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Analysis of Liquidity, Solvency, and Working Capital Turnover: Implications for Company Profitability in the Digital Era

Agus Fuadi[1*], Dian Sulistyorini Wulandari[2], Astrya Nurhasan [3]
Universitas Pelita Bangsa[123], Bekasi, Indonesia
agus.fuadi@pelitabangsa.ac.id[1], diansulistyorini@pelitabangsa.ac.id[2], astryanurhasan644@gmail.com[3]

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Abstract
This study investigates the impact of liquidity, solvency, and working capital turnover on profitability among manufacturing companies in the consumer goods sector for the 2019-2022 period. The research utilized a sample of 50 companies based on financial reports from IDX. Using purposive sampling with specific criteria, the final sample included 108 companies. The data was analyzed using multiple linear regression, processed with SPSS 25, following classic assumption tests for normality, multicollinearity, autocorrelation, and heteroscedasticity. The analysis reveals that liquidity and working capital turnover do not significantly affect profitability, while solvency significantly impacts profitability. Overall, liquidity, solvency, and working capital turnover together significantly affect profitability.

Abstrak
Penelitian ini bertujuan untuk mengetahui pengaruh Likuiditas, solvabilitas dan perputaran modal kerja terhadap profitabilitas pada perushaan manufaktur sektor industri barang konsumsi periode 2019-2022. Dalam penelitian ini, sample yang digunakan sebanyak 50 perusahaan. Data yang digunakan berupa laporan keuangan yang terdaftar di BEI. Metode pengambilan sampel yang digunakan adalah *purposive sampling*, dengan kriteria yang telah ditentukan, sehingga diperoleh sampel sebanyak 108 sampel. Teknik analisis data menggunakan analisis regresi linier berganda dan diolah menggunakan SPSS 25 setelah melewati uji asumsi klasik yang terdiri dari uji normalitas, uji multikolinieritas, uji autokorelasi dan uji heteroskedastisitas. Hasil analisi ini menunjukn bahwa Likuiditas tidak berpengaruh signifikan terhadap Profitabilitas, Solvabilitas berpengaruh signifikan tehadap Profitabilitas, dan Perputaran Modal Kerja Tidak berpengaruh signifikan terhadap Profitabilitas, Likuiditas, Solvabilitas dan Perputaran Modal kerja berpengaruh Signifikan Terhadap Profitabilitas .

Kata Kunci : Likuiditas, Solvabilitas, Perputaran Modal Kerja, Profitabilitas

INTRODUCTION

The progressive development of the economy and the business world has created intense competition for entrepreneurs. This increasingly tight competition demands that companies enhance their performance. Typically, every company has a primary long-term goal of increasing the wealth of its owners or shareholders by improving the company's profitability (Cahyani, 2020). The achievement of this goal is determined by performance and forms the basis for subsequent management decision-making. The extent to which a company's operational performance aligns with planned objectives is crucial. If a company fails to generate the planned profit, it will impact the company's management, worsen its performance, and ultimately lead to the company's closure (Anissa, 2019).

The consumer goods industry sector is one of the sectors with a crucial role in stimulating national economic growth due to the increasing needs of the Indonesian population. This sector consists of five sub-sectors: food and beverages, tobacco, pharmaceuticals, cosmetics and household goods, and household appliances. This indicates that the prospects for consumer goods manufacturing companies remain promising for the coming years, as public needs are closely tied to the products produced by manufacturing companies in this sector. This is why the researcher has chosen the consumer goods industry sector as the object of study.

The graph below shows the fluctuations in profit levels of consumer goods manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2022. The graph indicates variations from year to year for each company.

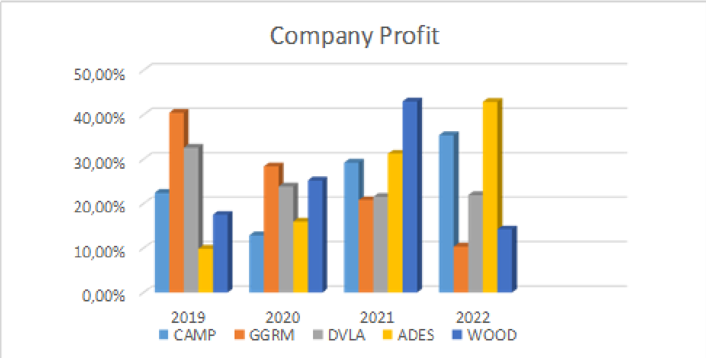

Figure 1: Company Profit Graph for the Period 2019-2022
Source: www.idx.com

Based on Figure 1.1 above, it can be seen that the company with the highest profit in 2019 was PT Gudang Garam Tbk. (GGRM) with a percentage of 40.43%, and the lowest was PT Akasha Wira International Tbk. (ADES) with a percentage of 9.86%. In 2020, the company with the highest profit was PT Gudang Garam Tbk. (GGRM) with a percentage of 28.42%, and the lowest was PT Campina Ice Cream Industry Tbk. (CAMP) with a percentage of 12.87%. In 2021, the company with the highest profit was PT Integra Indocabinet Tbk. (WOOD) with a percentage of 43.00%, and the lowest was PT Gudang Garam Tbk. (GGRM) with a percentage of 20.83%. In 2022, the company with the highest profit was PT Akasha Wira International Tbk. (ADES) with a percentage of 42.92%, and the lowest was PT Gudang Garam Tbk. (GGRM) with a percentage of 10.33%.

If a company experiences a decline, it must have funds to support its operations to achieve maximum profit. Funds can be obtained from equity, creditors, or investors. To attract creditors and investors, it is necessary to present financial statements showing good profit growth (Wulandari & Anjelika, 2021). Financial statements are also useful as a communication tool related to financial data and the company's business operations, allowing users to make economic decisions and hold management accountable for the company's condition when using relied-upon resources (Dewi & Hernawati, 2023).

Profitability itself can be defined as a company's ability to generate profit over a certain period. Profitability is often used as a measure of company performance; if a company's revenue is high, it indicates good performance, and vice versa. High profit indicates good performance and vice versa (Yulianti & Wulandari, 2024). A company's profit not only serves as an indicator of the company's ability to meet its obligations to shareholders but also reflects the creation of company value, providing insights into the company's prospects. Profit is also often compared with other financial terms such as sales, assets, and equity. This comparison is known as the profitability ratio. A company's ability to remain competitive with other companies implies its ability to improve profitability (Sari & Hidayat, 2017).

According to Sukadana & Triaryati (2018), every company's operational activities require resources, including capital, whether working capital such as cash, receivables, and inventory, or fixed capital such as fixed assets. The level of profitability can reflect the company's performance based on its ability to generate profit. Additionally, profit plays a crucial role in determining a company's success and management decision-making. It highlights liquidity, solvency, and working capital turnover about the company's profitability.

Factors affecting profitability include liquidity. Liquidity refers to a company's ability to meet its short-term obligations. One factor determining the success of a business is liquidity, which shows a company's ability to meet its financial obligations that are due soon or its ability to meet its financial obligations when demanded. Liquidity can be measured by the current ratio. The higher the current ratio, the better the company's ability to fulfill, pay, and settle its short-term financial obligations. Short-term assets used to meet short-term obligations include working capital, securities, receivables, and inventory S. W. Sari & Hidayat (2017). Research related to liquidity by (Suwandi et al., 2019) and Pitoyo & Lestari (2018) shows that liquidity does not significantly affect profitability.

Another factor affecting profitability is solvency. According to Abrori (2019), solvency indicates a company's ability to meet all its obligations, both short-term and long-term, to ensure the company functions effectively. Higher debt levels mean higher company debt. Thus, a company with high solvency faces a higher risk of losses. Research related to solvency by Rizki (2019) indicates that solvency does not significantly impact profitability. Meanwhile, Cahyani & Sitohang (2020) show that solvency has a negative and insignificant effect on profitability, whereas Sari et al., (2020) indicate that solvency has a negative and significant effect on profitability.

Another factor affecting profitability is working capital turnover. Working capital turnover always involves the company's operational processes, making effective working capital management crucial. Essentially, the working capital cycle is closely related to company performance or profitability. A company's profitability can be calculated using profitability ratios. This ratio provides an overview of management efficiency. The higher the profit, the better, as it indicates growing wealth Rahayu et al., (2021). However, Maming (2019) shows that working capital turnover has an insignificant effect on profitability, while Anissa (2019) states that working capital turnover has a significant positive effect on profitability.

RESEARCH HYPOTHESIS

Liquidity on Profitability

Companies with high liquidity levels avoid the risk of failing to meet their short-term liabilities. Companies with high liquidity will influence the profits they generate. Companies with high liquidity are more likely to pay cash dividends, which encourages investors to invest in them. Higher capital levels reduce a company's debt, which reduces the interest expenses the company has to pay, in turn increasing profits, although the company also pays higher taxes (Sari & Hidayat, 2017). Based on the above explanation, the hypothesis proposed here is:

H1: Liquidity Positively Affects Profitability.

Solvency on Profitability

A company that can demonstrate the ability to fulfill its long-term obligations. This ratio represents the company's debt relative to its capital and assets. This ratio can be used to identify how much of a company is financed by debt or external parties compared to the company's capacity, represented by equity. Solvency can show how far a company is funded by debt or external parties relative to the company's ability, as defined by capital. It states that solvency affects profitability (Cahyani, 2020). According to (Rizki, 2019), this ratio is used to measure the company's ability to pay off its debt. In its formula, it can be seen that this ratio shows how much of a company's funding is financed by debt compared to the total assets the company owns. Therefore, based on the above explanation, the hypothesis proposed here is:

H2: Solvency Positively Affects Profitability.

Working Capital Turnover on Profitability

There is a close relationship between sales and working capital. When sales volume increases, investments in inventory and receivables also increase, which means an increase in working capital to test the efficiency of working capital utilization. Researchers can use working capital turnover. The working capital turnover (WCT) ratio is an important figure that shows the effectiveness of working capital in generating sales (Maming, 2019).

The relationship between working capital turnover and profitability is seen in how a company can handle its working capital turnover. If the working capital turnover period is shorter, the profitability received will be higher, and conversely, the longer the working capital turnover period, the lower the profitability received (Anissa, 2019). Based on the above explanation, the hypothesis proposed here is:

H3: Working Capital Turnover Positively Affects Profitability.

The Influence of Liquidity, Solvency, and Working Capital Turnover on Profitability

High debt repayment capacity and fast working capital turnover allow companies to avoid obstacles and challenges in generating profits. This can be interpreted as an increase in liquidity, solvency, and working capital turnover together leading to a rise in profitability. The results show that liquidity, solvency, and working capital simultaneously affect company profitability (Dwiarti, 2022). Based on the above explanation, the hypothesis proposed here is:

H4: Liquidity, Solvency, and Working Capital Turnover Positively Affect Profitability.

METHODS

In this research, the statistical approach used was multiple linear regression, a technique intended to evaluate the effect of two or more independent variables on a dependent variable measured on an interval or ratio scale, within the framework of a linear equation. The multiple regression model applied here sought to examine the effects of liquidity (X1), solvency (X2), and working capital turnover (X3) on profitability (Y). This analysis aimed to determine the nature of the relationships between the dependent and independent variables, specifically identifying whether each independent variable has a positive or negative correlation. Furthermore, the model sought to estimate how changes in the independent variables might impact the dependent variable. The data used in this analysis typically follows an interval or ratio measurement scale. The regression formula employed for this analysis is:

$$\boldsymbol{Y = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + e}$$

In this case, it is:
a = constant
X1 = Liquidity
X2 = Solvency
X3 = Working Capital Turnover
Y = Profitability
β1β2β3 = Regression coefficient for X1, X2, X3
e = disturbance/error factor

RESULT AND DISCUSSION

RESULT

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to evaluate the influence of two or more independent variables on a single dependent variable, which is represented by a regression equation. The results of this analysis are then summarized and presented in the following manner:

Table 1: Linear Regression Analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,150	0,045		3,349	0,001
	Liquidity	0,004	0,008	0,072	0,430	0,668
	Solvency	-0,135	0,057	-0,341	-2,361	0,021
	Working Capital Turnover	-0,004	0,003	-0,164	-1,324	0,189
a. Dependent Variable: Profitability						

Y = 0.150 + 0.004X1 – 0.135X2 – 0.004X3 + e

1. **Constant**
   The constant (a) obtained from the multiple linear regression equation is 0.150, meaning that

if all independent variables, such as liquidity, solvency, and working capital turnover, are zero, the profitability value will be 0.150.

2. **Liquidity (Current Ratio)**
   Liquidity has a value of 0.004, indicating a positive or direct relationship between liquidity and profitability. This means that if liquidity increases, profitability will increase by 0.004, assuming other variables remain constant.
3. **Solvency (Debt to Asset Ratio)**
   Solvency has a value of -0.135, indicating a negative or inverse relationship between solvency and profitability. This shows that if solvency decreases, profitability will decrease by -0.135, assuming other variables remain constant.
4. **Working Capital Turnover**
   Working capital turnover has a value of -0.004, indicating a negative or inverse relationship between working capital turnover and profitability. This shows that if working capital turnover decreases, profitability will decrease by -0.004, assuming other variables remain constant.

Hypothesis Test

1. **t-Test (Partial Test)**
   The t-test is used to assess the partial effect of each independent variable on the dependent variable. The direction of the variable's influence is determined by analyzing the regression coefficient. A positive regression coefficient indicates that the independent variable has a positive effect on the dependent variable, while a negative regression coefficient suggests that the independent variable has a negative effect on the dependent variable.

Table 2 Statistical Test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,150	0,045		3,349	0,001
	Liquidity	0,004	0,008	0,072	0,430	0,668
	Solvency	-0,135	0,057	-0,341	-2,361	0,021
	Working Capital Turnover	-0,004	0,003	-0,164	-1,324	0,189
a. Dependent Variable: Profitability						

Liquidity
The significance value (sig.) for the effect of X1 is 0.668 > 0.05, and the t-calculated value is 0.430 < t-table value of 1.99125. Therefore, it can be concluded that liquidity does not have a significant effect on profitability, meaning H1 is rejected.

Solvency
The significance value (sig.) for the effect of X2 is 0.021 < 0.05, and the t-calculated value is -2.361 > t-table value of 1.99125. Therefore, it can be concluded that solvency has a significant negative effect on profitability, meaning H2 is accepted.

Working Capital Turnover
The significance value (sig.) for the effect of X3 (profitability) is 0.189 > 0.05, and the t-calculated value is -1.324 < t-table value of 1.99125. Therefore, it can be concluded that working capital turnover does not have a significant effect on profitability, meaning H3 is rejected.

2. **F-Test (Simultaneous Test)**

The F-test is used to evaluate the overall validity of the model or to statistically determine whether the regression coefficients of the independent variables when considered together, have a significant effect on the dependent variable.

Table 3: F-Statistical Test

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0,055	3	0,018	7,947	,000b
	Residual	0,179	77	0,002		
	Total	0,235	80			
a. Dependent Variable: Profitability						
b. Predictors: (Constant), Working Capital Turnover, Solvability, Liquidity						

Based on the output above, the significance value for the simultaneous effect of Liquidity, Solvency, and Working Capital Turnover on Profitability is 0.000 < 0.05, and the F-calculated value is 7.947 > F-table value of 2.72. It can be concluded that Liquidity, Solvency, and Working Capital Turnover collectively have a significant effect on Profitability.

3. **Coefficient of Determination Test (Adjusted R^2)**
   The coefficient of determination test is used to assess the accuracy of the model or to measure how much the independent variables explain the variation in the dependent variable. The coefficient of determination (R^2) ranges from zero to one, where a lower R^2 value suggests that the independent variables have a limited capacity to explain the dependent variable.

Table 4: Coefficients of Determination

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,552a	0,305	0,268	0,04633	1,772
a. Predictors: (Constant), Profitability, Working Capital Turnover, Solvability, Liquidity					
b. Dependent Variable: Profitability					

Based on the results shown in Table 4 above, it is explained that the coefficient of determination (R^2) for the regression model is 0.207 or 20.7%. This indicates that the variables Liquidity, Solvency, and Working Capital Turnover account for 20.7%, while the remaining 70.3% is influenced by other variables not included in the research model.

DISCUSSION

The Effect of Liquidity on Profitability

Liquidity does not have a significant effect on profitability. The findings indicate that fluctuations in liquidity during the study period do not impact company profitability. An increase in liquidity does not necessarily lead to higher profits, as it may create idle funds that could be used for investment. Therefore, the study suggests that liquidity levels do not significantly influence profitability. This finding aligns with research by (Suwandi et al., 2019) and (Anissa, 2019), which also found that changes in liquidity do not affect profitability, as excess liquidity may lead to unutilized funds that could otherwise be invested.

The Effect of Solvency on Profitability

Solvency significantly affects profitability. The results show that an increase in solvency leads to a decrease in profitability. A higher proportion of debt in a company's capital structure tends to reduce the likelihood of achieving higher profitability. This finding is consistent with the research of (Sari et al., 2020), which notes that companies with high debt-to-equity ratios might struggle to generate sufficient earnings to meet their obligations, while a low ratio may suggest an underutilization of profitability.

The Effect of Working Capital Turnover on Profitability

Working capital turnover does not have a significant effect on profitability. The results suggest that the working capital turnover ratio of the company is not very effective. As sales increase, the company requires working capital to support business operations. This finding is in line with research by (Rahayu et al., 2021) and (Dewi & Hernawati, 2023), which states that working capital turnover is not solely derived from current assets but also from the company's capital, and the ratio of invested working capital affects profitability.

The Effect of Liquidity, Solvency, and Working Capital Turnover on Profitability

Liquidity, solvency, and working capital turnover together lead to an increase in company profitability, and vice versa, as shown by the significance value (Sig) of 0.000 < 0.05. According to the output in Table 4.9, liquidity, solvency, and working capital turnover together account for 20.7% of the variation in profitability, while the remaining percentage is influenced by other factors.

CONCLUSION

This research investigates the impact of liquidity, solvency, and working capital turnover on profitability within manufacturing companies in the consumer goods sector for the period from 2019 to 2022. The study utilized a sample of 108 companies selected through purposive sampling, with financial data sourced from IDX. The analysis, conducted using multiple linear regression after ensuring adherence to classic assumptions (normality, multicollinearity, autocorrelation, and heteroscedasticity), reveals the following findings: Liquidity does not have a significant impact on profitability, solvency has a significant effect on profitability, working capital turnover does not significantly affect profitability. Overall, while liquidity and working capital turnover do not significantly influence profitability, solvency plays a crucial role in affecting profitability.

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