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Cash, Receivables, and Inventory Turnover as Determinants of Profitability in Food and Beverage Manufacturing Firms

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ABSTRACT

This study examines the effects of cash turnover, receivables turnover, and inventory turnover on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2021–2023. It aims to assess how working capital efficiency contributes to firm performance in an industry characterized by rapid production cycles and high inventory mobility. Using a quantitative approach, purposive sampling was applied to obtain 36 firm-year observations. Data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, t-tests, F-tests, and the coefficient of determination. The results indicate considerable variation in working capital indicators and profitability across firms. Cash turnover has no significant effect on profitability, suggesting that operational stability and cost efficiency play a more dominant role in this sector. In contrast, receivables turnover shows a significant positive effect, indicating that faster collection improves liquidity and supports higher earnings. Inventory turnover also has a significant positive impact, reflecting the importance of efficient inventory management in reducing holding costs, enhancing sales performance, and strengthening cash flows. Simultaneous testing confirms that all turnover variables jointly influence profitability, underscoring the strategic role of integrated working capital management. This study contributes by providing post-pandemic, sector-specific evidence on working capital efficiency in emerging markets. Future research is encouraged to incorporate broader operational and market factors to further explain profitability dynamics.

Keywords: *cash turnover, Indonesia Stock Exchange, inventory turnover, manufacturing industry, profitability, receivables turnover, working capital efficiency*

INTRODUCTION

The food and beverage industry represents one of the most dynamic and strategic sectors in Indonesia's manufacturing landscape, contributing substantially to national economic growth and employment generation. As competition intensifies and market conditions become increasingly volatile, firms in this sector must implement effective financial management strategies to maintain operational efficiency and ensure long-term sustainability. Profitability, commonly measured through Return on Assets (ROA), remains a fundamental indicator for assessing a company's financial performance and its ability to utilize resources productively. In this context, working capital management—particularly the management of cash, receivables, and inventories—plays a central role in shaping firm profitability. Recent studies highlight that efficient working capital turnover positively affects financial performance by increasing liquidity, accelerating operational cycles, and reducing holding costs (Firli & Hidayati, 2021; Damayanti et al., 2024). However, the relative influence of each component of working capital differs across sectors and economic periods, necessitating further empirical investigation.

Existing literature indicates that industries characterized by fast-moving consumer goods rely

heavily on efficient turnover processes due to high sales volumes and sensitivity to supply-chain disruptions. In the Indonesian food and beverage subsector, effective inventory management is crucial to avoid stockouts, reduce spoilage, and improve cost efficiency. Likewise, receivables turnover affects cash flow stability and liquidity, enabling firms to reinvest more rapidly in operational activities and innovation. Cash turnover, on the other hand, reflects a firm's ability to generate sales from its liquid assets and serves as an indicator of financial health for stakeholders. Despite their theoretical importance, empirical findings regarding these turnover variables remain inconsistent. Some studies report that inventory and receivable turnover have strong positive effects on profitability (Ratnawati et al., 2023; Gitayuda & Purnamawati, 2025), while others observe negligible or even negative effects depending on operational strategy, market structure, or credit policy (Sari, 2021; Moko et al., 2022). This divergence underscores the need for further sector-specific and period-specific research, particularly under post-pandemic economic conditions.

The central problem addressed in this study concerns the extent to which cash turnover, receivable turnover, and inventory turnover influence the profitability of food and beverage manufacturing companies in Indonesia. Although these variables are theoretically associated with efficiency and financial performance, their practical implementation often varies widely across firms. Many companies experience difficulties in maintaining optimal cash levels due to fluctuating sales, irregular payment cycles, or liquidity constraints. Ineffective receivable management may lead to delayed cash inflows, while poor inventory control can result in overstocking or stock shortages, both of which ultimately reduce profitability. Understanding how each turnover component contributes to profitability is therefore essential for developing evidence-based managerial strategies.

Another critical issue lies in the inconsistency of empirical findings in prior studies, which complicates the formulation of clear managerial guidelines. Some research suggests that cash turnover does not significantly affect profitability because firms may retain excess cash as a precautionary measure, thereby limiting its contribution to revenue generation (Mashud et al., 2021; Hidayah & Irmani, 2023). Conversely, other studies emphasize the importance of liquidity in supporting operational stability and firm growth (Kamel & Sahid, 2021). These contrasting perspectives indicate that the relationship between cash turnover and profitability is context-dependent and may vary across industries and economic cycles. In the food and beverage subsector—characterized by demand volatility, perishable inputs, and fluctuating raw material prices—examining these relationships becomes particularly relevant.

The literature also offers several approaches for improving profitability through enhanced working capital management. Firms are encouraged to strengthen receivable collection systems by adopting stricter credit policies, implementing digital invoicing platforms, and providing incentives for early payments, which have been shown to accelerate cash inflows and stabilize liquidity (Liu & Zhang, 2021; Lone & Bhat, 2024). Additionally, optimizing inventory management through demand forecasting technologies, just-in-time practices, and systematic supplier evaluations can reduce holding costs and align inventory levels with market demand, thereby supporting profitability.

More broadly, studies on financial literacy, managerial competence, and financial self-efficacy provide complementary insights into how financial decision-making quality may influence working capital efficiency. Research by Kartawinata et al. (2021) and Jannatun (2023) highlights the role of financial knowledge and attitudes in shaping financial management behavior, including decisions related to cash, receivables, and inventory. Furthermore, financial self-efficacy has been identified as a factor that strengthens the relationship between financial literacy and effective financial behavior (Wahyuningsih et al., 2024; Widyakto et al., 2022). Although these behavioral variables are not explicitly tested in the present model, they offer a theoretical foundation for understanding why firms with similar financial structures may exhibit different levels of turnover efficiency and profitability.

Studies focusing on financial behavior and financial capability further support the notion that decision-makers with stronger financial competence tend to manage liquidity, budgeting, and risk more effectively (Surwanti et al., 2024; Ramadani et al., 2023). When extended to the organizational context, these findings suggest that managerial capability may indirectly shape

turnover outcomes through financial policy choices and operational controls. However, most prior studies emphasize individual or household financial behavior rather than organizational financial performance. This mismatch reveals a critical research gap: limited empirical evidence exists that directly links working capital turnover efficiency to profitability in Indonesian food and beverage manufacturing firms under post-pandemic conditions, despite the sector's strategic economic role.

Given these gaps, this study aims to examine the effect of cash turnover, receivable turnover, and inventory turnover on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange during the 2021–2023 period. The study offers novelty by providing post-pandemic, sector-specific empirical evidence on working capital efficiency in an emerging market context. It also contributes to the literature by assessing whether classical financial theories on turnover and profitability remain applicable under altered economic conditions. The findings are expected to provide practical insights for managers and contribute to the development of more effective working capital strategies in the food and beverage manufacturing sector.

METHODOLOGY

This research adopts a quantitative explanatory design aimed at empirically testing the causal influence of cash turnover, receivable turnover, and inventory turnover on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period. A quantitative approach is appropriate because the study emphasizes numerical measurement, hypothesis testing, and statistical inference using secondary financial data. The explanatory nature of the research allows for the identification of cause–effect relationships between working capital turnover variables and return on assets (ROA), thereby strengthening the analytical rigor and interpretability of the findings.

The population of this study consists of all food and beverage manufacturing firms consistently listed on the IDX. This sector is selected due to its strong reliance on efficient working capital management, given rapid production cycles, high inventory mobility, and intense competitive pressure. The sample is determined using purposive sampling based on several criteria: firms must be continuously listed from 2021 to 2023, publish complete audited annual financial reports, and provide sufficient information to calculate cash turnover, receivable turnover, inventory turnover, and profitability indicators. Based on these criteria, the final sample comprises 36 firm-year observations. Although the sample size is relatively small, it reflects the limited number of firms that meet the strict data availability and consistency requirements within the selected subsector, particularly in the post-pandemic period.

This study relies exclusively on secondary data obtained from audited annual reports downloaded from the official IDX website (www.idx.co.id) and from each firm's investor relations portal. The use of audited financial statements ensures data reliability, objectivity, and comparability across firms. Cash turnover is operationalized as net sales divided by average cash, representing the efficiency with which firms utilize cash to support operational activities. Receivable turnover is measured as net credit sales divided by average accounts receivable, indicating the effectiveness of firms in converting receivables into cash. Inventory turnover is calculated by dividing the cost of goods sold by average inventory, reflecting the speed at which inventory is transformed into revenue. Profitability is primarily proxied by return on assets (ROA), measured as net income divided by total assets, as ROA captures management efficiency in utilizing total assets to generate profits.

Data collection is conducted systematically by identifying eligible firms, retrieving annual financial statements for each year of the study period, extracting relevant financial variables, and compiling the processed data into a structured dataset. The primary analytical technique employed is multiple linear regression, which enables the estimation of both partial and simultaneous effects of the independent variables on profitability. The regression model is specified as:

$$ROA = \beta_0 + \beta_1 (Cash\ Turnover) + \beta_2 (Receivable\ Turnover) + \beta_3 (Inventory\ Turnover) + \varepsilon$$

This model allows for the assessment of the relative contribution of each working capital component to profitability while controlling for the presence of other turnover variables. Prior to

hypothesis testing, classical assumption tests are performed to ensure the validity of the regression estimates. Normality of residuals is examined using the Kolmogorov–Smirnov test. Multicollinearity is assessed through tolerance and variance inflation factor (VIF) values, with tolerance values above 0.10 and VIF values below 10 indicating the absence of serious multicollinearity. Heteroscedasticity is evaluated using scatterplot analysis and the Glejser test to verify the homogeneity of error variances. Autocorrelation is tested using the Durbin–Watson statistic, where values close to 2 indicate that residuals are independent. These diagnostic procedures are essential to ensure unbiased and statistically reliable regression results.

Hypothesis testing is conducted using both t-tests and F-tests. The t-test evaluates the partial effect of each independent variable on profitability, with significance levels below 0.05 indicating statistically meaningful relationships. The F-test assesses the joint influence of all independent variables on ROA. Additionally, the coefficient of determination (R^2) is used to measure the proportion of variance in profitability explained by the model, providing an indication of its overall explanatory power. To enhance the robustness of the findings, supplementary analyses are conducted by re-estimating the regression model using an alternative profitability proxy, namely return on equity (ROE). The use of ROE allows for verification of whether the observed relationships remain consistent when profitability is viewed from a shareholder-oriented perspective. Consistent results across different profitability measures strengthen the credibility and stability of the empirical conclusions.

Several methodological limitations should be acknowledged. First, the relatively small sample size may limit the generalizability of the findings beyond the food and beverage manufacturing subsector. Second, the study relies solely on accounting-based profitability measures, which may not fully capture market-based performance or long-term firm value. Third, the regression model does not explicitly incorporate macroeconomic variables or firm-specific controls such as firm size or leverage, which may also influence profitability. These limitations provide opportunities for future research to employ larger samples, longer observation periods, additional control variables, and alternative estimation techniques. Because the study utilizes publicly available secondary data, ethical risks are minimal. Nevertheless, the research adheres to academic integrity principles by ensuring accurate data processing, transparent reporting, and responsible data handling. Overall, the methodological framework is designed to generate robust empirical evidence on the relationship between working capital efficiency and profitability in Indonesia's food and beverage manufacturing sector.

RESULTS

This chapter presents the empirical results derived from the analysis of food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2021–2023. A total of 26 companies constituted the population; however, not all met the criteria of data completeness. One company failed to publish financial statements consistently across the three-year period, while thirteen others lacked complete information related to cash, receivables, inventory, and sales. After applying purposive sampling, twelve companies were identified as eligible. Considering three years of observation, the final dataset consisted of 36 samples, forming the basis of subsequent analyses.

Descriptive Statistics

Descriptive statistics provide an overview of the distribution and central tendency of the variables used in this study. The statistical summary is presented below:

Table 1 Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	36	-9.54	16.74	4.7994	5.67792
Cash Turnover	36	1.87	74.29	18.0731	17.15625
Receivables Turnover	36	1.51	14.14	8.5589	2.87008

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Inventory Turnover	36	1.71	20.87	7.0530	4.68921
Valid N (listwise)	36	—	—	—	—

The descriptive results indicate substantial variation across observations. Profitability (Y), measured using ROA, ranges from –9.54 to 16.74 with a mean of 4.7994 and a standard deviation of 5.67792, reflecting considerable heterogeneity in financial performance. Cash turnover (X1) displays the widest range, from 1.87 to 74.29, with a relatively high standard deviation of 17.15625, signifying diverse liquidity efficiency across firms. Receivable turnover (X2) varies between 1.51 and 14.14, averaging 8.5589 with a standard deviation of 2.87008. Inventory turnover (X3) ranges from 1.71 to 20.87, with a mean of 7.0530, indicating different levels of inventory movement and management efficiency. These descriptive trends highlight that the sampled firms differ substantially in operational performance, thereby strengthening the validity of regression analysis.

Classical Assumption Tests

Normality Test

Normality was assessed using both the histogram and Normal P–P Plot. The histogram exhibits a bell-shaped pattern, indicating that the residuals are approximately normally distributed.

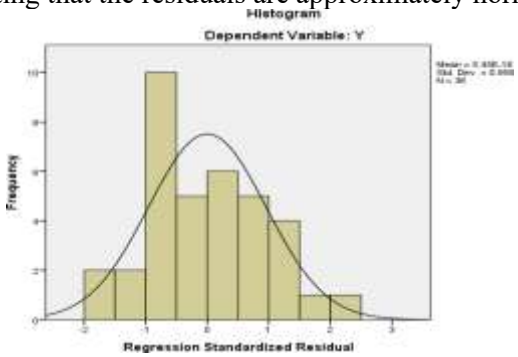

Figure 1 Histogram

Similarly, the Normal P–P Plot shows that residual points align closely with the diagonal line, reinforcing the conclusion that the data distribution satisfies normality assumptions.

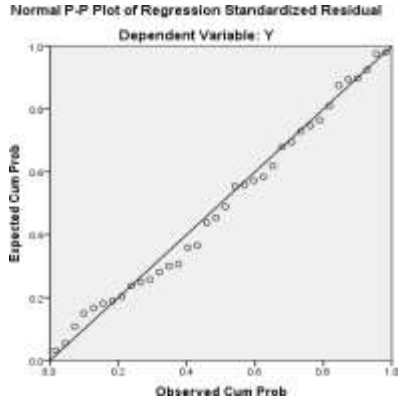

Figure 2 Normal P–P Plot

Multicollinearity Test

Multicollinearity was evaluated through tolerance and Variance Inflation Factor (VIF) values. The results are shown below:

Table 2 Multicollinearity Test Results

Model	Variable	Tolerance	VIF
1	Cash Turnover	0.956	1.046
1	Receivables Turnover	0.994	1.006
1	Inventory Turnover	0.950	1.052

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Tolerance values exceed 0.10 and VIF values remain below 10, confirming that no multicollinearity exists among cash turnover, receivable turnover, and inventory turnover.

Heteroskedasticity Test

Heteroskedasticity was evaluated using a scatterplot of residuals against predicted values.

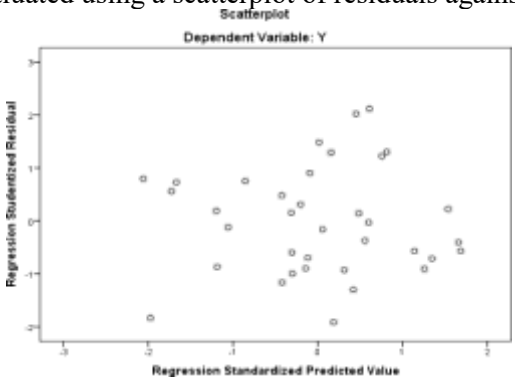

Figure 3 Scatterplot of Diagram

The randomly dispersed points above and below zero indicate that the regression model does not suffer from heteroskedasticity, confirming homoscedastic residuals.

Hypothesis Testing

Multiple Linear Regression

Multiple regression was performed to examine the influence of the independent variables on profitability. The regression coefficients are summarized below:

Table 3 Multiple Linear Regression Coefficients

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	-3.625	2.794	—	-1.297	0.204
Cash Turnover	-0.084	0.048	-0.253	-1.742	0.091
Receivables Turnover	0.743	0.281	0.376	2.642	0.013
Inventory Turnover	0.507	0.176	0.419	2.879	0.007

The resulting equation is:

$$\mathbf{Y = -3.625 - 0.084X_1 + 0.743X_2 + 0.507X_3}$$

Cash turnover (X1) exhibits a negative coefficient (–0.084) with p = 0.091, indicating no significant effect on profitability. Receivable turnover (X2) has a positive and significant coefficient (0.743; p = 0.013), signifying that faster receivable collection enhances profitability. Inventory turnover (X3) also displays a positive and significant coefficient (0.507; p = 0.007), demonstrating that higher inventory efficiency leads to improved profitability. These findings imply that among the three working capital turnover indicators, receivable turnover and inventory turnover are significant predictors of profitability, while cash turnover is not.

t-Test (Partial Test)

Table 4 t-Test Results

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	-3.625	2.794	—	-1.297	0.204
Cash Turnover	-0.084	0.048	-0.253	-1.742	0.091

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Receivables Turnover	0.743	0.281	0.376	2.642	0.013
Inventory Turnover	0.507	0.176	0.419	2.879	0.007

Partial testing confirms that X2 and X3 significantly influence profitability, whereas X1 does not. Thus, H2 and H3 are accepted, and H1 is rejected.

F-Test (Simultaneous Test)

The F-test reveals a significance value of 0.002, demonstrating that all independent variables collectively influence profitability.

Table 5 ANOVA (F-Test)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	402.856	3	134.285	5.923	0.002
Residual	725.501	32	22.672	—	—
Total	1128.358	35	—	—	—

Coefficient of Determination (R^2)

The model summary indicates $R^2 = 0.357$.

Table 6 R-Squared Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	**0.598**	**0.357**	**0.297**	**4.76150**

The coefficient of determination (R^2) of 0.357 indicates a **moderate explanatory power** of the regression model. This result suggests that 35.7% of the variation in profitability (ROA) can be explained by cash turnover, receivables turnover, and inventory turnover, while the remaining 64.3% is attributable to other firm-specific and external factors not included in the model, such as cost structure, pricing strategy, market conditions, and operational efficiency.

The study analyzes 36 firm-year observations from 12 food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) over the 2021–2023 period. Overall, the findings provide a consolidated view of how key working capital turnover variables relate to profitability in the Indonesian food and beverage subsector during the post-pandemic period. Descriptive statistics reveal substantial heterogeneity across firms in both financial performance and liquidity efficiency. Profitability, as measured by ROA, shows a relatively wide dispersion, reflecting differences in firms' ability to generate returns from their asset bases.

Among the working capital indicators, cash turnover exhibits the greatest variability, indicating heterogeneous liquidity management practices across firms. Receivables turnover and inventory turnover also display considerable dispersion, suggesting differences in credit policies, collection efficiency, and inventory management systems. Although the analysis is primarily based on tabular descriptive statistics, the absence of additional visualizations—such as trend graphs or boxplots—limits the ability to visually capture distributional patterns and temporal dynamics. Future studies are therefore encouraged to incorporate graphical analyses to enhance interpretability and comparative insights.

Having established that the regression model satisfies all classical assumptions and is statistically reliable, the analysis proceeds to examine the empirical relationships between working capital turnover components and profitability. This transition allows the discussion to move from model validity toward substantive interpretation of the estimated coefficients, thereby clarifying how variations in cash turnover, receivables turnover, and inventory turnover are associated with firms' profit-generating performance.

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Classical assumption testing confirms that the regression model is statistically valid. The residuals exhibit an approximately normal distribution, no multicollinearity is detected as indicated by acceptable tolerance and VIF values, and heteroskedasticity is absent based on the scatterplot pattern. These diagnostic results confirm the model's suitability for hypothesis testing.

The regression analysis reveals differentiated effects of working capital components on profitability. Cash turnover shows a negative but statistically insignificant relationship with profitability, indicating that variations in cash utilization do not materially affect profit generation within the industry's relatively stable operational cycle. In contrast, receivables turnover exerts a positive and significant effect, suggesting that faster collection of credit sales improves liquidity and supports reinvestment. Inventory turnover also has a significant positive impact on profitability, highlighting the importance of efficient inventory management in reducing holding costs, minimizing spoilage, and accelerating revenue realization.

These findings are supported by partial t-tests, which confirm that only receivables turnover and inventory turnover significantly influence profitability, while cash turnover does not. The simultaneous F-test indicates that the three turnover variables jointly affect profitability. The coefficient of determination ($R^2 = 0.357$) suggests moderate explanatory power, with 35.7% of profitability variation explained by the model and the remainder attributable to other operational, strategic, or market-related factors. Overall, the results indicate that profitability in Indonesia's food and beverage manufacturing sector is driven more by receivables and inventory efficiency than by cash turnover alone, underscoring the strategic importance of integrated working capital management.

DISCUSSION

This section discusses the empirical findings by integrating the regression results with relevant theoretical perspectives and prior empirical evidence. Beyond confirming statistical significance, the discussion seeks to explain why working capital components affect profitability differently in the food and beverage manufacturing subsector, particularly under post-pandemic conditions. By contrasting the results with existing studies and grounding the interpretation in Working Capital Management Theory and Signaling Theory, this section highlights the study's theoretical implications, practical relevance, and contribution to the ongoing debate on working capital efficiency and firm profitability.

The Effect of Cash Turnover on Profitability

Cash turnover represents how efficiently a firm circulates its cash within the working capital cycle to generate returns. According to Working Capital Management Theory, efficient management of cash, receivables, and inventory should strengthen liquidity and support profitability (Deloof, 2003). However, the regression results of this study indicate that cash turnover has a negative and statistically insignificant effect on profitability, leading to the rejection of H1. This finding suggests that fluctuations in cash turnover do not substantially contribute to profit generation in food and beverage manufacturing firms. This result is theoretically meaningful rather than anomalous. In the food and beverage subsector, operational cycles tend to be relatively stable and repetitive, with predictable procurement, production, and sales patterns. As a result, marginal improvements in cash circulation do not necessarily translate into higher profitability. Instead, profitability is more strongly driven by cost efficiency, production scale, pricing strategies, and market competitiveness (Brigham & Ehrhardt, 2017). This explains why cash turnover, as a liquidity-oriented indicator, plays a less dominant role compared to operational efficiency indicators.

From a theoretical contribution perspective, this finding nuances Working Capital Management Theory by indicating that cash efficiency alone is not always a direct profitability driver in sectors with stable cash cycles. Rather than contradicting the theory, the result suggests that the profitability impact of cash turnover is conditional on industry characteristics and operational volatility. From the perspective of Signaling Theory (Spence, 1973), the insignificance of cash turnover implies that liquidity efficiency provides a weak signal to investors in this subsector, as it does not sufficiently capture value creation potential. Compared with previous studies that report a significant effect of

cash turnover on profitability, this divergence may stem from differences in economic context, firm maturity, and post-pandemic liquidity behavior. Many firms may intentionally hold excess cash as a buffer against uncertainty, reducing the sensitivity of profitability to cash circulation. From a policy and managerial standpoint, this implies that firms should prioritize strategic cash sufficiency rather than aggressively accelerating cash turnover at the expense of operational stability.

The Effect of Receivables Turnover on Profitability

Receivables turnover reflects how quickly firms convert credit sales into cash. Consistent with Working Capital Management Theory, efficient receivables management enhances cash flow stability and supports ongoing operational activities (Deloof, 2003). The empirical findings show that receivables turnover has a positive and statistically significant effect on profitability, supporting H2. This result highlights receivables management as a critical profitability lever in the food and beverage manufacturing industry. Unlike cash turnover, receivables turnover directly influences liquidity timing and credit risk exposure. Firms that enforce disciplined credit policies and maintain effective collection systems experience faster cash inflows, reduced default risk, and greater flexibility to reinvest in production capacity or innovation. In post-pandemic conditions—where customer payment behavior may be more uncertain—efficient receivables turnover becomes even more strategically important.

From a signaling perspective, strong receivables turnover sends a credible signal of managerial competence, financial discipline, and reliable customer relationships (Spence, 1973). Investors are more likely to interpret efficient receivables management as an indicator of sustainable earnings quality rather than short-term liquidity manipulation. This finding reinforces prior evidence reported by Ginting et al. (2023) and Djohan (2022), yet extends their conclusions by situating receivables efficiency as a primary driver of profitability in a post-pandemic manufacturing context. Theoretically, this result strengthens the argument that not all working capital components contribute equally to profitability. Practically, it suggests that managers should focus on optimizing credit terms, leveraging digital billing systems, and strengthening collection enforcement to enhance financial performance.

The Effect of Inventory Turnover on Profitability

Inventory turnover measures how effectively firms manage and sell inventory. According to Operational Efficiency Theory, efficient inventory flow reduces holding costs, minimizes spoilage risk, and supports profitability (Heizer & Render, 2014). The results indicate that inventory turnover has a positive and statistically significant effect on profitability, confirming H3. This finding is particularly salient in the food and beverage industry, where inventory perishability and demand volatility impose substantial operational risks. High inventory turnover reflects not only strong sales performance but also effective demand forecasting, supply chain coordination, and stock monitoring systems. Efficient inventory management allows firms to respond quickly to market changes while minimizing waste and storage costs.

From a theoretical standpoint, this result reinforces the integration of Operational Efficiency Theory into the working capital–profitability framework. Under Signaling Theory, high inventory turnover provides a strong operational signal to investors, indicating effective supply chain management and robust market demand (Spence, 1973). While this finding aligns with Nasution et al. (2023) and Chitam and Witono (2024), it contrasts with Ginting et al. (2023), who reported weaker inventory effects. Such differences may reflect variations in firm scale, inventory technology adoption, or product perishability across samples. Policy-wise, the results suggest that investment in real-time inventory systems, supplier integration, and demand analytics can yield tangible profitability gains, particularly in sectors sensitive to inventory obsolescence.

Joint Effect of Cash Turnover, Receivables Turnover, and Inventory Turnover on Profitability

The simultaneous F-test confirms that cash turnover, receivables turnover, and inventory turnover jointly exert a statistically significant effect on profitability. This finding underscores the importance of integrated working capital management rather than isolated optimization of

individual components. According to Working Capital Management Theory, firms that harmonize cash flow control, credit management, and inventory movement are better positioned to achieve sustainable financial performance (Deloof, 2003; Kieschnick et al., 2013).

From a signaling perspective, coherent working capital performance communicates operational discipline, financial resilience, and effective internal control mechanisms (Spence, 1973). Such signals are particularly valuable in post-pandemic environments characterized by heightened uncertainty and supply chain disruptions. This joint effect suggests that profitability gains are maximized not through aggressive management of a single turnover component but through coordinated efficiency across the entire working capital cycle. Theoretically, this finding contributes by demonstrating that working capital components function as a system, rather than as independent levers. Practically, it implies that managerial policies should be designed holistically, aligning cash policies, credit strategies, and inventory controls to support long-term profitability and competitive positioning.

CONCLUSION

This study examined the influence of cash turnover, receivables turnover, and inventory turnover on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange during the 2021–2023 period. The empirical findings demonstrate that cash turnover does not exert a significant effect on profitability, indicating that liquidity fluctuations in this subsector do not directly drive earnings. This outcome reflects the relatively stable operational cycles of the industry and its stronger dependence on production efficiency, cost management, and market competitiveness rather than on the speed of cash circulation alone. In contrast, receivables turnover shows a positive and significant impact on profitability, confirming that efficient credit management and timely collection play a crucial role in improving cash flow stability, reducing credit risk, and supporting reinvestment activities. Inventory turnover also exhibits a significant positive relationship with profitability, highlighting the importance of effective inventory control in minimizing holding costs, reducing losses from unsold or perishable goods, and accelerating operating cash flows. When assessed simultaneously, the three working capital components significantly influence profitability, reinforcing the strategic importance of integrated working capital management rather than isolated optimization of individual elements.

From a managerial perspective, these findings suggest several actionable implications. First, managers should prioritize strengthening receivables management by tightening credit policies, segmenting customers based on credit risk, and adopting digital invoicing and collection systems to shorten payment cycles. Second, firms are encouraged to invest in inventory management practices such as demand forecasting tools, real-time stock monitoring, and closer coordination with suppliers to enhance inventory turnover and reduce inefficiencies. Third, rather than aggressively accelerating cash turnover, firms should focus on maintaining optimal cash buffers that support operational continuity and risk mitigation, particularly in a post-pandemic environment characterized by uncertainty.

From a policy and governance standpoint, the results imply that performance evaluation frameworks should place greater emphasis on receivables and inventory efficiency as key indicators of operational strength in the food and beverage manufacturing sector. Collectively, these recommendations underscore that profitability improvements are more likely to be achieved through disciplined credit management and inventory optimization than through cash circulation alone. Despite its contributions, this study has limitations, including its focus on a single industrial subsector, a relatively small sample size, and reliance on accounting-based profitability measures. Future research is encouraged to incorporate market-based performance indicators, macroeconomic variables, operational efficiency metrics, or cross-sector comparative analyses to further elucidate the mechanisms linking working capital management and profitability.

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