Enhancing Cash Flow through Accounts Receivable Turnover and Inventory Management in the Tobacco Industry

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Article Info	Abstract
	This research investigates the impact of accounts receivable and inventory turnover on the liquidity of cigarette sub-sector companies listed on the Indonesian Stock Exchange (IDX) from 2017 to 2019. This study uses a quantitative approach and relies on secondary data from company financial statements, articles, and journal articles; this study focuses on three sample companies within the cigarette industry. Key financial metrics, including current ratio, accounts receivable, and inventory turnover, are analyzed to assess their influence on liquidity. The findings reveal that while accounts receivable turnover does not significantly affect liquidity, inventory turnover substantially influences liquidity levels in the cigarette industry companies listed on the IDX. These insights provide valuable guidance for stakeholders in assessing and optimizing companies' liquidity within the cigarette sub-sector.

INTRODUCTION

Every entrepreneur establishes a company with the primary objective of conducting profitable business activities and contributing to job creation. In today's era of globalization, various industrial sectors have emerged, intensifying competition in the business landscape. To thrive in this environment, companies must rely on human resources endowed with creativity and competence in harnessing science and technology. Effective decision-making, driven by well-formulated strategies, has become essential to navigating the fiercely competitive business landscape. Agriculture is pivotal in the Indonesian economy, making the nation heavily reliant on agricultural products.

Indonesia is often called an "agricultural country," evident in the many Indonesians engaged in farming and agricultural labor. The diverse range of agricultural products within Indonesia further underscores its agricultural prominence. Tobacco, categorized as a plantation commodity, is a significant agricultural product and is the primary ingredient in cigarette production. The

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cigarette manufacturing process involves tobacco processing, which, in turn, generates employment opportunities. Thus, tobacco indirectly contributes to job creation. The cigarette industry stands out as one of the sectors with the most substantial contributions to the Indonesian economy. This is attributed to the widespread consumption of cigarettes across various age groups, spanning from adolescence to middle age.

The high demand for cigarettes necessitates large-scale production to meet market needs. Consequently, increased production leads to higher company revenues and, subsequently, greater tax contributions to the government. Accounts receivable turnover and inventory turnover hold paramount importance for companies as they offer insights into the efficiency of working capital management. Liabilities are a fundamental aspect of a company's financial structure, typically categorized into two primary categories: short-term and long-term. Within this financial framework, the interplay between current assets and short-term liabilities assumes paramount importance, particularly concerning short-term liquidity management. Effective handling of inventory and accounts receivable turnover is instrumental in achieving the delicate balance necessary for sustaining businesses' financial well-being and stability, especially within the fiercely competitive business landscape.

Short-term liquidity revolves around a company's ability to meet its immediate financial obligations, primarily comprised of short-term liabilities. Short-term liabilities encompass obligations due within a relatively short timeframe, typically within a year. These obligations may include accounts payable, short-term loans, and other financial commitments that demand prompt payment. In this context, effective management of inventory turnover and accounts receivable turnover is critical. Inventory turnover reflects the efficiency with which a company converts its inventory into sales within a specific period. A high inventory turnover rate suggests efficient management and a reduced risk of holding excess inventory, which can tie up valuable working capital.

Concurrently, accounts receivable turnover measures the speed at which a company collects payments from its customers. A higher accounts receivable turnover ratio indicates that the company is adept at collecting outstanding receivables swiftly, enhancing its cash flow and liquidity position. The synergy between these financial metrics is essential. Ensuring that current assets, including inventory and accounts receivable, can sufficiently cover short-term liabilities guarantees that a company can meet its financial obligations promptly and

maintain financial stability. This equilibrium is especially critical in a competitive business environment where agility and sound financial management can be differentiating factors for a company's success.

LITERATURE REVIEW

Financial performance

The accounts receivable turnover ratio is calculated by dividing net credit sales by average accounts receivable (Zulhendra & Lady Novica, 2021). A high accounts receivable turnover ratio indicates that a company collects its debts quickly and efficiently, while a low ratio may indicate a company is having difficulty collecting its debts (Vista et al., 2023). The accounts receivable turnover ratio is important because it directly correlates to how much cash a company may have and how much cash it expects to receive in the future (Manullang et al., 2020).

Inventory

The inventory turnover ratio is calculated by dividing the cost of goods sold by the average list for the period (Rivaldy, 2022). A high inventory turnover generally means goods are sold faster, while a low turnover rate indicates weak sales and excess inventories(Seetha et al., 2019). The inventory turnover ratio is an essential inventory management metric that helps businesses make better decisions for their operations (Busman Bactiar et al., 2022).

Liquidity

Liquidity is a financial concept that refers to the ease with which an asset or security can be converted into cash without affecting its market price. It is an essential measure of a company's financial health and flexibility in meeting its short-term obligations or liabilities. Liquidity can be classified into two main categories: market liquidity and accounting liquidity. Market liquidity refers to the ease with which an asset can be sold at a price reflecting its intrinsic value. Accounting liquidity, on the other hand, refers to the amount of ready money a company has to meet its cash obligations when due. Cash is the most liquid asset because it can instantly be exchanged for goods and services at face value. Other liquid assets include stocks, bonds, and other exchange-traded securities. Tangible items such as real estate, fine art, and collectibles are relatively illiquid. Measuring liquidity ratios provides a financial health check of a business and helps entrepreneurs make smart decisions that ensure sustainability. Liquidity is an

essential measure of a company's financial health and flexibility in meeting its short-term obligations or liabilities (Zait & Bertea, 2014).

RESEARCH METHODS

Determination of the Number of Samples

This study uses the population of cigarette industry companies listed on the Indonesia Stock Exchange. The cigarette industry sector listed on the Indonesia Stock Exchange has a sample of 3 companies studied during the 2017-2019 period that met the criteria and published annual financial reports expressed in millions of rupiahs.

Sample Collection Method

This study uses an associative approach research method, namely the research technique used to determine the influence and relationship between two or more variables. Collecting data in this research uses documentation techniques. This study used quantitative data sourced from secondary data. In managing the sample, this study uses the criteria for cigarette industry companies listed on the Indonesia Stock Exchange to issue annual financial reports in rupiah currency.

Operational Variables

In this research, operational variables are needed so that hypothesis testing using statistics can explain the identity used to determine the type of variable, determine the variables used, and describe the meaning of each variable correctly.

Independent Variable (X)

The independent variables used in this study are:
a) Accounts Receivable Turnover (X1) Accounts Receivable Turnover is calculated by dividing net credit sales by Average Receivables. Average receivables are obtained from adding Initial Receivables and Ending Receivables divided by two.
b) Inventory Turnover (X2) Inventory Turnover is calculated by dividing sales by the average inventory. Average inventory is obtained from the starting and ending list and then divided by two.

Dependent Variable (Y)

Liquidity (Y) The liquidity ratio measures a company's ability to meet its short-term liabilities with its current assets, so use the current or working capital ratio. The current balance is the dividend between current assets and short-term liabilities.

Data analysis method

The method used is multiple linear regression analysis because it contains two or more variables. This method is used to determine the extent to which accounts receivable and inventory turnover affect the liquidity of the cigarette company industry. The following is a multiple linear regression analysis model that will be used:

$Y = a + b1X1 + b2X2$

Information:

Y = Dependent variable (liquidity)

A = Constant number (constant)

b1, b2 = Regression coefficient

X1, X2 = Independent variable

Correlation Analysis

This analysis measures the relationship between the related variable and two or more independent variables (Independent). This analysis aims to determine the size of the strength or degree of closeness of a relationship that occurs between variables.

Analysis of the Coefficient of Determination

This analysis is used to determine the size of the suitability of multiple linear regression lines to data. In addition, this analysis is also used to measure the contribution of the independent variable to the dependent variable and as a determinant of the suitability of the multiple linear regression lines Y against X1 and X2, which is used to approach the linear relationship between variables based on the research results.

RESULTS

Classic Assumption Test

The purpose of doing this classical assumption test is to obtain authentic analysis results. The following is a test to prove whether or not these two classical assumptions are fulfilled.

a. **Normality Test**, the normality test is carried out to provide certainty that the inputted data has a normal distribution or not. This study tested the data normality test using the P-P Plot of Regression Normal.
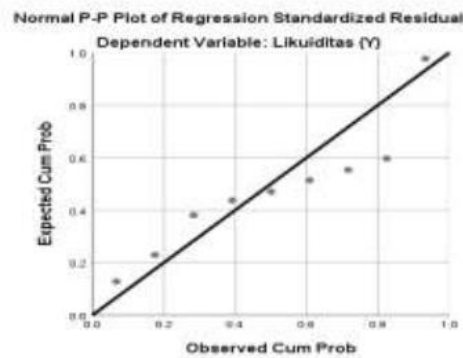
Figure 1: Normality test

Source: Processed Primary data (2021)

The P-Plot image above illustrates a distribution of points that closely adhere to and approach the diagonal line. This pattern suggests that the regression model satisfies the normality assumption. In regression analysis, one of the fundamental assumptions is the normality of residuals, which implies that the residuals, or the differences between observed and predicted values, should follow a normal distribution. Observing a pattern where the points align closely with the diagonal line indicates that the residuals are approximately normally distributed when examining the distribution of residuals using a P-plot.

b. **Multicollinearity Test:** This test shows the situation and whether a strong relationship exists between the independent variables in a multiple regression model.

Table 1. Multiple Regression Model

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	-.201	1.173		-.171	.870		
	Accounts Receivable Turnover (X1)	.014	.019	.197	.729	.493	.911	1.098
	Inventory Turnover (X2)	.619	.207	.810	2.995	.024	.911	1.098

Source: Processed Primary data (2021)

The table above shows that all independent variables' Variance Inflation Factor (VIF) values are less than 10, and the tolerance values are more significant than 0.1. These findings suggest no multicollinearity issues within the regression model in this study. Multicollinearity occurs when independent variables in a regression model are highly correlated, which can complicate the interpretation of the model's coefficients and lead to unreliable results.

The VIF and tolerance values are standard diagnostic tools for assessing multicollinearity in regression analysis. A VIF value less than ten and a tolerance value greater than 0.1 are commonly used thresholds to indicate that multicollinearity is not a significant concern. In this context, the results suggest that the independent variables in the regression model do not exhibit solid correlations with each other, and therefore, multicollinearity is absent. This is a positive outcome, as it enhances the reliability and interpretability of the regression model, allowing researchers to use it for analysis confidently and draw conclusions about the relationships between the variables of interest.

c. **Autocorrelation Test**

This test is conducted to determine whether the model has a correlation variable between the current and previous periods.

Table 2. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.775ᵃ	.600	.467	.94383	2.065

Source: Processed Primary data (2021)

Based on the test results, it can be seen that the Durbin Watson (D-W) value is 2.07 while from the D-W table with a significance of 0.05 and the amount of data (N) 9, and the number of independent variables (K) 2, the DU value is 1.31988, and the DL value is 0.82428. because the DW value (2.065) is greater than the limit value of DU and less than (4-dU) = 4 - 1.31988 = 2.68012, so it can be concluded that there is no autocorrelation (in the area of doubt).

Hypothesis Testing

a. **Simultaneous F Test**

The F-test in regression analysis assesses whether all the independent variables, taken together as a group, significantly influence the dependent variable. This statistical test helps determine the overall significance of the regression model.

When conducting the F-test, the null hypothesis assumes that all the coefficients of the independent variables are equal to zero, indicating that none of the independent variables have a meaningful impact on the dependent variable. Conversely, the alternative hypothesis suggests that at least one of the independent variables has a significant effect on the dependent variable. The null hypothesis is rejected if the calculated F-statistic is sufficiently large and results in a p-value less than the chosen significance level (typically 0.05). This indicates that the independent variables, as a group, significantly influence the dependent variable, and the regression model is considered statistically significant.

Table 3. Simultaneous F Test

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.018	2	4.009	4.500	.064[b]
	Residual	5.345	6	.891		
	Total	13.363	8			

Source: Processed Primary data (2021)

The table 3 shows that the F value stands at 4.500, with a corresponding significance level of 0.064. This significance level of 0.064 exceeds the standard alpha threshold 0.05, typically used to determine statistical significance in hypothesis testing. Consequently, based on these statistical results, it can be concluded that when considered together, the accounts receivable turnover and inventory turnover variables do not significantly influence liquidity, as measured by the current ratio.

In simpler terms, the statistical analysis suggests that changes in accounts receivable turnover and inventory turnover, when taken as a whole, do not appear to substantially impact the current ratio, which is a commonly used metric for assessing liquidity in financial analysis. This finding implies that variations in these variables, when combined, do not significantly alter a company's ability to meet its short-term financial obligations or influence its overall liquidity position. However, it's essential to exercise caution when interpreting statistical results, as they provide insights into the relationship between variables but may not capture the complete real-world context. Other factors and variables not included in this analysis could influence liquidity independently or in conjunction with accounts receivable and inventory turnover. Therefore, while this analysis may indicate no significant impact, it is advisable to consider a comprehensive view of all relevant financial and operational factors when assessing a company's liquidity.

b. Partial T Test

The T-test is employed as a statistical tool to assess the individual influence of each independent variable on the dependent variable, as outlined by Ghozali in 2012. This analytical approach allows researchers to examine and evaluate the significance of each independent variable in isolation, providing insights into their respective impacts on the dependent variable.

By conducting separate T-tests for each independent variable, researchers can discern whether a particular variable exerts a statistically significant effect on the dependent variable. The T-test provides a valuable means of quantifying the strength and direction of these effects, aiding in identifying key drivers or determinants of the dependent variable's variation.

Table 4. Partial T Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-.201	1.173		-.171	.870		
	Account Receivable Turnover (X1)	.014	.019	.197	.729	.493	.911	1.098
	Inventory Turnover (X2)	.619	.207	.810	2.995	.024	.911	1.098

Source: Processed Primary data (2021)

Effect of Accounts Receivable Turnover on Liquidity

The results of the t-hypothesis test show that the significance value of receivables turnover is 0.493> 0.05. This means that hypothesis 1 is rejected, meaning that receivables turnover does not significantly affect liquidity in cigarette sector companies. This shows that accounts receivable turnover does not substantially affect liquidity at cigarette companies listed on the IDX.

Effect of Inventory Turnover on Liquidity

Based on the results of the partial test, it is evident that the significance value associated with inventory turnover is 0.024, which is less than the commonly chosen significance level of 0.05. This signifies that Hypothesis 2, which posits that inventory turnover significantly affects the liquidity of cigarette companies, is accepted. In practical terms, this outcome implies that inventory turnover indeed

exerts a statistically significant influence on the liquidity of cigarette companies listed on the IDX.

This statistical finding provides empirical support for the notion that inventory turnover plays a meaningful role in shaping the liquidity position of these companies. In other words, changes in inventory turnover are associated with variations in liquidity, and this relationship is statistically significant. This insight can be valuable for stakeholders, management, and investors in understanding and managing the financial health of cigarette companies, particularly concerning inventory management and its impact on liquidity.

c. **Determination Coefficient Test (R^2)**

The determination coefficient test (R^2) was conducted to determine how the independent variable could explain changes in the dependent variable.

Table 5. Determination coefficient test (R^2)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.775^a	.600	.467	.94383	2.065

Source: Processed Primary data (2021)

The results from the determination coefficient test presented in the table indicate that the coefficient of determination, denoted as R-squared (R^2), equals 0.467. This means that the combination of accounts receivable turnover and inventory turnover, when considered as independent variables, collectively explains or contributes to 46.7% of the variation observed in liquidity, as measured by the dependent variable. However, it's important to note that the remaining 53.3% of the variation in liquidity is influenced by other factors or variables that were not included or studied as part of this analysis.

In other words, while accounts receivable and inventory turnover play a significant role in explaining liquidity, additional variables or aspects not accounted for in the model also influence a company's liquidity position. The R-squared value is a valuable metric for understanding how well the independent variables in a regression model explain the variability in the dependent variable. In this case, an R-squared of 0.467 suggests that accounts receivable turnover and inventory turnover, while significant, do not capture the entirety of what impacts liquidity in the context of this study. Other factors, such as economic conditions, management decisions, or external market dynamics, likely contribute to the remaining unexplained variation in liquidity.

CONCLUSION

Examining the financial data from cigarette sector companies listed on the IDX for 2017 to 2019 reveals several key findings. Firstly, the overall average current ratio stands at 270.2478%, indicating the financial health of these companies during the specified period. However, regarding the impact on liquidity, the study indicates contrasting outcomes for accounts receivable and inventory turnover. Specifically, reports receivable turnover, despite its high values averaging 2859.6389%, needs a significant effect on liquidity within the cigarette industry companies listed on the IDX during the research period.

This suggests that the swift turnover of accounts receivable does not necessarily translate into a proportionate liquidity enhancement in this context. On the other hand, inventory turnover emerges as a significant factor influencing liquidity. The substantial average inventory turnover rate of 404.2167% highlights its considerable impact on the liquidity of cigarette industry companies listed on the IDX. This underscores the importance of carefully considering and managing inventory turnover to optimize liquidity levels within this sector during the study period.

While high accounts receivable turnover may not correlate strongly with improved liquidity, prudent management of inventory turnover proves to be a critical factor in enhancing the liquidity position of cigarette industry companies listed on the IDX between 2017 and 2019. These findings provide valuable insights for stakeholders seeking to bolster firms' financial stability and liquidity within this sector.

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