

The Effect of Working Capital Management on Profitability With Liquidity as Moderation

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ABSTRACT

This study seeks to investigate and assess the impact of working capital management, including cash turnover ratio, accounts receivable turnover, and inventory turnover, on profitability (RoA), with liquidity represented by current assets as a moderating factor, in agricultural companies listed on the Indonesia Stock Exchange (BEI) from 2019 to 2022. The primary motivation for selecting agricultural companies for this study is to examine their inventory management practices. This research extends previous studies by introducing liquidity as a moderating variable. Agricultural companies often encounter unique financial challenges, particularly regarding the management of working capital and its effects on profitability and liquidity. The primary objective of every company is to achieve profitability to ensure its sustainability. Additionally, liquidity, which measures a company's ability to meet current obligations with current assets, plays a crucial role in enhancing the effectiveness of working capital management. The study population comprises 44 agricultural companies, with a purposive sampling method resulting in a sample size of 23 companies. This quantitative research employs an explanatory approach, utilizing secondary data collected from company financial reports. Data analysis involves multiple linear regression analysis and moderated regression analysis (MRA) using SPSS 26 software. The research findings indicate a partially negative impact of cash turnover and inventory turnover on profitability, while accounts receivable turnover significantly positively influences profitability in agricultural companies listed on the IDX from 2019 to 2022. However, liquidity as a moderating variable is found to be ineffective in moderating the influence of working capital management on the profitability of agricultural companies listed on the IDX during the specified period.

Keywords: cash turnover; inventory turnover; liquidity; profitability; receivables turnover; working capital management

INTRODUCTION

Indonesia boasts abundant natural resources, positioning itself as an agrarian nation with agricultural products contributing significantly, ranging from 14.43% to 15% of the total gross domestic product (GDP) according to (Natalia, 2020). Each year brings forth promising opportunities for companies across various sectors, particularly in agriculture, as noted by (Gischa, 2022). Agriculture involves the cultivation or production of food, fibers, and other goods in the sector, relying heavily on human labor. Within agriculture, assets encompass both immature plants (TBM) and mature plants (TM). Hence, the focus of this study is on companies' inventory, which includes assets available for sale, goods in production or transit, and materials or equipment for operational and administrative purposes. Inventory accounts comprise various types such as plant products, goods in process, and raw materials. Agricultural firms play a pivotal role in the economic landscape, experiencing transformative shifts driven by technological advancements and evolving market dynamics, contributing significantly to Indonesia's economic prowess. Consequently, companies, whether legal entities or not, require capital to sustain their operations, covering expenses like labor wages and raw material procurement, as highlighted by

(Wibowo & Fitria, 2023). Nonetheless, agricultural companies encounter distinct financial challenges, particularly concerning working capital management's impact on profitability and liquidity.

Agricultural companies primarily aim to achieve profitability, ensuring the company's sustainability. Profitability denotes the utilization of assets generated by a company by aligning income with expenses, as explained by (Kurniawan & Ariyani, 2021). A stable profitability ratio enables businesses to maintain operations and attract investments. Conversely, inadequate profitability may hinder business continuity, as highlighted by (Irianti, 2021). Profitability's significance underscores the need for effective management practices to meet set targets and achieve substantial profits, as emphasized by APW & Indah (2020). Pursuing maximum profits enables companies to enhance the welfare of stakeholders, invest in new ventures, and enhance product quality, as noted by Rahayu et al. (2022). This study employs the Return on Assets (RoA) ratio to gauge an agricultural company's profit level concerning its shares on the Indonesian Stock Exchange. A higher RoA indicates more efficient asset utilization, resulting in greater profits, or vice versa, as suggested by (Shalini et al., 2022). Working capital management, comprising cash turnover, receivables turnover, and inventory turnover ratios, influences a company's profitability.

Liquidity according to (Puspita & Hartono Ulil, 2018) as cited in (Supramono & Nanna, 2022), liquidity refers to a company's capability to settle current debts and meet daily operational requirements. Assessing liquidity through the current ratio indicates strong backing for short-term creditors and efficient utilization of working capital, as noted by (Yahya, 2019). Therefore, liquidity plays a pivotal role in assessing company performance, reflecting its ability to achieve success, as highlighted by (Situmorang et al., 2023). As a moderating variable, liquidity, measured by the current ratio, was incorporated into the research to evaluate company performance. Theoretically, it determines whether liquidity strengthens or weakens the independent variable of working capital management, including cash turnover, accounts receivable turnover, and inventory turnover, on the dependent variable of profitability. Additionally, liquidity, which gauges a company's capacity to fulfill current obligations with existing assets, plays a crucial role in enhancing the efficacy of working capital management.

Working capital management presents a challenge for companies, as it aims to ensure adequate liquidity to cover short-term financial obligations arising from operational activities and maximize profitability (Aldubhani et al., 2022). It plays a pivotal role in determining how current assets are financed and managed, involving decisions regarding the quantity and composition of these assets according to (Rahayu et al., 2022). In this study, the indicators for assessing working capital management include cash turnover, accounts receivable turnover, and inventory turnover, which determine the allocation of operational and investment capital. Cash turnover is utilized to meet obligations and assess cash availability relative to company sales (Sari & Alwi, 2023). Accounts receivable turnover measures the frequency of funds invested in accounts receivable over a specific period or the time taken to collect receivables (Sari & Alwi, 2023). Meanwhile, inventory turnover evaluates the average duration needed by a company to sell inventory from raw materials to finished goods (Rahayu et al., 2022).

Motivated by the imperative of enhancing company profits and achieving success, this study focuses on investigating the impact of working capital management, encompassing cash turnover, receivables turnover, and inventory turnover, on profitability (RoA), with Liquidity (CR) serving as the moderating variable. Previous studies on profitability have yielded varied results due to differences in research variables and methodologies. Building upon prior research conducted by (Irmawati, 2023), titled "The Effect of Working Capital Management and Liquidity on Profitability in the Manufacturing Industry Listed on the Indonesian Stock Exchange in 2019-2021," this study seeks to expand our understanding of these relationships within the agricultural sector. Irmawati's research revealed that cash turnover significantly influences profitability, while receivables turnover does not, and inventory turnover has a

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significant impact. Additionally, liquidity was found to significantly influence profitability. Hence, it is evident that efficient operation is still attainable, but attention to receivables management remains crucial for companies. Similarly, the study builds upon the work of (Simarmata, 2020), which demonstrated a positive and significant relationship between cash turnover, inventory turnover, and receivables turnover with the profitability of plantation companies listed on the IDX. Given these findings and insights from prior research, cash turnover remains a pertinent indicator of operational efficiency and effective cash management. Receivables turnover reflects the company's ability to expedite receivables collection, thereby reducing default risks and potentially enhancing profitability by freeing up resources for investment or operational needs. Additionally, effective inventory turnover management can bolster operational efficiency, minimize storage costs, and ensure product availability, consequently boosting profitability by optimizing sales and mitigating losses from unsold inventory. Notably, this study introduces the use of the liquidity variable as a moderating factor, which was not previously explored in prior research. The inclusion of liquidity as a moderating variable is crucial for assessing company performance comprehensively and can shed light on its role in strengthening or possibly failing to moderate the relationship between working capital management and profitability.

Agency theory was first proposed in 1976 by Jensen and Meckling. This theory discusses the relationship between management (agent) and owner (principle) (Jensen, 2003). This theory is explained related to the contract relationship between agents and owners, where agents as managers are employed by owners / shareholders to manage their assets or business. Prosperity within the company and obtaining increased profits attract the attention of shareholders to enter into contracts with agents. Agents / managers can convey information to owners / shareholders about cash turnover, accounts receivable turnover, inventory turnover, profitability (RoA), and Liquidity (CR). According to (Vernimmen *et al.*, 2011) in (Hasundungan & Herawati, 2018), explained that shareholders giving orders to managers entrusted with managing funds in the company can also maximize capital value, increase company size, profitability and minimize risks to invested capital.

This research was conducted on agricultural companies listed on the Indonesia Stock Exchange (BEI) during the 2019–2022 period, with the aim of testing and confirming the impact of capital management, such as cash turnover, revenue turnover, and inventory turnover, on profitability (RoA). Liquidity, represented by current assets, is used as a moderating variable. This research collects data on working capital management, including cash turnover, collection turnover, inventory turnover, profitability and liquidity. In doing so, the researcher seeks to provide an overview of the research conceptual framework that will result in a better understanding of the relationships between the variables studied:

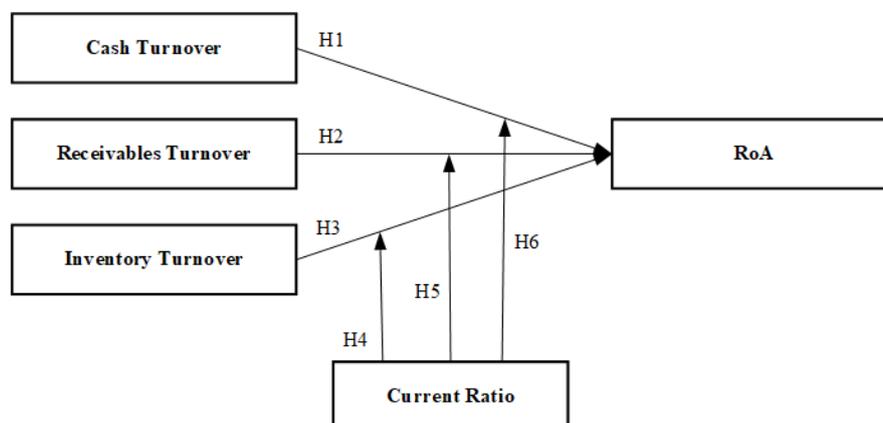


Figure 1: Conceptual Framework
Source: Processing researcher data (2023)

Hypotheses Development

The Effect of Cash Turnover on Profitability

Cash turnover reflects how effectively cash generates income within a specific period. A higher cash turnover ratio indicates greater profitability for the company (Manurung *et al.*, 2021). Cash balances and cash equivalents, like checking accounts, are part of cash, meaning highly liquid investments that can quickly convert to cash without significant value fluctuations in the short term, as per Financial Accounting Standards (Andriani & Supriono, 2022). The agency theory suggests that managers need motivation and drive to maintain efficient cash turnover as it directly impacts company profitability. Observing a company's cash turnover level, having a larger cash amount positively influences its profitability (Wibowo & Fitria, 2023). Thus, effective cash management enables companies to finance operational costs with large cash reserves potentially increasing sales volume, leading to higher cash turnover and profitability (Irmawati, 2023). This aligns with research (Andriani & Supriono, 2022) showing a significant negative impact of cash turnover on profitability in partially manufacturing companies listed on the IDX. Based on this concept, the hypothesis of this research is:

H₁: The profitability (RoA) of agricultural enterprises listed on the Indonesia Stock Exchange in 2019–2022 is significantly impacted negatively by cash turnover

The Effect of Receivables Turnover on Profitability

Indicators of receivables turnover, according to (Meidyawan & Prasetyo, 2022), show how frequently money invested in receivables is repaid in a given period or how lengthy the average receivables collection time is in a given period. The industry norm for a receivables turnover rate is fifteen times, as stated by (Kasmir, 2016) cited in (Sari & Alwi, 2023). This rate may be computed by dividing net credit sales by the average receivables amount. The agency theory highlights that in order to preserve cash flow and business success, competent and accountable managers would make every effort to handle receivables properly. Accordingly, a rise in the turnover of accounts receivable suggests that the capital dedicated to accounts receivable has become more efficient, allowing this money to be reallocated to other endeavors that have the potential to generate more profits and so boost the profitability of the business (Hantono *et al.*, 2019). Profitability is significantly positively impacted by receivables turnover, according to research done by (Simarmata, 2020) on plantation firms listed on the IDX. From this explanation, the research hypothesis can be formulated as follows:

H₂: In agricultural companies listed on the Indonesia Stock Exchange in 2019–2022, receivables turnover has a positive and significant impact on profitability (RoA)

The Effect of Inventory Turnover on Profitability

A ratio called inventory turnover is used to evaluate how long it typically takes a business to sell its inventory, ranging from raw materials to completed items (Rahayu *et al.*, 2022). According to (Manurung *et al.*, 2021), the inventory turnover rate calculation shows how effective inventory management is because a higher rate of inventory turnover equates to a shorter time capital tied up in inventory. This means that capital is required in order to increase inventory turnover to meet a given sales volume. work with less resources. This explanation links agency theory to the idea that prudent managers should employ inventory rules to speed up inventory turnover, which can improve cash flow and profitability, and lower storage costs and obsolescence risk. This study supports that conducted by (Rahayu *et al.*, 2022),

which found that inventory turnover significantly and negatively affects profitability in businesses that are indexed LQ45 on the BEI. From this explanation, the hypotheses in this study are:

H₃: In agricultural companies listed on the Indonesia Stock Exchange in 2019–2022, inventory turnover has a significant negative effect on profitability (RoA)

The Effect of Cash Turnover on Profitability with Liquidity as A Moderating Variable

The ability of a business to pay off short-term debt at a certain ratio is known as liquidity, and it is related to both the business's overall financial health and its capacity to turn specific current assets into cash (APW & Indah, 2020). Through this explanation, the agency theory suggests that responsible managers strive to effectively manage the company's cash to minimize liquidity risk and enhance profitability. Liquidity, acting as a moderating variable, helps understand how the company's liquidity level influences the relationship between working capital management and profitability. Adequate liquidity can positively impact cash turnover, leading to increased profitability. Assessing company performance by evaluating the current ratio also reflects improved liquidity. Conversely, lower liquidity may limit agricultural companies' ability to optimize the effect of cash turnover on profitability (Wibowo & Fitria, 2023). This research aligns with the findings of (Parapat & Hutagalung, 2023), which indicate that liquidity does not moderate in the relationship between cash turnover and profitability. The study utilized the residual method and focused on plantation sub-sector companies listed on the BEI during the 2018-2022 period. From this explanation, the hypotheses in this study are:

H₄: The link between the impact of cash turnover on profitability (RoA) in agricultural enterprises listed on the Indonesia Stock Exchange in 2019–2022 cannot be moderated by liquidity

The Effect of Receivables Turnover on Profitability with Liquidity as A Moderating Variable

Understanding how a company's liquidity level influences the relationship between working capital management and profitability can be done by paying attention to liquidity as a moderating variable. High liquidity can reduce credit risk, increase profitability, and strengthen the positive effects of receivable turnover, and vice versa (Wibowo & Fitria, 2023). Liquidity is the company's ability to meet cash needs to finance daily operations and pay short-term debt as working capital (Riani *et al.*, 2019). According to agency theory, prudent managers would make an effort to effectively manage receivables in order to lower credit risk. As a moderating variable, liquidity helps explain how a company's liquidity level affects the profitability and working capital management connection. Receivable turnover may minimize credit risk and boost profitability when it is optimized by having adequate liquidity. Higher profitability results from a quicker turnover of receivables, and the current ratio will be used to evaluate the success of the business more often. Conversely, a company's capacity to swiftly and effectively turn receivables into cash may be hampered by limited liquidity (Wibowo & Fitria, 2023). In line with study by (Meidyawan & Prasetyo, 2022), it shows that liquidity does not have a significant effect on the relationship between the influence of receivables turnover on profitability in Regional Owned Enterprises and the Gresik Regency Regional Public Service Agency. From this explanation, the hypotheses in this study are:

H₅: The impact of accounts receivable turnover on profitability (RoA) in agricultural companies listed on the Indonesia Stock Exchange from 2019 to 2022 is cannot moderated by liquidity

The Effect of Inventory Turnover on Profitability with Liquidity as A Moderating Variable

As per (Wiagustini, 2014:85) research in (Pradnyaswari & Dana, 2022), liquidity pertains to the capacity of the organization to settle its short-term debt using its present finances. In order to reduce

carrying costs and boost profitability, responsible managers will work to manage inventory effectively, according to the agency theory that is related to this idea. As a moderating variable, liquidity provides an understanding of how a company's level of liquidity influences the relationship between working capital management and profitability. Good liquidity can strengthen the positive impact of inventory turnover. The faster the inventory turnover, the higher the profitability. Conversely, low liquidity can hamper a company's ability to convert inventory into cash quickly and efficiently (Pradnyaswari & Dana, 2022). However, the inability of liquidity to moderate the effect of inventory turnover on company profitability can result in problems such as increased costs, decreased inventory value, investment restrictions, and pressure on credit policies. So in accordance with research by (Parapat & Hutagalung, 2023), the results show that liquidity does not moderate or is not a moderating variable of the relationship between inventory turnover and profitability using the residual method in plantation sub-sector companies listed on the BEI for the 2018 - 2022 period. From this explanation, the hypotheses in this study are:

H₆: The link between inventory turnover and profitability (RoA) in agricultural enterprises listed on the Indonesia Stock Exchange from 2019 to 2022 is not moderated by liquidity

METHOD, DATA, AND ANALYSIS

This study uses a quantitative approach with an explanatory/relationship strategy. The goal is to test hypotheses and provide solutions to the challenges faced. Through explanatory studies, this research explains phenomena through the relationships between variables (Simarmata, 2020). The relationship in research can be symmetrical, causal, and interactive according to (Agung & Yuesti, 2019). The independent variable in this research is working capital management which consists of cash turnover (X1), receivables turnover (X2), and inventory turnover (X3). Liquidity (Z) functions as a moderating variable for profitability (Y), which is the dependent variable. Table 1 provides operational definitions of variables and describes variable measurement indicators:

Table 1. Variable Operational Definition

No	Variable	Definition	Measurement/ Indicator	Scale	Source
1	X1: Cash Turnover	It is clear to see how money rotates many times over a certain period of time due to its ability to generate income.	$\text{Cash Turnover} = \frac{\text{Sale/Net income}}{\text{Average Cash}} \times 100\%$ $\text{Average Cash} = \frac{\text{Initial Cash} + \text{Final Cash}}{2}$	Ratio	(Sari & Alwi, 2023)
2	X2: Receivables Turnover	A ratio that assesses how often money invested in receivables is returned over time, or how long receivables are collected during a period.	$\text{Receivables Turnover} = \frac{\text{Sale/Net income}}{\text{Average Receivables}} \times 100\%$ $\text{Average Receivables} = \frac{\text{Initial Receivables} + \text{Final Receivables}}{2}$	Ratio	(Sari & Alwi, 2023)
3	X3: Inventory Turnover	The ratio is indicated in the normal production cycle, the faster the turn-around, the better because it is considered that sales operations run fas	$\text{Inventory Turnover} = \frac{\text{Cost Of Goods Sold (HPP)}}{\text{Average Inventory}} \times 100\%$ $\text{Average Inventory} = \frac{\text{Initial Inventory} + \text{Final Inventory}}{2}$	Ratio	(Manurung et al., 2021)

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4	Y:Profitability	Profitability is a company that is able to benefit in relation to sales, as well as total assets and own capital	$ROA = \frac{\text{Laba Bersih}}{\text{Total Aset}} \times 100 \%$	Ratio	(Manurung <i>et al.</i> , 2021)
5	Z:Liquidity	Ability to fulfill overdue obligations from outside and inside parties using measurement	$CR = \frac{\text{Aset Lancar}}{\text{Hutang Lancar}} \times 100 \%$	Ratio	(Yahya, 2019)

Source: Processing researcher data (2023)

Profitability, which is defined as the use of business assets generated by linking income and costs, is the dependent variable employed in this study (Kurniawan & Ariyani, 2021). In this study, the independent variables include cash turnover, receivable turnover, and inventory turnover. These variables represent measurements of working capital management ratios. To elucidate each variable: 1) Cash turnover (X1), reflects the efficacy of cash in generating income, indicating how frequently cash is circulated within a specified period (Sari & Alwi, 2023). 2) Receivable turnover (X2), measures how efficiently funds are invested in receivables during a given period, or the duration required to collect receivables (Sari & Alwi, 2023). It is commonly calculated by dividing net credit sales by the average receivables balance, with the industry benchmark often set at 15 times (Sari & Alwi, 2023). 3) Inventory turnover (X3), signifies the pace at which inventory is converted or replenished within the normal production cycle. Higher turnover rates are generally perceived as favorable, indicating swift sales operations (Rahayu et al., 2022).

Liquidity is the variable utilized in this study. A company's ability to meet its commitments to third parties or through the use of liquidity ratio assessments determines its level of success or failure (Riani *et al.*, 2019). A company's current ratio (CR), which measures liquidity, is calculated by contrasting the balance sheet's components – all current assets and all current debt/short-term debt, among others (Irmawati, 2023).

The focus of this study will be on agricultural companies listed on the Indonesia Stock Exchange (BEI) over a four-year period from 2019 to 2022. Data collection for this research will involve gathering financial measurement data from the annual reports of these companies, accessible through the official website of the Indonesia Stock Exchange (IDX) at www.idx.co.id. Population is a group of objects used for research, which can be living creatures and others (Wibowo & Fitria, 2023). The population used in this research is agricultural companies listed on the Indonesia Stock Exchange for 4 years in the 2019-2022 period. So the list of existing agricultural company shares published by the IDX is based on industry classification of 44 companies operating in the fields of plantations, forestry, animal husbandry, fisheries, food crops and other agriculture in (sahamidx.com, 2023) and according to (User, 2022). 23 agricultural companies listed on the Indonesia Stock Exchange were obtained that could be used as research, with criteria that had been determined according to needs. So the total sample of agricultural companies during 2019-2022 is 23 companies. The sampling technique used in this research is purposive sampling technique, a technique for determining samples with certain considerations (Agung & Yuesti, 2019), with the aim of obtaining a representative sample. According to (Utami & Melvani, 2022), a purposive

sampling technique is based on various considerations such as the completeness of the annual financial reports held by each company from 2019 to 2022. list of agricultural companies listed on the Indonesia Stock Exchange in 2019-2022, based on the sampling criteria for this research, there are 23 agricultural companies. Table 2 of sample criteria to be used and table 3 of agricultural companies after selection of sample criteria, as follows:

Table 2. Sample Selection Criteria

No	Criterion	Total
1	Agricultural companies listed on the Indonesia Stock Exchange in 2019 - 2022	44
2	Agricultural companies in the livestock, fisheries, and forestry sub-sector in 2019-2022	(8)
3	Agricultural companies present annual financial statements in the form of US\$ dollars	(1)
4	Agricultural companies that did not publish complete annual financial statements on the IDX between 2019 - 2022	(12)
Total agricultural companies sampled		23
Total sample of agricultural companies during 2019-2022		92

Source: Processing researcher data (2023)

This study makes use of secondary data. Data acquired or gathered indirectly by other individuals or certain organizations is referred to as secondary data (Agung & Yuesti, 2019). Data from agricultural firms registered on the Indonesia Stock Exchange's annual financial reports for the four-year period of 2019-2022 will be used in this study.

This research data collection technique is using documentation techniques, where researchers take and collect the necessary data/documents through the official IDX website . The data collected includes audited annual financial reports from agricultural companies during the period, which have been documented and published by the IDX between 2019 and 2022. For this study, the official IDX website (www.idx.co.id) is the source of the necessary data and papers, which are gathered by the researcher using documentation methodologies. The papers seized consist of yearly financial reports for agricultural enterprises, registered and published on the Indonesian Stock Exchange, that have undergone audits for four consecutive periods 2019-2022.

Information analysis using data processing capabilities provided by SPSS 26 software, researchers employed two approaches of multiple regression analysis in this study to test the hypothesis: multiple regression and moderated regression analysis (MRA). The study employed a quantitative analysis approach, utilizing measurement formulas and figures to assess the impact of working capital management components on profitability (Y) in agricultural companies listed on the Indonesian Stock Exchange between 2019 and 2022. Specifically, the analysis focused on cash turnover (X1), receivable turnover (X2), and inventory turnover (X3), with liquidity (Z) acting as a moderating factor.

RESULTS AND DISCUSSION

Agricultural companies themselves are companies involved in managing natural resource production as well as distributing by selling harvested products on agricultural and plantation products. Processing of agricultural and plantation products into ready-to-consume goods or other raw materials such as palm oil, flour making, and other processed products carried out by agricultural companies. Companies that use the Indonesian Stock Exchange as a platform to facilitate and monitor capital market trading are agricultural companies. So that investors can consider investing their capital in

business cooperation that will be carried out. In this study, there were 44 agricultural companies so that researchers took 23 agricultural companies that were used as research samples, also analyzed and took annual financial statement data to calculate the measurements studied at these companies for 4 periods, namely from 2019 to 2020.

Descriptive statistics is a statistical tool used to analyze data by describing or explaining the data that has been collected, making it easier to understand the variables used and producing information such as average, standard deviation, minimum value and maximum value each variable, according by (Ghozali, 2016). The findings from this analysis are represented in Table 4 below:

Table 3. Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Cash Turnover	92	1,0413	187,013	27,517	34,8354
Receivables Turnover	92	2,1813	312,079	46,026	51,2154
Inventory Turnover	92	,0000	50,529	11,511	10,6075
Liquidity (CR)	92	6,01	9415,00	280,60	981,6992
Profitability (ROA)	92	-58,2526	49,303	2,305	11,4766
Valid N (listwise)	92				

Source: SPSS 26 Output data processing (2024)

The results of descriptive statistical analysis of research variables show that the minimum value, maximum value, mean value, and standard deviation value of all research variables occurred over a four year period, from 2019 to 2022. Cash Turnover, Receivables, and Inventory project working capital management variables, as shown shown in table 4 above. The Cash Turnover variable has a value range between 1.0413 percent to 187.013 percent, with an average of 27.52 percent, and a standard deviation of 34.8354 percent. Meanwhile, for the Receivables Turnover variable, the minimum value is 2.1813 percent, the maximum value reaches 312.079 percent, with an average of 46.026 percent, and a standard deviation of 51.2154 percent, where the maximum value of receivables turnover means the company's efficiency in managing its receivables very well. Good. So the better the company, the higher the ratio value, the faster the turnover of receivables and the faster the company's capital will be returned (Martina, 2021). For the Inventory Turnover variable, the minimum value is 0 percent, while the maximum value reaches 50.529 percent, with an average of 11.511 percent, and a standard deviation of 10.6075 percent. Liquidity (CR) has a minimum value of 6.01 percent, a maximum value of 9415.00 percent, a mean value of 280.60 percent, and a standard deviation value of 981.6992 percent. The ROA (profitability variable) ranges from -58.2526 percent at minimum to 49.303 percent at maximum, with a mean of 2.305 percent and a standard deviation of 11.4766 percent.

Classical Assumption Test

The test results show that there are no signs of multicollinearity between the independent variables. This is caused by the Variance Inflation Factor (VIF) value being less than 10 ($VIF < 10$) for all variables, and the tolerance value being greater than 0.1 (tolerance > 0.1), which indicates the absence of multicollinearity. The glejser heterokedasticity test results shows the significant values of each variable, namely Cash Turnover, Receivables Turnover, Inventory Turnover, Liquidity (0.19; 0.073; 0.046/ 0.051; 0.3) the value is more than 0.05 not less than 0.05. Thus, it can be concluded that the regression model used in this research does not show heteroscedasticity.

The Durbin-Watson (DW) value is 2.020, and the dU value from the Durbin-Watson table is 1.7176. In addition, the 4-dU value from table 7 of the autocorrelation test results is 2.2824. By comparing the DW

and dU values, as well as the DW and 4-dU values, it can be concluded that there is no autocorrelation problem in the test results, because the dU value is smaller than DW and the DW value is smaller than 4 - dU ($dU < DW < 4 - dU$). Assuming that the data in this study are normally distributed, The normality test indicate that the value is significant Asymp. Sig. (2-tailed) of $0.200 > 0.05$, which is more than this value.

Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression Analysis

Model	Coefficients ^a		
	Unstandardized Coefficients		
	B	Std. Error	
1	(Constant)	7,666	1,294
	Cash Turnover	-,102	,024
	Receivables Turnover	,058	,019
	Inventory Turnover	-,487	,097

a. Dependent Variable: Profitability (ROA)

Source: SPSS 26 Output data processing (2024)

The constant value (α value) is 7.666 and the values of the working capital management variable indicators, such as the Cash Turnover value (βX_1 value) of -0.102, the Receivables Turnover value (βX_2 value) of 0.058, and the Inventory Turnover value of -0.487, are all displayed. Subsequently, the following formula for multiple linear regression may be generated:

$$Y = \alpha + (-0,102) + 0,058 + (-0,487) + e$$

$$Y = \alpha - 0,102 X_1 + 0,058 X_2 - 0,487 X_3 + e$$

The profitability constant (Y) has a positive value of 7.666, meaning that the profitability value is 7.666 if the variables of turnover cash(X1), receivables turnover (X2), and inventory turnover (X3) are equal to zero. The cash turnover (X1) and profitability (Y) variables have a negative (opposite direction) influence, as indicated by the coefficient X1 (Cash Turnover) of -0.102. This implies that if the cash turnover (X1) variable increases by 1%, profitability (Y) would fall by -0.102 (-10.2%). The coefficient X2 (Receivables Turnover) of 0.058 indicates that it has a positive (unidirectional) influence on Profitability (Y) with Receivables Turnover (X2). This implies that Y (Profitability) will increase by 0.058 (5.8%) for every 1% increase in variable X1 (Receivables Turnover). The relationship between inventory turnover (X3) and profitability (Y) is negative (counter directional), as indicated by the X3 (Inventory Turnover) coefficient of -0.487. This implies that for every 1% increase in the variable X3 (Inventory Turnover), the Y (Profitability) will decrease by -0.487 (-48.7%).

Table 5. Partial Significance Test (T Test)

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1	(Constant)	7,666	1,294	5,925	,000
	Cash Turnover	-,102	,024	-,382	,000
	Receivables Turnover	,058	,019	,309	,004
	Inventory Turnover	-,487	,097	-,521	,000

a. Dependent Variable: Profitability (ROA)

Source: SPSS 26 Output data processing (2024)

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The cash turnover variable (X1) has a significant negative influence on profitability (Y), as shown by the T test results in the table above. The invoice turnover variable (X2) has a significant positive influence on profitability (Y), because its significance value is 0.004, which is smaller than the threshold value set at 0.05. Apart from that, the inventory turnover variable (X3) also has a significant negative influence on profitability (Y), because its significance value is 0.00, which is also smaller than the threshold value set at 0.05. Thus, this finding can be accepted.

Table 6. Coefficient of Determination Test (R²)

Model	R	Model Summary ^{a,b}		
		R Square	Adjusted R Square	Std. Error of the Estimate
1	,671 ^a	,450	,422	5,87955

a. Predictors: (Constant), Liquidity (CR), Inventory Turnover, Cash Turnover, Receivables Turnover

b. Dependent Variable: Profitability (ROA)

Source: SPSS 26 Output data processing (2024)

According to the test findings in table 11 above, the R Square, or coefficient of determination, has a value of 0.450, or 45%. This demonstrates that the dependent variable of profitability may be explained by 45% depending on the degree of effect of working capital management, which is an indicator component of cash turnover, receivables turnover, and inventory turnover as an independent / free variable. The remaining 55%, however, was affected or explained by additional factors outside the scope of this investigation.

Moderation Regression Analysis

Table 7. Moderation Regression Analysis

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,548	1,803		2,522	,014
	Cash Turnover	-,139	,037	-,519	-3,712	,000
	Receivables Turnover	,095	,035	,509	2,678	,009
	Inventory Turnover	-,521	,191	-,557	-2,734	,008
	Liquidity (CR)	1,108	,632	,240	1,752	,084
	Cash Turnover*Liquidity (CR)	,050	,026	,264	1,917	,059
	Receivables Turnover*Liquidity (CR)	-,019	,026	-,144	-,738	,463
	Inventory Turnover*Liquidity (CR)	,028	,134	,049	,209	,835

a. Dependent Variable: Profitability (ROA)

Source: SPSS 26 Output data processing (2024)

The results of MRA testing or moderation regression in table 11 above can be obtained:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z + e$$

$$\text{Profitability} = 4,548 - 0,139 X_1 + 0,095 X_2 - 0,521 X_3 + 1,108 Z + 0,050 X_1 Z - 0,019 X_2 Z + 0,028 X_3 Z$$

The current ratio, which is the cash turnover indicator component multiplied by liquidity, yields a beta value of 0.050 and a moderation significance value of $0.059 > 0.05$ in the moderation regression test equation (MRA) for working capital management. This indicates that the impact of the cash turnover variable on profitability cannot be mitigated by the liquidity variable (current ratio). Accordingly, it is claimed that this research's H4 is rejected. Liquidity is not considered a moderator variable in this test since $B2 \neq 0$ (significant) and $B3 = 0$ (not significant).

The working capital management moderation regression test equation (MRA) yields a beta value of -0.019 and a moderation significance value of $0.463 > 0.05$ when the component of the indicator of receivables turnover is multiplied by liquidity (current ratio). In other words, the cash turnover variable's impact on profitability cannot be mitigated by the liquidity variable (current ratio). It follows that H5 of this study is deemed to be invalid. Because $B2 \neq 0$ (significant) and $B3 = 0$ (not significant) in this test, liquidity is not considered a moderator variable.

The inventory turnover indicator component multiplied by liquidity (current ratio) in the moderation regression test equation (MRA) for working capital management yields a beta value of 0.028 and a moderation significance value of $0.835 > 0.05$. This indicates that the impact of the cash turnover variable on profitability cannot be mitigated by the liquidity variable (current ratio). Accordingly, it is claimed that this research's H6 is rejected. Liquidity is not considered a moderator variable in this test since $B2 \neq 0$ (significant) and $B3 = 0$ (not significant).

The Effect of Cash Turnover on Profitability

According to data analysis and preliminary hypothesis testing conducted for this study, it is established that cash turnover, one of the indicators' capital management components, significantly and negatively affects profitability (ROA) in agricultural companies listed on the Indonesia Stock Exchange between 2019 and 2022. Less cash is needed for business operations the higher the cash turnover rate. so that the business is aware that it can effectively manage its funds and turn a profit. The findings of the hypothesis test provide evidence for this; they indicate a significance value of 0.000, less than 0.05 ($0.00 < 0.05$), and a t-count measurement of -4.176 , more than the t-table of 1.99006 ($4.176 > 1,990$).

According to agency theory, this is consistent with fostering a favorable connection with profitability. (Kurniawan & Ariyani, 2021) provides support for this idea when the contractual connection is between management (agent) and owner (principal), and the agent is the manager hired by the owner/shareholder to handle their assets or business. According to agency theory, which contends that managers need to be encouraged and motivated to maintain an effective and healthy cash turnover since it impacts the profitability of the organization, this study analysis's findings support that notion. When a company's cash turnover is taken into consideration, a higher cash turnover level translates into a higher degree of liquidity, which in turn impacts profitability.

Based study (Manurung *et al.*, 2021) demonstrates that, for property businesses listed on the Indonesia Stock Exchange between 2016 and 2020, partly cash turnover to profitability (RoA) has a considerable negative affect. This study's results are in line with those of (Simarmata, 2020), which shows that cash turnover has a major and advantageous effect on the profitability of plantation firms that are traded on the Indonesian stock exchange. This link may be ascribed to the company's efficient cash management, which permits significant cash usage to support operating expenses and increase sales volume. As a result, profitability increases as the cash turnover rate grows.

The Effect of Receivables Turnover on Profitability

According to data analysis and hypothesis testing conducted for this study, agricultural companies listed on the Indonesia Stock Exchange between 2019 and 2022 will benefit greatly from the capital management component of one of the indicators, namely receivables turnover, which has been shown to have a positive and significant impact on profitability (ROA). Growing more the business gains quicker earnings from credit sales the shorter the turnaround period is, which boosts the business's profitability. A significant value of 0.004, less than 0.05 ($0.004 < 0.05$), and a t-count measurement of 2.958, more than the t-table of 1.99006 ($2.968 > 1.990$), are data from the hypothesis testing findings that support this analysis.

The agency theory (Jensen and Meckling, 2003) states that prudent and effective managers would work to maintain proper receivables management in order to avoid impeding the company's cash flow and profitability. The findings of this study support this hypothesis. The turnover of receivables will thus be higher, resulting in a reduction in capital invested on receivables. This cash may then be used to other profitable endeavors, so increasing the profitability of the business.

Research by (Simarmata, 2020), which demonstrates that receivables turnover has a large beneficial effect on profitability in plantation firms listed on the Indonesian stock exchange, is consistent with the findings of this study. The present study's findings diverge from those of (Rahayu et al., 2022) Rahayu et al. (2022), whose research indicates that the turnover of accounts receivable has a noteworthy and adverse impact on the profitability of enterprises that are ranked as LQ45 on the IDX. This is a result of the company's declining ratio of accounts receivable to total turnover.

The Effect of Inventory Turnover on Profitability

The analysis and hypothesis testing conducted in this study reveal that one of the elements of capital management, specifically inventory turnover, significantly and adversely affects the profitability (ROA) of agricultural firms listed on the Indonesia Stock Exchange during the period of 2019 to 2022. A higher inventory turnover reflects improved liquidity of inventory and more efficient management of inventory within the company. Conversely, a lower inventory turnover suggests ineffective inventory management, resulting in inventory buildup (Setyawati & Budiyanto, 2018). These findings are supported by the hypothesis testing results, which indicate a significance value of 0.000, signifying statistical significance below the 0.05 threshold ($0.00 < 0.05$). Furthermore, the t-count value of -5.032 surpasses the t-table value of 1.99006 ($-5.032 > 1.990$), confirming the substantial negative impact of inventory turnover on profitability.

According to (Jensen and Meckling, 2003) agency theory, agency conflicts resulting from asymmetric knowledge between managers and owners of a firm can affect how the latter manages its assets, including inventory. This research's findings support this idea. One of the things that might have a major detrimental effect on profitability is management's incapacity to effectively optimize inventory turnover. For agricultural businesses to guarantee that their assets are fully utilized and may favorably impact business profitability, a focus on management pertaining to effective inventory turnover is essential.

According to research by (Rahayu et al., 2022), inventory turnover significantly and negatively affects profitability in businesses that are indexed LQ45 on the IDX. The findings of this study are consistent with their findings. This is because the ratio of inventory turnover to receivables turnover has decreased.

The effect of cash turnover on profitability with liquidity as a moderating variable

Based on the analysis and hypothesis testing conducted in this study, it's evident that liquidity does not act as a moderator in the relationship between cash turnover and profitability (ROA) among agricultural firms listed on the Indonesia Stock Exchange from 2019 to 2022. This implies that even though cash turnover may potentially positively impact profitability, low liquidity levels could hinder companies' ability to fully utilize the positive effects of cash turnover on profitability. In simpler terms, insufficient liquidity may present challenges in quickly and effectively converting assets into cash. These findings are supported by the hypothesis testing outcomes, which show a beta value of 0.050 with a significance level of 0.059, slightly exceeding the threshold of 0.05.

The findings of this study are consistent with the agency theory proposed by (Jensen and Meckling, 2003), which holds that management's incapacity to effectively manage liquidity to counteract the impact of cash turnover on profitability accounts for liquidity's failure to moderate those effects. This demonstrates that liquidity does not function as an efficient means of regulating the impact of cash turnover on profitability in the interactions between agricultural company owners and management.

According to the residual method, the findings of this study are consistent with those of (Parapat & Hutagalung, 2023), which found that liquidity had a negative and non-significant moderation regression coefficient value between the effect of cash turnover on profitability (ROA) in plantation sub-sector companies listed on the Indonesia Stock Exchange for the 2018–2022 period.

The Effect of Receivables Turnover on Profitability With Liquidity as A Moderating Variable

Based on the analysis and hypothesis testing conducted in this study, it's evident that liquidity does not serve as a moderator in the relationship between receivables turnover and profitability (ROA) among agricultural firms listed on the Indonesia Stock Exchange from 2019 to 2022. This indicates that decreasing liquidity levels may impede companies' capacity to swiftly and effectively convert receivables into cash. Hence, it's crucial for companies to explore more efficient receivables management strategies, such as enhancing credit policies, refining collection processes, or reassessing credit sales policies. Additionally, companies should seek avenues to enhance liquidity through improved cash management, diversification of funding sources, or exploring more cost-effective financing options. These findings are substantiated by the hypothesis testing results, which reveal a beta value of -0.019 with a moderate significance level of 0.463, exceeding the threshold of 0.05.

According to agency theory, which was advanced by (Jensen and Meckling, 2003), the findings of this study indicate that management's incapacity to control liquidity to limit the impact of receivables turnover on profitability, or that liquidity does not function as an effective mechanism in the relationship between business owners and managers. Owners of businesses should make sure that the company's long-term objectives are aligned with its receivables turnover policies and that management gives careful consideration to liquidity concerns when deciding how best to recover receivables from customers and extend credit to them.

The outcomes of this study are consistent with the findings of (Meidyawan & Prasetyo, 2022), demonstrating that liquidity does not significantly influence or attenuates the relationship between receivables turnover and profitability in Regional Owned Enterprises and the Gresik Regency Regional Public Service Agency.

The Effect of Inventory Turnover on Profitability with Liquidity as A Moderating Variable

Based on the data analysis and hypothesis testing conducted in this study, it is evident that liquidity does not play a moderating role in the relationship between inventory turnover and profitability (ROA) in agricultural companies listed on the Indonesia Stock Exchange from 2019 to 2022. Lower liquidity levels correspond to reduced capacity for companies to swiftly and effectively convert inventory into cash. The absence of liquidity moderation in the impact of inventory turnover on profitability leads to challenges such as escalating costs, diminished inventory value, constrained investments, and constraints on credit policies. Therefore, it is crucial for agricultural firms to meticulously manage their liquidity, ensuring that their inventory turnover policies strike a balance between operational efficiency and long-term financial stability. This conclusion is corroborated by the findings of hypothesis testing, which reveal a beta value of 0.028 with a moderately significant p-value of 0.835, exceeding the threshold of 0.05.

According to (Jensen and Meckling, 2003) agency theory, the findings of this study explain why management has not been able to efficiently manage liquidity to counteract the negative effects of inventory turnover on profitability. This demonstrates that liquidity is not a useful tool in the interaction between agricultural company owners and management to mitigate the impact of inventory turnover on profitability. Owners of businesses should make sure that management properly weighs liquidity considerations when making choices about inventory management and that rules addressing inventory turnover are consistent with the organization's long-term objectives.

According to research using the residual method, the findings of this study are consistent with that of (Parapat & Hutagalung, 2023), which found that in plantation sub-sector companies listed on the Indonesia Stock Exchange for the 2018–2018 period, liquidity weakens and neither modifies nor is a moderating variable between the effect of inventory turnover on profitability (ROA). 2022 with a non-significant negative moderation regression coefficient value

CONCLUSIONS AND SUGGESTION

Based on the analysis and hypothesis testing conducted in this study, it is evident that the management of working capital, represented by cash turnover, has a significant negative impact on profitability in agricultural companies listed on the Indonesia Stock Exchange between 2019 and 2022. This highlights the adverse effects of ineffective cash management practices, where lower turnover rates indicate greater inefficiency due to underutilized funds. In contrast, the management of working capital, as indicated by accounts receivable turnover, exhibits a significant positive influence on profitability within these agricultural firms during the same period. This suggests that faster turnover periods lead to quicker profit realization from credit sales, thereby enhancing overall profitability. Additionally, the management of working capital, measured through inventory turnover, demonstrates a significant negative effect on profitability among agricultural companies listed on the Indonesia Stock Exchange from 2019 to 2022. This indicates that lower inventory turnover rates reflect inefficient inventory management practices and the accumulation of excess inventory. Concerning the role of liquidity, it is found that liquidity fails to moderate the impact of both cash turnover and receivable turnover on profitability within agricultural companies listed on the Indonesia Stock Exchange from 2019 to 2022. Reduced liquidity levels may hinder these companies' ability to fully leverage the influence of cash turnover and receivable turnover on profitability, impeding their capacity to swiftly convert assets into cash. Moreover, liquidity is also incapable of moderating the influence of accounts receivable turnover on profitability within agricultural companies listed on the Indonesia Stock Exchange from 2019 to 2022. This inability

for liquidity moderation in the context of accounts receivable turnover exacerbates challenges such as rising costs, diminishing inventory values, investment constraints, and pressures on credit policies.

Researchers suggest the following, For Companies: to maximize profitability, companies should prioritize effective working capital management. This involves enhancing cash management policies, optimizing inventory turnover, and expediting trade receivable turnover. It's also crucial for companies to ensure adequate liquidity for optimizing operations by exploring funding sources that enhance cash flow efficiency. For Investors: investors can assess the effectiveness of company management in handling short-term assets and liabilities based on the significant impact of factors identified in this research. This information can aid investors in making informed decisions. Additionally, investors should consider other factors such as the long-term strategies of agricultural companies, including plans to optimize working capital usage and enhance profitability in the future. A prudent investment strategy involves evaluating a company's long-term growth potential. For Future Researchers: Future studies addressing similar issues should consider expanding the scope by incorporating additional variables related to both working capital management and profitability. Researchers should also diversify the population of research subjects beyond those included in this study. Increasing the sample size and extending the research duration can enhance the validity of the data and yield more accurate results.

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