected, Ha is accepted, indicated by solvency, current ratio and accounts receivable turnover have a significant impact on profitability in in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

Partial Test (t test)

The t test analyzes whether the independent variable individually impacts the dependent variable.

Table 5. Partial Test (t test) Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Coefficients[a]						
		B	Std. Error	Beta		
1	**(Constant)**	**.045**	**.022**		**2.002**	**.049**
	Solvency	-.057	.030	-.267	-1.922	.058
	Current Ratio	.010	.004	.371	2.670	.009
	Accounts Receivable Turnover	.002	.001	.273	3.258	.002
a. Dependent Variable: ROA						

1. Solvability tcount=-1.922, sig=0.058, ttable (85-3=82)=1.989, tcount>ttable, -1.922<-1,989 H0 accepted, Ha rejected, it is shown that solvency does not have a significant effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period

2. Current ratio tcount=2,670, sig=0.009, ttable (85-3=82)=1.989, tcount>ttable, 2,670>1,989 H0 rejected, H0 is rejected, it is shown that current ratio has a significant effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

3. Accounts receivable turnover tcount=3.258, sig=0.002, ttable (85-3=82)=1.989, tcount>ttable, 3.258>1.989 H0 rejected, Ha accepted, it is shown that accounts receivable turnover has a significant effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

DISCUSSION
Effect of Solvency on Profitability
The achievement of this study is that solvency does not have a significant impact on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. The results of the study are inconsistent with Raymond (2017:111). The greater the proportion of debt in the capital structure of a company, the higher the fixed expenses and the repayment commitments that arise. If the company uses more debt than its own capital, the solvency will be even greater because the interest expense that must be borne will also increase, and this will cause a company's profitability to fall.

The results of this study are in line with the study of Halin (2016) which explains, Partially there is no significant effect between DER and ROE.

Effect of Current Ratio on Profitability
The achievement of this study is that the current ratio has a significant impact on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. The results of this study are consistent with Hantono (2015:22), a low current ratio is usually assumed to show problems in liquidation, on the other hand, a very high CR is also not good, because it shows an abundance of idle capital which in the end can reduce the company's profitability.

The results of this study are in line with the studies of Riski, Lie, Jubi, and Ervina (2018) which stated that liquidity has a significant impact on profitability.

Effect of Accounts Receivable Turnover on Profitability
The results of this study show that accounts receivable turnover has a significant impact on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. The results of this study are consistent with Tiong (2017:14), a high level of accounts receivable turnover wants to support the company in operational activities, so that the company is able to maximize profits and ROA. As well as the reverse, the low receivables turnover rate will disturb the company during operational

activities, so that the company is unable to maximize its profit and ROA.

The results of this study are in line with the study of Naibaho and Rahayu (2014) which states that accounts receivable turnover has a significant impact on profitability.

CONCLUSION

In accordance with the results of the study, so that they can be categorized, namely: The result is that solvency has no an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Current ratio has an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Accounts receivable turnover has an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period. Solvency, current ratio and accounts receivable turnover have an effect on profitability in Basic Industrial Companies and Chemicals Listed on the Indonesia Stock Exchange 2015-2019 period.

SUGGESTION

In accordance with this conclusion a number of recommendations can be given:
1. For companies, the results of this study should be able to be used in order to increase the profitability it gets.
2. For the following authors, the results of this study can be used as a reference for examining the factors affecting the profitability of companies other than the basic and chemical industries.
3. For Universitas Prima Indonesia, the results of this study are able to enrich scientific works in libraries.

REFERENCES

1. Arifin, J. (2017). SPSS 24 untuk Penelitian dan Skripsi. Jakarta: PT. Gramedia.
2. Fahmi, I. (2014). Pengantar Manajemen Keuangan. Bandung: Penerbit Alfabeta.
3. Ghozali, I. (2018). Aplikasi Analisis Multivariate dengan Program IBM SPSS 25. Jakarta: Penerbit Universitas Diponegoro.
4. Halin, H. (2016). Pengaruh Rasio Lancar dan Rasio Hutang Terhadap Profitabilitas pada Industri Telekomunikasi yang Listing di Bursa Efek Indonesia. Jurnal Ilmiah Ekonomi Global Masa Kini. Vol. 7 (1) Desember 2016. ISSN PRINT: 2089-6018. Universitas Indo Global Mandiri.
5. Hantono. (2015). Pengaruh Current Ratio dan Debt To Equity Ratio Terhadap Profitabilitas Pada Perusahaan Manufaktur Sektor Logam dan Sejenisnya yang Terdaftar di Bursa Efek Indonesia Periode 2009 - 2013. Jurnal Wira Ekonomi Mikroskil. Vol. 5 (1), April 2015. Universitas Prima Indonesia.
6. Hery. (2017). Teori Akuntansi Pendekatan Konsep dan Analisis. Jakarta: Penerbit PT Grasindo.
7. Kasmir. (2014). .Analisis Laporan Keuangan. Cetakan Keempat. Jakarta: Penerbit Rajagrafindo Persada.
8. Kesumawati, N., A. M. Retta & N. Sari. (2017). Pengantar Statistika Penelitian. Depok: Penerbit RajaGrafindo Persada.
9. Nuraeni, D. & Jayana S. (2018). Pengaruh Tingkat Perputaran Piutang dan Tingkat Perputaran Persediaan Terhadap Rentabilitas (Studi Kasus pada PT. ABM Otomotif Batam). Measurement, Vol. 12 (1) : 82-96. Universitas Riau Kepulauan Batam
10. Raymond. (2017). Pengaruh Likuiditas dan Solvabilitas Terhadap Profitabilitas pada PT Indosat Tbk. Universitas Putera Batam.
11. Riski, K. M. (2018). Pengaruh Likuiditas dan Rasio Aktivitas Terhadap Profitabilitas pada Perusahaan Sub Sektor Keramik, Porselen, dan Kaca yang Terdaftar di Bursa Efek Indonesia. Jurnal Sultanist. ISSN : 2338-4328 Vol. 6 (1), JUNI 2018.

12. Sudana, I M. (2015). Teori & Praktik Manajemen Keuangan Perusahaan. Jakarta: Penerbit Erlangga
13. Sujarweni, V. W. (2019). Metodologi Penelitian Lengkap, Praktis dan Mudah Dipahami. Yogyakarta: Pustaka Baru Press.
14. Tiong, P. (2017). Pengaruh Perputaran Piutang Terhadap Profitabilitas pada Perusahaan PT Mitra Phinastikamustika Tbk. Available at: https://journal.stieamkop.ac.id/index.php /seiko. VOL. 1 (1), 2017 (July-December). STIE AMKOP Makassar.

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