



Working Capital Management and Financial Performance of Listed Agricultural Companies in Nigeria

¹Adesina, Olufemi Dadebo, ²Oluwadare, Oladimeji Emmanuel (Ph.D) & ³Ogunleye, Akinyemi Wumi

¹Department of Accountancy, Federal Polytechnic, Ile-Oluji, Ondo State, Nigeria

²Department of Accounting and Finance, Elizade University Ilara-Mokin, Ondo State, Nigeria

³Dept of Vocational and Technical Education, Ekiti State University, Ado Ekiti, Ekiti State, Nigeria

Email: olufemiadesina@fedpolel.edu.ng_oladimeji.oluwadare@elizadeuniversity.edu.ng

wumiakinyemi@gmail.com

ABSTRACT

This study examined the effect of working capital management on the financial performance of selected Agricultural manufacturing firms in Nigeria. The components of working capital management are the inventory conversion period, accounts receivable period, accounts payable period, and current ratio while the financial performance is proxied by ROA. The study adopts an ex post facto research design. The population of the study comprised five Agricultural companies listed on the Nigerian Securities Exchange as of December 2022. A purposive sampling technique was used to select four companies that have complete data. Time series data were collected using secondary sources from the published financial statements of the companies and the Nigerian Stock Exchange from 2011 to 2022. Descriptive statistics and inferential statistics using correlation and regression analyses were employed for the statistical analyses. This study found that there is a negative and statistically insignificant effect of INVCP on the ROA of the selected agricultural manufacturing companies. Also, there is a negative statistically insignificant effect of ACRVP on ROA. However, there is a positive statistically insignificant effect of ACPP and current ratio on the ROA of the selected manufacturing firms. The study concludes that efficient and effective working capital management is of utmost importance in Agricultural manufacturing firms in Nigeria. The study recommends that there is a need for the implementation of strategies that focus on optimizing inventory management processes to reduce carrying costs without compromising operational efficiency. It is also suggested these companies need to address these challenges by optimizing receivables management.

Keywords: Working Capital Management, Accounts Receivable Period, Accounts Payable Period, Return on Assets

Journal Reference Format:

Adesina, O.D., Oluwadare, O.E. & Ogunleye, W.A. (2024): Working Capital Management and Financial Performance of Listed Agricultural Companies in Nigeria. *Humanities, Management, Arts, Education & the Social Sciences Journal*. Vol. 12. No. 2, Pp 9-22.. www.isteams.net/humanitiesjournal. [dx.doi.org/10.22624/AIMS/HUMANITIES/V12N2P2x](https://doi.org/10.22624/AIMS/HUMANITIES/V12N2P2x)

1. INTRODUCTION

The agricultural sector in Nigeria plays a pivotal role in the nation's economic landscape, serving as a primary source of livelihood for a significant portion of the population (Adegbite & Owolabi, 2020). As the backbone of the economy, this sector comprises numerous listed agricultural companies operating across diverse segments, ranging from crop cultivation to Agro-processing that are contributing substantially to employment generation and GDP growth (Aremu & Aremu, 2018; Olajide & Adegbite,



2019). The Nigerian agricultural industry's unique characteristics, such as seasonality, dependence on weather patterns, and market uncertainties, pose specific challenges to these firms in managing their working capital efficiently (Adegbite & Owolabi, 2020; Ololube & Aminu, 2017). These challenges necessitate a thorough examination of the relationship between working capital management and the financial performance of the agricultural manufacturing firms in Nigeria. Agricultural companies in Nigeria often experience fluctuations in revenue due to seasonal harvest cycles and market demand. As a result, they face challenges in accessing affordable finance. Thus, effective management of cash flows is crucial to ensure that there is enough liquidity to cover operational expenses, purchase inputs, and manage unforeseen costs during off-season periods. By managing their working capital efficiently, these companies can reduce their reliance on external financing, which will ease their financial burden and improve their profitability. Effective working capital management is crucial for businesses, yet it comes with several challenges. These challenges are often intricately tied to specific components of working capital, such as the inventory conversion period, accounts receivable period, accounts payable period, and the current ratio (Smith, 2020).

Agricultural manufacturing firms face a substantial problem when trying to manage inventory conversion periods, because of the perishable nature of the commodities and sensitivity to changes in market demand. Total liquidity is affected by the amount of time it takes to transform raw materials into completed items, which in turn affects storage costs, the risk of obsolescence, and the tying up of capital. (Kieso et al., 2020). The capacity to meet short-term financial commitments and maintain liquidity can be negatively affected by extended periods of accounts receivable or delayed customer collections. To address this issue, it is essential to manage credit policies, keep an eye on payment schedules, and make sure that collections are efficient. (Horngren et al., 2021).

While there may be some short-term financial benefits to controlling accounts payable periods, there is a risk that relationships with suppliers can suffer or discounts could be lost if payments are overly delayed. It is not an easy balancing act to optimize cash flows through trade credit conditions without jeopardizing relationships with suppliers. (Garrison et al., 2020). Working capital management relies heavily on the current ratio, which shows how well a company can meet its short-term obligations with its current assets. On the other hand, poor liquidity management could result from hiding underlying inefficiencies in the ratio, including idle inventories or ineffective receivables management. (Kimmel et al., 2019). One of the most important financial metrics, return on assets (ROA) shows how well a business turns its assets into profit. Inadequate inventory turnover, extended accounts receivable, or excessive accounts payable periods are all examples of working capital management challenges that can have a direct influence on a company's return on assets (ROA), indicating inefficiencies in asset utilization and profitability. (Warren et al., 2021).

Very few studies focused on the Agricultural sector (Luchinga (2014); Ali, 2019; Kpanga et al. (2020); Ayunku & Johnny (2020); Githiga & Koori 2023). Furthermore, none of the studies in Nigeria extended the scope of the study to 2022. However, Githiga and Koori, (2023) study was extended to 2022 but the study was carried out in Kenya. By addressing the period under investigation, resulting in a research gap. This study aims to address the existing knowledge gap. Ultimately, this study aspires to offer valuable insights and recommendations to aid agricultural companies in refining their working capital strategies, thereby enhancing their overall financial performance and sustainability in the Nigerian market.



2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1. Working Capital

In business, working capital is the money a company has to cover its everyday operations, notably in commodity production. (Reddy & Patkar (2004); Akinsulire (2005); Pandey, 2018) Gross working capital is the total amount a corporation sets aside for current assets. In contrast, net working capital is calculated by subtracting current commitments from current assets. Any time, net working capital can be positive or negative. When current assets exceed current obligations, working capital is positive. Current liabilities exceed current assets, resulting in negative working capital.

2.1.2 Working Capital Management

Working capital management (WCM) is a company's ongoing monitoring of assets, commitments, and funds for new purchases. Biger and Gill said this in 2010. A corporation must efficiently manage its working capital to avoid overinvesting in current assets and meet urgent financial obligations (Eljelly, 2004). Only working capital management creates shareholder value (Gill & Biger, 2010). According to Gill and Biger (2010), "working capital management" involves managing current assets, liabilities, and financing owned assets. Working capital management oversees funds available for urgent expenses. Effective working capital management prevents overinvestment in current assets and ensures short-term obligations are met (Eljelly, 2004)

2.1.3. Components of Working Capital Management (WCM)

To ensure the efficient functioning of its daily activities, a corporation needs sufficient working capital. The net working capital of a corporation can be calculated by deducting its short-term obligations from its short-term assets (Pandey, 2005). Efficiently managing the various elements of working capital is crucial to optimizing resource use and maintaining adequate cash flow for daily operations (Shim & Siegel, 2008).

The Inventory Conversion Period (INVCP) is a financial metric used to assess how efficiently a company manages its inventory. It measures the average time it takes for a company to convert its inventory into sales or revenue. The Accounts Receivable Period measures the average number of days it takes for a company to collect payments from its credit sales. It is calculated by dividing the average accounts receivable by the average daily credit sales. The Accounts Payable Period, also known as the Payable Deferral Period or Days Payable Outstanding (DPO), is a financial metric used to assess how long a company takes to pay its suppliers for goods or services purchased on credit. The Current Ratio is a financial metric used to assess a company's short-term liquidity and its ability to cover short-term obligations with its short-term assets. It's one of the key components of working capital analysis.

Return on Assets (ROA)

The financial metric referred to as return on assets (ROA) measures the efficiency with which a company generates profit from its assets. To calculate it, divide the net income by the average total assets (Gitman & Zutter, 2019).



2.2 Theoretical Review

2.2.1 Trade-off Theory (Risk and Return)

Merton Miller and Franco Modigliani proposed the financial trade-off theory in 1958. This theory investigates how capital structure affects a company's cost of capital. The trade-off theory suggests that firms must deliberately choose how much working capital to keep for efficient management. Daily operations require working capital—cash, inventories, and accounts receivable. Current liabilities include accounts payable and short-term debt. The trade-off hypothesis demands businesses to weigh high working capital's pros and downsides. Pros include meeting short-term obligations, developing opportunities, and managing operations. Cons include increased financing costs and non-productive asset investment opportunity expenses. According to the trade-off principle, a company should keep its working capital at the sweet spot to maximize advantages and reduce costs. The operational cycle, liquidity, risk tolerance, and cost of capital are carefully considered throughout optimization.

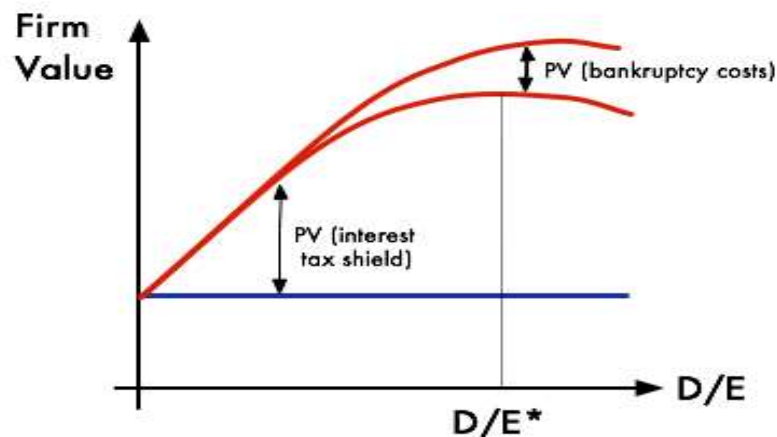


Fig. 1: Trade-off Theory

Source: Wikipedia

As the leverage, or debt-equity ratio, develops, there is a balancing act between the benefits of the interest tax shield and the risk of bankruptcy. This leads to the existence of an optimal capital structure, denoted as D/E^* . The upper curve represents the benefits of using debt financing in terms of tax shield advantages, whereas the lower curve takes into account such profits after subtracting the costs associated with bankruptcy.

2.3 Empirical Review

Luchinga (2014) investigated the relationship between working capital management and the financial performance of agricultural enterprises listed on the Nairobi Stock Exchange. The analysis focused on all seven agricultural firms quoted on the NSE for four years, from 2009 to 2012. The study discovered that inventory turnover in days had a negative effect on Return on Assets. Also, the cash conversion period and net payment period have a significant negative effect on return on equity. The study revealed that the profitability of agricultural enterprises listed on the NSE was determined by working capital management.



To become more profitable, the study recommended that managers of these organizations work on decreasing their cash conversion cycles, negotiating better payment terms with suppliers, and collecting receivables from their clients as quickly as feasible. Listed Nigerian agricultural enterprises' financial performance from 2007 to 2016 was studied by Ali (2019) about working capital management. Agricultural enterprises' financial performance was negatively and insignificantly affected by the accounts payable ratio, according to the study's findings. However, the accounts receivable ratio significantly and positively affected the financial performance of the companies that were part of the study. The firm's financial performance was positively affected by the inventory ratio; however, the effect was not statistically significant. Additionally, the results demonstrate that the cash conversion cycle of the chosen agricultural enterprises significantly negatively impacted their financial performance.

Ayunku & Johnny's (2020) study focused on the relationship between working capital management and company performance in agricultural firms listed on the Nigerian stock exchange using the data from Livestock Feeds Plc from 2002 to 2018 and Okomo Oil Company Plc from 2007 to 2018. The study used the cash conversion cycle, account payables, account receivables, and inventory turnover as explanatory variables, and earnings per share as the outcome variable. The data was analyzed using descriptive statistics, the ADF unit root test, and the regression method. The study demonstrated that earnings per share and working capital management, as measured by account receivables, are positive and statistically significant for both of the companies studied. The correlation between earnings per share and account payables was negative and but statistically insignificant for both organizations. The correlation between the cash conversion cycle and earnings per share was positive and statistically significant for both companies.

The relationship between inventory management and earnings per share in Livestock Feeds Plc was negative and not statistically significant, but in Okomo Oil Company Plc it was positive but not statistically significant. The study concluded that effective working capital management has an impact on firm performance. As a result, it is recommended that agricultural firm financial managers evaluate their accounts receivable and payable regularly. Kpanga et al. (2020) investigated the relationship between working capital management and the financial performance of listed Agro-allied enterprises in Nigeria. Secondary data were acquired from financial statements and evaluated over ten (10) years, from 2008 to 2017, for five (5) enterprises in the agricultural industry, yielding fifty (50) years of financial data. Data were analysed using descriptive and inferential statistics.

The ordinary least squares (OLS) regression model was used to estimate the data. The study found that the account receivable term significantly improved the financial performance of mentioned agricultural enterprises in Nigeria, with a coefficient of 2.49 ($P= 0.017 < 0.05$). This means that efficient accounts receivable management will improve the financial performance of Nigeria's quoted agriculture enterprises. As a result, the study recommended that all measures aimed at continuously improving the accounts receivable period be implemented and maintained so that a firm is not adversely affected by the activities of bad debtors. The impact of AR management on the financial results of the Nairobi stock exchange-listed agricultural enterprise was investigated by Nyantika et al. (2022). The research strategy used in the study was descriptive.



The research aimed to collect data from 505 people, including members of the accounting and finance departments, procurement departments, and top management of agricultural enterprises listed on the NSE as of December 31, 2020. The researchers used stratified random sampling to choose 319 participants to participate in the study. The financial performance of listed agricultural enterprises in Kenya was shown to be strongly connected with accounts receivable ($r=-.450^{**}$, $p=.000$), according to the study. Researchers concluded that cash conversion cycles regulate how much money businesses can spend above their budget. In addition, the report suggested that listed agricultural enterprises implement state-of-the-art inventory management systems. A decrease in turnaround time and an improvement in financial performance are all possible outcomes of implementing this system.

Githiga and Koori (2023) examined how working management affects the financial performance of Nairobi Securities Exchange-listed agricultural firms covering the period of 2016-2022. The study focused on the effects of accounts receivable collection, creditor payment, operating cash flow, and inventory turnover on financial performance. The study also examined how business size affects the working capital and financial performance of Nairobi Securities Exchange-listed agricultural firms. The analysis included panel regression, descriptive, and correlation statistics. A negative correlation was established between accounts receivable collection duration and financial performance. The study also identified a positive association between creditor payment time and firm financial performance. However, this correlation was not statistically significant. Cash flows also correlated strongly with financial performance.

Thus, the study found a high positive link between cash flows and the financial performance of Nairobi Securities Exchange-listed agricultural enterprises. For Nairobi Securities Exchange-listed agricultural enterprises, a shorter accounts receivable collection period improves financial performance. The study recommended that Nairobi Securities Exchange-listed agricultural companies reduce accounts receivable collection length, boost operating cash flows, and minimize inventory turnover to improve financial performance.

Very few studies focused on the Agricultural sector (Luchinga (2014); Ali, 2019; Kpanga et al. (2020); Ayunku & Johnny (2020); Githiga & Koori 2023). Furthermore, none of the studies in Nigeria extended the scope of the study to 2022. However, Githiga and Koori, (2023) were extended to 2022 but the study was carried out in Kenya. By addressing the period under investigation, resulting in a research gap. This study aims to address the existing knowledge gap.

3. METHODOLOGY

Using panel data spanning twelve years (2011–2022), this study employs an ex-post facto research design. The study is descriptive, secondary data were sourced from the annual reports and audited financial statements of the selected Agricultural manufacturing firms over twelve years 2011 to 2022. The population of this study comprises five (5) Agricultural manufacturing companies on the Nigerian Exchange Group during the period of the study. The sample size of four (4) Agricultural manufacturing companies was used for the study. The sampling technique employed in this study is purposive sampling. The selection of these companies was based on the accessibility to the financial statements and accounts in the period of study.



Model Specification

$$ROA = \beta_0 + \beta_1 IVCP_{it} + \beta_2 ACRP_{it} + \beta_3 ACP_{it} + \beta_4 CR_{it} + \beta_5 WCIP_{it} + \beta_6 WCFP_{it} + \beta_7 CRQ_{it} + \epsilon_{it}$$

Where: β_0 = Constant

ROA = (Dependent Variable)

IVCP = Inventory Conversion Period (Independent Variable)

ACRP = Accounts Receivable Period (Independent Variable)

ACPP = Account Payable Period (Independent Variable)

CR = Current Ratio (Independent Variable)

WCIP = Working capital investment policy (Independent Variable)

WCFP = Working capital investment policy (Independent Variable)

FIRM SIZE = (Control Variable)

DEBTASSET RATIO = (Control Variable)

ϵ_{it} = Component error term given as $\mu_i + \nu_{it}$

Table 3.1: Measurement of Variables

Variable	Description	Measurement
Return on Assets (ROA)	Return on assets is a financial performance indicator computed to determine asset utilization efficiency. It indicates profitability which the firms generate as a percentage of the total assets.	Profit after tax/Total Assets X 100
Inventory Conversion Period (INVCP)	It determines the time it will take to convert the inventory into sales.	Inventory/Cost of sales X 365
Accounts Receivable period (ACRP)	This is profit attributable to equity holders	Profit after tax/Total equity X 100
Accounts Payable Period (ACPP)	It determines the time it will take to settle the supplier's	Accounts Payable/Cost of sales X 365
Current Ratio (CRR)	The current ratio is a liquidity ratio that indicates the proportion of the existing assets to current liabilities	Current assets/current liabilities
Working capital Investment Policy (WCIP)	The current assets ratio to total assets is usually used to measure working capital investment policy	Current liabilities/ Total liabilities
Working Capital Financing Policy (WCFP)	working capital financing policy as a current liabilities ratio to total liabilities	
Debt ratio (DER)	This is the proportion of debt in financing the assets of the company	Total debt/total assets
Company Size (LOG OFASSETS)	The size of the firm represents the total firm's Assets expressed in natural logarithm	Logarithm of total assets

Source: Authors' Compilation (2023)



4. RESULTS

4.1 Descriptive Statistics

Table 4.1 presents the descriptive statistics of the dependent and independent variables used in the study. The average mean of ROA is 0.032543 representing 3%. The average inventory conversion period is 194 days, the average accounts receivable period is 808 days and the average accounts payable days is 336 days. The current ratio on average is 1.206622. The working capital investment policy is 0.341962 and the average working capital financing policy is 0.538983. The firm size on average is 7.168457 and debtor to total asset ratio is 0.586181.

Table 4.1: Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.
ROA	0.032543	0.046096	0.297832	-0.1987	0.116684
INVCP	194.4444	153.0649	577.9477	52.22375	129.2836
ACRVP	808.3090	25.35050	36026.22	0.162491	5191.915
ACPP	336.8038	94.86977	3923.742	11.31320	620.4785
CURR_RATIO	1.206622	1.100068	3.248776	0.216268	0.783397
WCIP	0.341962	0.231691	0.924304	0.050573	0.287332
WCFP	0.538983	0.532515	1.000000	0.092548	0.280895
FIRM_SIZE	7.168457	7.167786	8.155812	6.191085	0.531064
DEBTAR	0.586181	0.576297	1.299719	0.177877	0.271498

Source Authors' Computation EViews 9.0

4.2 Correlation Analysis

Table 4.2 presents the correlation matrix of the variables used in the study. There is a very moderate negative correlation of -0.359525 between ROA and INVCP. Also, a very weak negative correlation of -0.073324 between ROA and ACRVP and a weak positive correlation of 0.0212 between ROA and ACPP. Also, there is a negative correlation of -0.163043 and a positive correlation of 0.580156 between ROA and the current ratio. and WCIP.

There is a weak negative correlation between the ROA and WCFP. Firm Size has a strong positive correlation 0.607742 while debt to total asset has a strong negative correlation of -0.687955. WCIP and WCFP have negative correlations of -0.687955 and -0.687955 respectively.



Table 4.2 Correlation Matrix

	ROA	ROE	NPM	INVCP	ACRVP	ACPP	CURR	WCIP	WCFP	FIRM_SIZE	DEBTAR
ROA	1.00	0.25	0.25	-0.36	-0.07	-0.16	0.58	-0.02	-0.10	0.61	-0.69
INVCP	-0.36	-0.16	-0.57	1.00	0.44	0.71	-0.47	-0.19	-0.10	-0.17	0.53
ACRVP	-0.07	-0.16	-0.95	0.44	1.00	0.86	-0.19	-0.13	-0.04	-0.14	0.19
ACPP	-0.16	-0.08	-0.88	0.71	0.86	1.00	-0.40	-0.28	-0.17	-0.01	0.42
CURR_	0.58	0.14	0.31	-0.47	-0.19	-0.40	1.00	0.25	-0.02	0.27	-0.60
WCIP	-0.02	-0.16	0.20	-0.19	-0.13	-0.28	0.25	1.00	0.83	-0.38	0.02
WCFP	-0.10	-0.41	0.13	-0.10	-0.04	-0.17	-0.017	0.82	1.00	-0.40	-0.06
FIRM_S	0.61	0.26	0.25	-0.17	-0.14	-0.01	0.29	-0.38	-0.40	1.00	-0.45
DEBTAR	-0.69	0.19	-0.40	0.53	0.19	0.42	-0.60	0.02	-0.06	-0.45	1.00

Source: Authors' Computational Output (EViews 9) 2023

4.3. Panel Data Regression Analysis

Panel Data Regression Analysis Using ROA as Dependent Variable

The Hausman test was conducted to determine the most appropriate and consistent model between the fixed effect model and the random effect model. If the p-value is small (less than 0.05), the null hypothesis will be rejected. The chi-square value of 1.329659 and the p-value is 0.9952; therefore, the random effect was used as the basis for the analysis.

Table 4.3 Hausman Test

Table 4.3 Hausman Specification Test ROA

Correlated Random Effects - Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	1.329659	8	0.9952

Source: Authors' Computational Output (EViews 9) 2023

Random Effect Model

Table 4.4 presents the result of the random effect model. There is a negative and statistically insignificant effect of INVCP on the ROA of the selected consumer goods manufacturing firms in Nigeria with a coefficient of -3.21E-05 and with p-value of 0.8448. Also, there is a negative statistically significant effect of ACRVP on ROA with a coefficient of -3.59E-06 and p-value of 0.5792. There is a positive but statistically insignificant effect of ACPP on the ROA of the selected manufacturing firms with coefficients of 7.61E-05 with the corresponding p-value of 0.2893.



The current ratio has an insignificant positive effect of 0.015666 p-values of 0.5957. WCIP has a positive and statistically insignificant effect of 0.522168 with a coefficient of 0.0558. WCFP has a negative and statistically insignificant effect on ROA with a coefficient of -0.129796 with a p-value of 0.2546. Firm size has a negative and statistically insignificant effect of -0.145649 with a p-value of 0.1094. Total debt to total assets has a negative and statistically insignificant effect with a coefficient of -0.135802 and with p-value of 0.2129.

Table 4.4 Random Effect Model ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INVCP	-3.21E-05	0.000163	-0.197154	0.8448
ACRVP	-3.59E-06	6.41E-06	-0.559629	0.5792
ACPP	7.61E-05	7.08E-05	1.075593	0.2893
CURR_RATIO	0.015666	0.029262	0.535381	0.5957
WCIP	0.522168	0.264189	1.976492	0.0558
WCFP	-0.129796	0.112112	-1.157739	0.2546
FIRM_SIZE	-0.145649	0.088716	-1.641735	0.1094
DEBTAR	-0.135802	0.107091	-1.268095	0.2129
C	1.012215	0.590655	1.713715	0.0952

Effects Specification

	S.D.	Rho
Period random	0.000000	0.0000
Idiosyncratic random	0.078931	1.0000

Weighted Statistics

R-squared	0.735341	Mean dependent var	0.032543
Adjusted R-squared	0.654474	S.D. dependent var	0.116684
S.E. of regression	0.068589	Sum squared resid	0.169360
F-statistic	9.093118	Durbin-Watson stat	1.643084
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.735341	Mean dependent var	0.032543
Sum squared resid	0.169360	Durbin-Watson stat	1.643084

Source: Authors' Computational Output (EViews 9) 2023

5. DISCUSSION OF FINDINGS

The relationship between INVCP and the ROA of the selected Agricultural manufacturing enterprises is negative and not statistically significant. The negligible adverse impact of INVCP on ROA suggests that alterations in inventory turnover have minimal influence on the firm's profitability with its assets. With the result of this study, we fail to reject the null hypothesis. The outcome of this study aligns with, Githiga and Koori (2023) who found a negative and insignificant effect of the inventory conversion period on the financial performance of the selected Agricultural companies listed on the Nairobi Securities Exchange in Kenya. However, the outcome of this study contradicts Ali, (2019) who found out that Inventory ratio [IR] had a positive but insignificant influence on the financial performance of the firms studied in Nigeria. The study, however, contradicts Luchinga (2014) who found that inventory turnover in days had a negative effect on Return on Assets.



The relationship between ACRVP and the ROA of the selected Agricultural manufacturing enterprises is negative and not statistically significant. The negligible adverse impact of ACRVP on ROA suggests that alterations in the receivable collection period have minimal influence on the firm's profitability concerning its assets. It indicates that keeping the receivable period for a longer period has a negative effect on the return on assets. If the trends continue, it may have a serious negative effect on the performance of Agricultural manufacturing companies.

With this result, we fail to reject the null hypothesis. The study aligns with Githiga and Koori (2023) who found a negative and insignificant effect of the inventory conversion period on financial performance but disagree with Ali, (2019) who found that the accounts receivable ratio [ARR] had a positive and significant influence on the financial performance of the firms studied.

The study found that there is a positive but statistically insignificant effect of ACPP on the ROA of the selected manufacturing firms. The study suggests that there is an observed trend indicating that when ACPP is present or increases, there is a tendency for ROA to also increase. This implies that, in general, there might be a relationship suggesting ACPP could potentially have a positive impact on ROA. Despite observing a positive trend, the statistical analysis conducted in the study did not find enough evidence to confirm that this relationship is strong enough to be considered statistically significant.

This lack of significance means that the observed relationship might have occurred by chance rather than being a reliable or conclusive finding. With this result, we fail to reject the null hypothesis. The study aligns with Githiga and Koori (2023) who found that the length of time it takes for creditors to be paid showed a positive correlation with the financial performance of the enterprises being studied, but this correlation was not statistically significant. However, the result contradicts, Ali, (2019) whose finding shows that the accounts payable ratio [APR] had a negative insignificant influence on the agricultural firms' financial performance

The current ratio has a positive but insignificant effect on the ROA of the selected Agricultural firms. The current ratio typically measures a company's ability to meet short-term liabilities with short-term assets. An increasing current ratio usually implies improved liquidity as current assets grow relative to current liabilities. However, if this increase negatively impacts ROA, it might suggest that excessively focusing on liquidity and maintaining a high current ratio may not necessarily translate into higher profitability. A significantly high current ratio, if not balanced well, might indicate inefficient use of resources. It could mean that too many resources are tied up in assets that are not generating enough return. Hoarding excessive current assets (cash, inventory, etc.) might reduce the efficiency of capital utilization and lead to lower profitability.

6. CONCLUSION AND RECOMMENDATIONS

This study concludes that there is a negative statistically insignificant effect of INVCP and ACRVP on the ROA of the selected Agricultural manufacturing firms and that there is a positive but statistically insignificant effect of ACPP on the ROA of the selected manufacturing firms. The current ratio has a positive but insignificant effect on the ROA of the selected Agricultural firms.



Based on the results of this study, the following recommendations are offered:

- (i) There is a need for the implementation of strategies that focus on optimizing inventory management processes to reduce carrying costs without compromising operational efficiency. This might involve streamlining supply chains, implementing just-in-time inventory practices, or enhancing forecasting accuracy to minimize excess inventory.
- (ii) An increasing ACRVP that negatively affects ROA signifies operational inefficiencies, cash flow constraints, potential credit management issues, and a diminished ability to generate profits from assets and equity. The company needs to address these challenges by optimizing receivables management, improving cash conversion cycles, revisiting credit policies, and enhancing operational efficiency to positively impact profitability and shareholder returns.
- (iii) A positive statistically insignificant effect of ACPP on ROA for selected Agricultural manufacturing firms implies that the relationship between the average payment period to suppliers and financial performance is strong. Though it had no significant effect, it should not be allowed to degenerate to losing their credibility from the suppliers.
- (iv) Agricultural Companies should focus on balancing their current asset levels to ensure they adequately cover short-term obligations without having excessive idle assets that do not contribute to profitability. Further examination is required to understand why changes in the current ratio impact ROA significantly but do not have a substantial effect on ROE. This might involve assessing how different components of current assets and liabilities contribute to overall financial performance

6. CONTRIBUTIONS TO KNOWLEDGE

The study offers a nuanced understanding of how traditional financial metrics may not uniformly dictate profitability within the agricultural manufacturing sector. It challenges oversimplified assumptions and emphasizes the need for a more comprehensive analysis beyond conventional financial ratios. By focusing on agricultural manufacturing enterprises, the study provides insights specific to this sector, potentially helping industry practitioners and policymakers in making informed decisions regarding financial management strategies.

The study highlighted the minimal impact of INVCP, ACRVP, and current ratio on ROA and emphasized the importance of considering other factors or strategies beyond these metrics to drive profitability in agricultural manufacturing firms. The findings open avenues for further research to explore non-linear relationships, industry-specific nuances, and potentially hidden factors that might significantly influence profitability in agricultural manufacturing enterprises.



REFERENCES

- Adegbite, E., & Owolabi, F. (2020). Agriculture and Economic Growth Nexus: Empirical Evidence from Nigeria. *International Journal of Agricultural Management and Development*, 10(2), 163-173.
- Akinsulire, O. (2005). *Financial management*. Lagos: El-Toda Ventures.
- Ali, U. (2019). Impact of working capital management on the financial performance of listed agricultural firms in Nigeria. A Thesis Submitted to The School of Postgraduate Studies, Abubakar Tafawa Balewa University, Bauchi. In Partial Fulfilment of The Requirement for The Award of The Master of Science (Ms. C) Degree in Accounting.
- Aremu, M. A., & Aremu, A. O. (2018). Agricultural Finance and Economic Growth in Nigeria: An Autoregressive Distributed Lag (ARDL) Approach. *Cogent Economics & Finance*, 6(1), 1516095.
- Ayunku E. P., & Johnny, N. (2020). Empirical investigation of effective management of working capital on firm performance: Evidence from the Nigerian Agricultural Sector. *Asian Journal of Economics, Business and Accounting* 13(4): 1-13, Article no. AJEBA.54337
- Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International journal of commerce and management*, 14(2), 48-61.
- Garrison, R.H., Noreen, E.W. & Brewer, P.C. (2019). *Managerial Accounting*. McGraw-Hill Education
- Gill, A., Biger, N. & Mathur, N. (2010). The relationship between working capital management and profitability: Evidence from the United States. *Business and Economics Journal* 10(1), 1-9.
- Githiga, L. & Koori, J. M. (2023), Working Capital Management and Financial Performance of Agricultural Firms Listed on Nairobi Securities Exchange, Kenya, *Journal of Finance and Accounting*. 7 (1) 116-138. <https://doi.org/10.53819/81018102t4127>
- Gitman, Lawrence J., and Chad J. Zutter. *Principles of Managerial Finance*. 14th ed., Pearson, 2019. <http://erepository.uonbi.ac.ke/bitstream/handle/11295/76056/Luchinga>
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2020). *Intermediate Accounting*. Wiley
- Kpanga, C. K., Abubakar, A. K., Fashagba, F. P. & Olayoonu, O. T. (2020). Impact of working capital management on the performance of quoted agricultural companies in Nigeria. *African Scholar Journal of Mgt. Science and Entrepreneurship (JMSE-7)*, 18(7), 198-216.
- Luchinga L. M. (2014). The effect of working capital management on the profitability of agricultural firms listed in the Nairobi securities exchange research project presented in partial fulfillment of the requirements for the award of the degree of Master of Business Administration, School of Business, University of Nairobi.
- Nyantika, R. B., Nyangau, A., & Onwong'a, M. (2022). Effect of working capital management practices on the financial performance of listed agricultural firms in Nairobi securities exchange. A moderating role of government policies. *International Academic Journal of Economics and Finance*, 3(8), 1-25.
- Ololube, N. P., & Aminu, M. (2017). The Challenges and Prospects of Small-Scale Farming in Nigeria: An Overview. *International Journal of Scientific Research in Education*, 10(3), 347-357.
- Pandey, I. M. *Financial Management*. 11th ed., Vikas Publishing House, 2018.
- Reddy Y.V and Patkar S.B., (2004). Working capital and liquidity management in factoring: A comparative study of SBI and Can Bank Factors'. *The Management Accountant* May, 39,(5) 373-378.



- Shim, J. K., & Siegel, J. G. (2008). *Schaum's Outline of Financial Management*. McGraw-Hill Professional
- Smith, M. (2020). *Working Capital Management and Finance*. Routledge.
- Warren, C. S., Reeve, J. M., Duchac, J., & Lannon, J. (2021). *Financial and Managerial Accounting*. Cengage Learning.