



Working Capital Turnover, Leverage, And Operating Cash Flow As Determinants Of Liquidity In Food and Beverage Companies In Indonesia

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ABSTRACT

This study aims to analyze the effects of Working Capital Turnover (WCT), Debt-to-Asset Ratio (DAR), and Operating Cash Flow (OCF) on corporate liquidity, as proxied by the Current Ratio (CR). The study population includes all companies in the food and beverage subsector listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024. Using purposive sampling, a final sample of 7 companies was obtained, comprising a total of 140 panel data observations, which were analyzed using SPSS. The data analysis techniques applied included descriptive statistical analysis, classical assumption tests, multiple linear regression analysis, the coefficient of determination test, and hypothesis testing (t-test and F-test). The results of the partial tests (t-tests) show that WCT has a positive and significant effect on CR (beta = 0.209); (Sig. = 0.00), and OCF has a positive and significant effect on CR (beta = 0.195); (Sig. = 0.012). Conversely, DAR was found to have a negative and significant effect on CR (beta = -0.507); (Sig. = 0.000) and was the most dominant variable influencing liquidity. Simultaneously (F-test), all three independent variables had a significant effect on CR with an F-value of 42.991 (Sig. = 0.000). The Adjusted R-Square value of 0.787 indicates that 78.7% of the variation in liquidity can be explained by this model, while the remainder is influenced by other factors outside the scope of this study. Management is advised to optimize working capital turnover and maintain a balanced debt structure to ensure the company's liquidity stability. The implementation of the research findings emphasizes the need for management to improve working capital efficiency by accelerating the cash cycle and limiting the asset-based debt ratio to maintain liquidity stability.

1. INTRODUCTION

Liquidity is one of the key indicators that reflects a company's ability to meet its short-term obligations using its current assets. A good liquidity ratio indicates a company's sound financial condition, supports the smooth operation of its business activities, and boosts investor and creditor confidence. Conversely, a low liquidity ratio can cause a company to face difficulties in meeting its short-term obligations, potentially disrupting the continuity of its operations (Kasmir, 2019; Brigham & Houston, 2019; Hery, 2020). Companies in the food and beverage subsector are part of the manufacturing sector that makes a significant contribution to the Indonesian economy and has proven resilient in the face of various economic dynamics. However, the financial condition of companies in this subsector during the 2020–2024 period showed varying fluctuations, particularly in working capital management, funding structure, operating cash flow, and liquidity levels. Some companies have been able to maintain good liquidity through effective working capital and cash flow management, while others have experienced a decline in liquidity due to increasing debt pressures or a decline in their ability to generate cash from operating activities. These conditions indicate that each company has a different financial management strategy, so there is no single pattern that can comprehensively describe liquidity stability.

Theoretically, liquidity is influenced by various internal factors within a company, including Working Capital Turnover (WCT), Debt-to-Asset Ratio (DAR), and Operating Cash Flow (OCF). Working Capital Turnover reflects a company's effectiveness in utilizing working capital to generate sales. The higher the working capital turnover rate, the more efficiently the company manages its current assets, thereby increasing its ability to meet short-term obligations (Kasmir, 2020; Harahap, 2021; Brigham & Houston, 2021). Meanwhile, the Debt-to-Asset Ratio indicates the proportion of debt used to finance a company's

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assets. A high debt ratio can increase financial risk because the company has larger payment obligations, which may potentially reduce its liquidity (Brigham & Houston, 2021; Gitman & Zutter, 2015). Furthermore, operating cash flow reflects a company's ability to generate cash from operating activities, which serve as the primary source for meeting short-term obligations (Kieso, Weygandt, & Warfield, 2018).

The relationship between these three variables and liquidity can be explained through Agency Theory, which states that management, as an agent, is responsible for effectively managing the company's resources to achieve the objectives of the company's owners (Jensen & Meckling, 1976). Management decisions regarding working capital, capital structure, and operating cash flow will influence a company's ability to maintain liquidity and minimize financial risk (Brigham & Houston, 2019). Previous studies have yielded inconsistent results regarding the effects of Working Capital Turnover, Debt-to-Asset Ratio, and Operating Cash Flow on corporate liquidity. Some studies have found that Working Capital Turnover has a positive and significant effect on liquidity (Sunaryo, 2019; Trisnayanti et al., 2020), while other studies indicate that the effect is insignificant or even tends to be negative for companies with certain characteristics (Runtulalo et al., 2018).

Similarly, regarding the debt-to-asset ratio, theoretically, an increase in the debt ratio is expected to reduce liquidity; however, several studies indicate that large companies are still able to maintain liquidity despite having relatively high debt levels because they are able to optimize the use of borrowed funds to increase cash flow and profitability (Wiguna & Darmayanti, 2020). Meanwhile, the effect of operating cash flow on liquidity also yields mixed results, depending on the company's characteristics and the prevailing economic conditions (Samsul & Putri, 2021). The discrepancies in these research findings indicate that there remains a research gap regarding the factors that influence corporate liquidity, particularly in the food and beverage subsector following the post-pandemic economic recovery period. Therefore, this study was conducted to analyze the effects of Working Capital Turnover, Debt-to-Asset Ratio, and Operating Cash Flow on liquidity in companies in the food and beverage subsector listed on the Indonesia Stock Exchange for the period 2020–2024. The results of this study are expected to contribute to the development of financial management knowledge and serve as a reference for company management, investors, and future researchers in understanding the factors that influence corporate liquidity.

2. METHODS

This study employs a quantitative research approach with a causal-associative design to examine the effects of Working Capital Turnover (WCT), Debt-to-Assets Ratio (DAR), and Operating Cash Flow (OCF) on corporate liquidity, as proxied by the Current Ratio (CR). The research sample consists of companies in the food and beverage subsector listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. This study uses secondary data obtained from companies' annual financial statements published on the IDX's official website and their annual reports. The sample was selected using purposive sampling based on several criteria. Based on these criteria, seven companies were selected as the research sample, yielding 140 panel observations over five years.

Data analysis was conducted using multiple linear regression analysis with the aid of SPSS software. Prior to the regression analysis, the data were tested using classical assumption tests, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation, to ensure the validity of the regression model. In addition, hypothesis testing was performed using the t-test (partial test) to examine the effect of each independent variable on liquidity, as well as the F-test (simultaneous test) to evaluate the combined effect of all independent variables on the dependent variable. The model's explanatory power was assessed using the coefficient of determination (R^2).

3. RESULTS AND DISCUSSIONS

Descriptive statistics analysis of the data shows that the WCT variable has a minimum value of 4.76 and a maximum value of 7.13, with a mean of 5.8905 and a standard deviation of 0.64177. The fact that the mean is larger than the standard deviation indicates that the WCT data are relatively stable and do not deviate significantly from the mean. The DAR variable has a minimum value of 2.21 and a maximum value of 6.26, with a mean of 3.3740 and a standard deviation of 0.82036. This indicates that, in general, the level of debt utilization relative to total assets among the companies in the study sample is within a fairly

controlled range, although it exhibits greater variation compared to the other variables. The OCF variable has a minimum value of 4.63 and a maximum of 6.84, with a mean of 5.6334 and a standard deviation of 0.78878. These values indicate that the companies' operating cash flow in this study is relatively strong and tends to be stable, as the standard deviation is smaller than the mean.

Meanwhile, the CR variable, as the dependent variable, has a minimum value of 4.92 and a maximum value of 7.19, with a mean of 5.8804 and a standard deviation of 0.65268. This indicates that the liquidity levels of the companies in the study sample are in fairly good condition and relatively stable. Overall, the four variables in this study have standard deviations that are smaller than their mean values. This indicates that the data used in the study have a relatively low level of dispersion, so it can be said that the data are fairly homogeneous and do not show extreme fluctuations.

From the regression results, the following multiple linear regression equation was obtained:

$$CR = 9.923 + 0.209(WCT) - 0.507(DAR) + 0.195(OCF)$$

The constant term of 9.923 indicates that if WCT, DAR, and OCF are held constant (at 0), then CR has a value of 9.923. The regression coefficient for WCT, 0.209, indicates that a 1-unit increase in WCT will increase CR by 0.209 units; this means that as WCT increases, CR tends to increase. A DAR of -0.507 indicates that a 1-unit increase in DAR will decrease CR by 0.507 units. A negative coefficient indicates that as DAR increases, CR decreases. This means that an increase in the debt-to-assets ratio can reduce a company's liquidity. OCF of 0.195 indicates that every 1-unit increase in OCF will increase CR by 0.195 units. This suggests that as OCF increases, CR tends to rise. Based on the Standardized Coefficients (Beta) values, the variable with the most dominant influence on CR is DAR, with a Beta value of -0.638. This indicates that DAR has the greatest influence compared to WCT and OCF in explaining changes in CR.

Hypothesis Testing

The results of the t-test indicate that a variable is considered to have a significant effect if the Sig. value is < 0.05 . The test results show that: The WCT regression coefficient of 0.209 indicates that every 1-unit increase in WCT will increase CR by 0.209 units, assuming all other variables remain constant. The t-value is 1.694 with a Sig. value of 0.009. Since Sig. < 0.05 , WCT has a significant effect on CR. This indicates that WCT has a positive and significant effect on CR.

The regression coefficient for DAR is -0.507, indicating that a 1-unit increase in DAR will decrease CR by 0.507 units, assuming all other variables remain constant. The t-value is -5.648 with a significance level (Sig) of 0.000. Since Sig < 0.05 , DAR has a significant effect on CR. The negative coefficient indicates that DAR has a negative and significant effect on CR. The OCF regression coefficient of 0.195 indicates that a 1-unit increase in OCF will increase CR by 0.195 units, assuming all other variables remain constant. The t-value is 2.673 with a significance level (Sig) of 0.012. Since Sig < 0.05 , OCF has a significant effect on CR. This indicates that OCF has a positive and significant effect on CR.

The ANOVA test results yielded an F-value of 42.991 with a p-value of 0.000. Since the p-value of 0.000 is less than 0.05, it can be concluded that WCT, DAR, and OCF simultaneously have a significant effect on CR. The large F-value (42.991) indicates that the regression model has a strong ability to explain the variation in CR. Thus, the results of this test indicate that the regression model used in this study is statistically significant simultaneously, accepting H_a and rejecting H_0 . It can therefore be concluded that all independent variables in this study—namely, WCT, DAR, and OCF—collectively have a significant effect on liquidity (CR) in companies in the food and beverage subsector for the 2020–2024 period.

Coefficient of Determination or R-Square (R^2) An R-Square value of 0.898 indicates that the relationship between WCT, DAR, and OCF and CR is very strong, as it is close to 1. An R-Square value of 0.806 means that 80.6% of the variation in CR can be explained by WCT, DAR, and OCF collectively in the regression model. Meanwhile, 19.4% is explained by other factors outside the research model that were not included in the analysis. The adjusted R-squared value of 0.787 indicates that, after adjusting for the number of independent variables and the sample size, the model's ability to explain CR is 78.7%. The difference between R-squared and the adjusted R-squared of 0.019 indicates that the regression model is stable and does not exhibit significant overestimation. The standard error of the estimate of 0.30090 indicates a relatively small level of prediction error, suggesting that the model is sufficiently accurate in predicting CR.

Discussion

The t-test results show that WCT has a Sig value of $0.009 < 0.05$ with a regression coefficient of 0.209. This indicates that WCT has a positive and significant effect on CR. Theoretically, a higher WCT indicates that a company is more effective at utilizing working capital to generate sales. This efficiency impacts the smooth flow of cash and enhances the company's ability to meet its short-term obligations. Therefore, an increase in WCT will drive an increase in CR. These findings indicate that efficient working capital management is a key factor in maintaining a company's liquidity level. In line with the study by Nasution et al. (2023), cash turnover has a significant positive effect on the liquidity of companies in the food and beverage subsector, whereas WCT is partially insignificant. Furthermore, the study by Tangngi-salu et al. (2022) confirms that WCT still has a positive effect on liquidity through the mediating effect of profitability, indicating that working capital efficiency is crucial in maintaining cash availability. According to the study by Jannati Tangngisalu et al. (2022), both WCT and cash flow have a positive effect on liquidity, albeit through the mediating effect of profitability. This study confirms that working capital turnover efficiency remains a key factor in ensuring sufficient cash to meet short-term obligations, thereby enhancing a company's liquidity.

The t-test results show that DAR has a Sig value of $0.000 < 0.05$ with a regression coefficient of -0.507. This indicates that DAR has a negative and significant effect on CR. In financial terms, a higher DAR means a larger proportion of assets is financed by debt. An increase in debt raises a company's liabilities—particularly short-term liabilities—which can reduce liquidity levels. This situation causes the CR to decline as the DAR increases. Furthermore, based on the largest absolute Beta value, DAR is the most dominant variable influencing the CR. This indicates that a company's capital structure plays a very strong role in determining its liquidity level. Research by Edy Purwaningsih (2022) shows that companies with a high DAR face limitations in maintaining liquidity, while Syahputra & Imronudin (2023) found a negative relationship between DAR and Liquidity. According to a study by Satria Arga Dita Syahputra & Imronudin (2023), capital structure—as measured by the debt-to-assets ratio (DAR)—has a negative relationship with a company's liquidity. Companies with a higher proportion of debt are at risk of experiencing liquidity difficulties because the portion of assets available to meet current liabilities decreases. Within the framework of this study, DAR is positioned as an independent variable that has a negative effect on liquidity, based on the assumption that the higher the debt-to-asset ratio, the greater the pressure on a company's ability to maintain its liquidity.

The t-test results show that OCF has a significance level (Sig) of $0.012 < 0.05$ with a regression coefficient of 0.195. This indicates that OCF has a positive and significant effect on CR. Theoretically, OCF reflects a company's ability to generate cash from its operating activities. The higher the OCF, the greater the company's ability to meet its short-term obligations without relying on external financing. Therefore, an increase in OCF will improve the CR. These results reinforce the notion that stable and positive operating cash flow is a key indicator in maintaining a company's liquidity. Research by Isweri & Manurung (2023) found that an increase in OCF has a significant positive effect on liquidity, while Tangngisalu et al. (2022) confirmed that high OCF, mediated by profitability, can enhance a company's ability to maintain liquidity. Cash from operations is the primary source of liquidity; therefore, companies with high OCF can more easily meet their short-term obligations and reduce the risk of cash flow difficulties. OCF is positioned as an independent variable that has a positive effect on liquidity, based on the assumption that the higher the operating cash flow generated, the greater a company's ability to maintain its liquidity, particularly in the food and beverage subsector for the 2020–2024 period.

The results of the F-test showed a Sig value of $0.000 < 0.05$ with an F value of 42.991. This indicates that WCT, DAR, and OCF collectively have a significant effect on CR. The R-squared value of 0.806 indicates that 80.6% of the variation in CR can be explained by WCT, DAR, and OCF, while 19.4% is influenced by other factors outside the research model. This indicates that the model has a high explanatory power in explaining changes in CR. Consistent with the study by Nasution et al. (2023), cash turnover has a significant positive effect on the liquidity of companies in the food and beverage subsector, whereas WCT is only partially significant. However, Tangngi-salu et al. (2022) assert that WCT still has a positive effect on liquidity through the mediation of profitability, indicating that working capital efficiency is crucial in maintaining cash availability. The Debt-to-Asset Ratio (DAR) measures the proportion of debt relative to a company's total assets. The higher the DAR, the larger the portion of assets financed by debt, meaning the

company faces greater pressure to meet short-term obligations, which can reduce liquidity. Research by Purwaningsih (2022) shows that companies with a high DAR face limitations in maintaining liquidity, while Syahputra & Imronudin (2023) found a negative relationship between DAR and liquidity.

Operating Cash Flow (OCF) reflects the cash flow generated from a company's operating activities. The higher the OCF, the greater the company's ability to pay its short-term obligations, thereby improving liquidity. Research by Isweri & Manurung (2023) found that an increase in OCF has a significant positive effect on liquidity, while Tangngisalu et al. (2022) confirmed that high OCF, mediated by profitability, can enhance a company's ability to maintain liquidity.

4. CONCLUSION

This study yielded three main conclusions. First, WCT has a positive and significant effect on CR, with a Sig value of $0.009 < 0.05$. This means that as WCT increases, CR tends to increase. Second, DAR has a negative and significant effect on CR, with a Sig value of $0.000 < 0.05$. This means that as DAR increases, CR decreases. Third, OCF has a positive and significant effect on CR, with a p-value of $0.012 < 0.05$. This means that an increase in OCF will increase CR. Fourth, the simultaneous analysis yielded a p-value of $0.000 < 0.05$, indicating that WCT, DAR, and OCF collectively have a significant effect on CR. The R-squared value of 0.806 indicates that 80.6% of the variation in CR can be explained by these three variables, while 19.4% is influenced by other factors outside the research model. This study has several limitations, particularly regarding the independent variables. It is recommended to include other variables that could potentially influence a company's liquidity such as profitability, firm size, or sales growth as well as to extend the study period or examine other industry sectors so that the findings can be more comprehensive and have broader generalizability.

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