

WORKING CAPITAL EFFICIENCY, LIQUIDITY, AND SOLVENCY ON PROFITABILITY OF INDONESIAN STATE-PRIVATE BANK

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Abstract: Banks are the largest service companies in Indonesia, based on data from the Financial Services Authority, which greatly influences market fluctuations in the services sector. The components used to determine the level of strength and capability of banking institutions include financial ratios related to profitability. This study aims to analyze the efficiency of working capital, liquidity, and solvency on the profitability of Indonesian BUMN (state-private enterprise) banks. This study was conducted using a quantitative approach. This study employed data from all financial reports published on the website of the Indonesia Stock Exchange and the website of the research object banks. While the sample used was limited to 8 years of financial reports, from 2014 to 2021, the collected data was tested with multiple regression using SPSS v. 25. This study found that working capital efficiency and liquidity did not affect profitability, while solvency did. Furthermore, when analyzed simultaneously, operating capital efficiency, liquidity, and solvency influence profitability.

Keywords: Working Capital, Liquidity, Solvency, Profitability

Abstrak: Bank merupakan perusahaan jasa terbesar di Indonesia berdasarkan data Otoritas Jasa Keuangan yang sangat mempengaruhi fluktuasi pasar di bidang jasa. Komponen yang dijadikan sebagai pengukuran dalam menentukan tingkat kekuatan dan kemampuan lembaga perbankan diantaranya rasio keuangan yang terkait dengan profitabilitas. Tujuan penelitian ini adalah menganalisis Efisiensi Modal Kerja, Liquidity, dan Solvency terhadap Profitability Bank BUMN Indonesia. Pendekatan yang digunakan dalam penelitian ini yakni pendekatan kuantitatif. Populasi data yang digunakan yakni seluruh laporan keuangan yang dipublikasikan di website Bursa Efek Indonesia dan website bank objek penelitian. Sedangkan sampelnya adalah laporan keuangan yang dibatasi 8 tahun yakni 2014 sampai 2021. Teknik pengumpulan data dilakukan melalui laporan keuangan yang di download dari website bank objek penelitian, kemudian pengujian data dengan regresi ganda dengan menggunakan SPSS v. 25. Hasil dari penelitian ini menunjukkan bahwa efisiensi modal kerja dan liquidity tidak memberikan pengaruh terhadap profitability, sementara solvency memberikan pengaruh terhadap profitability. Kemudian bila dianalisis secara simultan efisiensi modal kerja, likuiditas dan solvency memberikan pengaruh terhadap profitability.

Kata Kunci: Modal Kerja, Liquidity, Solvency, Profitability

INTRODUCTION

State-private banks are service and financial industries that can profitably manage their finances. However, the ability to improve performance as measured by the level of profitability is not only influenced by internal factors but also by external factors. Internal factors; (1) the bank's ability which is supported by sufficient capital. Thepany's capital must be adequate to support short-term and long-term operational costs, and short-term operational costs mean that operating costs are carried out within under one year, while long-term operational costs are financing for operational costs over a period of more than one year. (Fatimah, 2014) ; (2) the ability of a bank to manage its performance. Financial ratios, including working capital efficiency, liquidity, solvency, and profitability, can measure financial performance.

Working capital efficiency is a policy that focuses on a company's ability to make a profit (Fatimah, 2014) ; (Kumara & Saputra, 2014). Working capital management is needed by a company because it can help companies improve their performance (WI Sari et al., 2021). The main target of working capital management is to guarantee the company's ongoing operations and affect the profitability level. Companies that are able to maintain working capital, the company can be sustainable in running their business (Saerang, 2014). Another thing that can affect profitability is the level of liquidity.

Liquidity is the ability of a company to pay all of its obligations, and the liquidity ratio is used as a ratio to see a company's ability to use its current assets (Sadiyah & Priyadi, 2015; Tabe, 2022). When a company cannot monitor its liquidity level, one day, it will experience problems in asset management. The instrument used to measure the level of liquidity is to compare current assets with current liabilities (KAN Sari & Sudjarni, 2015). Thus, the total assets must exceed the current liabilities because current assets can be relied upon to pay short-term debts or under one-year-old (WI Sari et al., 2021). Therefore, liquidity analysis is needed by both large companies and small companies, where this ratio can predict profitability. In addition to the liquidity ratio, the solvency ratio also allows for predicting profitability.

Solvency is the company's ability to pay its obligations using its assets. When a company has a greater ratio than its assets, it is likely that the company will experience high risk (Luthfiana, 2018). It means that the company that has high debt means that the company has a cost burden by paying interest, so the company needs help increasing its profitability.

Apart from the internal factors that have been described that can increase profitability, there are also external factors, including investor confidence, customer trust, product innovation, etc. Investor confidence in the company is very necessary because the source of capital must always be maintained sustainably. Of the several factors, this study is only focused on internal factors that can increase profitability.

Several factors have been described above as factors that can affect profitability. Previous researchers have widely discussed these factors. However, they still need to be carried out in banking industry companies that focus on state

banks, where state banks have different funding sources, namely, the government is involved as the owner of capital or shares. , the argument is a novelty in this study. Based on this, this study answers several things (a) does the efficiency of working capital have an effect on profitability; (b) whether liquidity has an effect on profitability; (c) whether solvency has an effect on profitability.

THEORETICAL REVIEW

Grand Theory

The relationship between several variables related to company performance, the relevant basic theory is signaling *theory*. *The signaling theory* that was first discovered by Spence in 1972 explained that in the labor market, there is always asymmetric information, so Spence created a signaling criterion to be able to strengthen decision-making in recruiting workers in companies. Wolk's (2001) Signal theory explains how a condition occurs within the company internally so that it will provide information to outsiders as a basis for decision-making.

Working Capital Efficiency Concept Definition

Working capital is an investment in the form of current assets, which can be cash and accounts in the current assets group (Sutopo & Fajria, 2015). Working capital is also interpreted as an asset that is invested and experiences turnover so that it changes form to another form for company operations (Aslina, 2021). Working capital is the overall value in the current assets group, which is positioned as an item that can experience changes quickly. (Kristanto et al., 2020) , while efficiency in using working capital is the ability of a company to utilize working capital to increase company value (Munandar et al., 2019). The definition can be concluded that working capital is the value invested in the current assets group used for company operations, where these current assets have the ability to change form in a short period of time.

Sources of working capital come from internal and external companies. The company's internal source of working capital, namely working capital formed from the company itself in the form of (1) profit that is not distributed to shareholders, this profit is profit from the previous year and the current year, which is not distributed in the form of dividends; (2) depreciation. This depreciation comes from asset depreciation which depends on the use of the depreciation method. While working capital from external sources can be in the form of (1) capital from outside the company, which is temporary with debt status; (2) company owner capital that does not have a maturity period (Saragih, 2018). Working capital can be measured by comparing total sales with *working capital* (Zul Safar, 2020)

$$WTC = \frac{Sales}{Current Liabilities} \times 100\%$$

Definition of the concept of liquidity

Liquidity is the company's ability to pay off its short-term debt with current assets when billed (KAN Sari & Sudjarni, 2015). A liquid company is stated that the company can operate correctly. A good company size can be seen from its liquidity

level (Lestari et al., 2017). Liquidity can be measured by using its total current assets compared to its total current liabilities as research (Natalia & Jonnardi, 2022).

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}} \times 100\%$$

Definition of Solvency Concept

Solvability is the ratio to measure the ability of assets in a company which is debt financing, or the ratio to measure the ability of the debt burden borne by the company to fulfill assets (Susilawati, 2012). This ratio can see how much a company can meet long-term debt (Luthfiana, 2018).

The solvency ratio uses assets intended to cover and pay fixed free. And it shows the proportion of the use of debt in investment financing (Nuryanto et al., 2014). The solvency ratio can also measure liquidity in a company's long term that focuses on the balance sheet on the right side (Awaloedin et al., 2020). Solvability can be measured by comparing total debt with equity as research (Nuryanto et al., 2014)

$$ROE = \frac{\text{Total debt}}{\text{Total equity}} \times 100\%$$

Profitability Concept Definition

Profitability is the ability of a company to earn profit in one period (Hermuningsih, 2012). Company profit is significant because it is an assessment and measurement of company performance, which indicates that if the profit earned by the company is high, it can be said that the company is in a good position. And so should if a company with low profits is considered not good (Hermuningsih, 2008).

The profitability ratio is an analysis of a financial statement, namely a balance sheet. When a financial balance is published daily, it describes the total assets, total debt, and total capital and shows the company's financial position in a certain period. At the same time, the profit and loss report is a financial report that describes the total income and total operational costs, operations, and net income for a period.

Profitability ratios can be measured by comparing net income to total assets as research conducted by (Luthfiana, 2018)

$$ROI = \frac{\text{Net Income}}{\text{Total asset}} \times 100\%$$

Relationship between variables and hypothesis development Effect of Working Capital Efficiency on Profitability

Working capital efficiency proxied by *Working Capital Turnover*. When the company's working capital has increased, the funds sourced as operational activities can be covered with sales proceeds. However, if sales decrease, various unforeseen costs arise, affecting profitability (Wijaya & Isnani, 2019). As research by Riyanto *et al.* (2019) reveals, the efficiency of working capital influences profitability. The meaning signal theory also explains that if capital turnover is fast, it can provide a signal that profitability is also higher. The formulation of the first hypothesis is as follows:

H1 = Efficiency of Working Capital influences profitability

Effect of Liquidity on Profitability

Liquidity is proxied by *the current ratio*. The higher *the current ratio*, the more likely the company is to be able to pay off its current debts (Tabe, 2017). As research (Hadiningrat et al., 2017) states that liquidity influences profitability, the signal given to outsiders is that companies with high *current ratios have high profitability*. The formulation of the second hypothesis is as follows:

H2 = Liquidity influences profitability

Effect of Solvency on Profitability

Solvability is proxied by *the debt-to-equity ratio*. *The debt-to-equity ratio* compares the company's total liabilities to its total equity. The higher the equity ratio, the higher the company's solvency. As with research (Chandra et al., 2021) that *the Debt to Equity Ratio* contributes to profitability, the signal theory applies that when a company has sufficient equity, it can overcome its solvency. The formulation of the third hypothesis is:

H3 = solvency influences profitability

RESEARCH METHODS

Research Approach

This study uses a quantitative research type approach, where this research is viewed from the paradigm of giving pressure to test theories with various measurements on each variable used, then performing analysis with data and statistical procedures.

Population and Sample

The population of this study is the financial statements of state-private banks consisting of BRI, BNI, Bank Mandiri, and BTN. Meanwhile, the sample is limited to the financial statements of the last eight years, from 2014 to 2021.

Data collection technique

Data collection techniques are carried out through financial reports downloaded from the IDX website (www.idx.co.id) and the website of the research object bank. The data focused on financial ratios, which are the measurement ratios in each variable used, namely working capital, liquidity, solvency, and profitability ratios.

Data analysis method

Data analysis was carried out to test the hypothesis. Hypothesis testing is done by multiple regression with statistical testing with the help of *Statistical Product and Service Solutions* SPSS version 25, and hypothesis testing is carried out after the classical assumption test to ensure that a regression equation has an unbiased estimate.

RESULTS AND DISCUSSION

Research result

Normality Test

The target of this test is to see whether the data distribution is normal.

One Sample Kolmogorov Smirnov Test		
		Unstandardized Residuals
N		32
Normality	Means	.000000
Parameters ^{a,b}	Deviation. Std	200.27086086
Most Extreme Difference	Absolute	.090
	Positive	.064
	Negative	-.091
Statistics Test		.090
Symp. Sig. (2-tailed)		.200 ^{c,d}

The table above has a significant value of 0.200, greater than 0.05, so the data is typically distributed.

Linearity Test

The target of this test is to see whether or not each independent variable is linear with the dependent variable.

ANOVA Table							
			Sum of Squares	df	Mean Square	F	Sig.
Profitability* Liquidity	Between Groups	(Combined)	15,219	17	.895	.696	.763
		Linearity	1,411	1	1,411	1,098	.313
		Deviation from Linearity	13,807	16	.863	.671	.779
Within Groups			18,000	14	1,286		
Total			33,219	31			

The table above has a significance value of 0.779 > 0.05, so there is a linear relationship between the variable Liquidity and Profitability .

Multicollinearity Test

The target of this test is to find out which independent variables have a close correlation with the others

Model		Unstandardized Coefficients		Sig.	Collinearity Statistics	
		B	std. Error		tolerance	VIF
1	(Constant)	3027	1,057	.008		
	Efficiency_Capital_Work	.001	.001	.521	.820	1.220
	Liquidity	.002	.006	.691	.832	1.202
	Solvability	-.002	.001	.003	.843	1,186

a. Dependent Variable: Profitability

The table above shows the independent variables that are free from the multicollinearity problem, where the variable is greater than the tolerance of 0.10, and all variables are smaller than 10.00.

Autocorrelation Test

Summary Model ^b					
Model	R	R Square	Adjusted R Square	std. The error of the Estimate	Durbin-Watson
1	.555	.308	.234	.906	1,274

a. Predictors: (Constant), Solvability, Liquidity, Efficiency_Capital_Work

b. Dependent Variable: Profitability

the Autocorrelation test shows that the Durbin Watson value (d) is 1.274, which is greater than the upper limit (du), which is 1.650, and less than (4-du) 4-1.650 = 1.646. It is concluded that there are no symptoms of autocorrelation.

T-test (partial test)

Coefficients ^a						
Model	Standardized Coefficients	Q	Sig.	Collinearity Statistics		
	Betas			tolerance	VIF	
1	(Constant)	2,865	008			
	Efficiency_Capital_Work	.113	.650	.521	.820	1220
	Liquidity	.069	.401	.691	.832	1.202
	Solvability	-.560	-3,273	003	.843	1,186

1. Working Capital Efficiency t count = 0.650 significant value 0.521 greater than 0.05, then working capital efficiency does not affect profitability.
2. Liquidity t count = 0.401 significant value 0.691 greater than 0.05, then liquidity does not affect profitability
3. Solvability t count = - 3.2 73 significant value 0.003 less than 0.05, so solvency has an influence on profitability

F test (simultaneous test)

ANOVA ^a					
Model	df	MeanSquare	F	Sig.	
1	Regression	3	3,411	4.156	.015 ^b
	residual	28	.821		
	Total	31			

The table above F count = 4, 156 significant value of 0.01 less than 0.05, then the Efficiency of Working Capital, Liquidity, and Solvency influence profitability simultaneously.

Discussion

Working Capital Efficiency Against Profitability

Working capital efficiency t test table where t count = 0.650 significant value 0.521 is greater than 0.05, then Working Capital Efficiency does not affect profitability. It means that the increase and decrease in the working capital efficiency of state-private banks is fine with profitability. Why?

First, working capital efficiency has increased, so it is challenging to increase profitability. As research conducted (Marantika, 2012) revealed that if a company determines a large working capital, it allows the level of liquidity to be maintained, but the opportunity to earn profits decreases and ultimately does not have an impact on profitability. Therefore, when connected with the signal theory, it can be stated that the theory has not been tested in assessing the efficiency of working capital with profitability.

Second, according to data frequency distribution calculations from 2014 – 2021, the scale 201 – 300 and 301 – 400 show an average of 25%. Even on a scale of 501 and above, it shows an average of 50%. The scale of the sales comparison divided (Current Assets-Current Liabilities) means that the scale reaches 5:1.

Liquidity Against Profitability

Liquidity t test table where t count = 0, 401 significant value 0, 691 greater than 0,05, then liquidity has no effect on *profitability*. It means that increases and decreases in liquidity do not affect profitability. Why? First, the management of current assets by state-private banks is not optimal, so some assets are not productive. With the existence of non-productive assets, the profits obtained by the bank can be reduced. Hadiningrat et al. (2017) revealed that using assets that are not optimal means that companies do not get maximum profits. The meaning of the signal theory is that higher the liquidity, the greater the guarantee of profitability does not apply. Second, the size of the company's liquidity level is independent of the profitability of state-private banks. So if the company experiences an increase in liquidity by one unit, the profitability that the company will receive will remain the same.

Solvability Towards Profitability

Test the hypothesis of the solvency t-test table where t count = -3.273 significant value 0.003 smaller than 0.05, so solvency has an influence on profitability. It means that when solvency increases, profitability also increases. Conversely, when solvency decreases, profitability also decreases. Several arguments support this finding.

Banks depend on loan funds to meet their funding sources. In general, state-private banks use funds from external sources or loans and then the rest or part of savings funds so that the size of the company's debt greatly affects the profitability obtained by the bank, so in increasing the profitability of the company, it is necessary to continue to increase the amount of its debt, because where solvency has

an impact on profitability state-private banks. In their research, Chandra et al. (2021) state that using high debt can increase solvency, but companies also need to maintain the risk of paying higher interest expenses. Therefore, the application of the signal theory is that the greater the source of funding, the profitability of the company continues to be binding.

The efficiency of Working Capital, Liquidity, and Solvency on Profitability

is carried out to answer the effect simultaneously. It can be seen that the value of f count = 4.156 with a significant level value of $0.015 < 0.05$. It means that working capital efficiency, liquidity, and solvency simultaneously influence profitability.

CLOSING

The conclusion of this study shows that the efficiency of working capital has no effect on profitability because it is experiencing a dilemma if a company determines a large working capital, it allows the level of liquidity to be maintained, but the opportunity to earn decreased profits ultimately does not have an impact on profitability. Liquidity also has no effect on profitability because there are indications that the management of current assets by state-private banks is not optimal, and assets that have not yet been used are still unemployed. Meanwhile, solvency significantly influences profitability because state-private banks depend on loan funds to fulfill their capital sources as the function of banks which generally collect funds from third parties to be channeled back to the public.

This research implies that state-private banks should improve capital management work efficiently so that the bank can achieve the profits Which are wanted, as well as be capable of increasing profitability significantly and must reduce idle assets so that they do not become a burden that can reduce company profits. Furthermore, companies must maintain a level of solvency because it is proven that increasing the portion of funding sources through debt can have an impact on increasing profitability. This research can be developed by increasing the number of other independent variables, for example, by looking at the soundness of a bank in terms of the capital sector and extending the research period.

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