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EFFECTS ANALYSIS OF MEASURES OF WORKING CAPITAL MANAGEMENT ON FINANCIAL PERFORMANCE OF NON-FINANCIAL FIRMS LISTED IN NIGERIA

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ABSTRACT:

To make the most profitable use of every business' scarce resources and for such organization to actualize the defined goal(s) of its existence, the place of working capital management (WCM) is considered paramount to its continuity and non-exposure to insolvency that often lead to its untimely cessation from business due to the mismanagement of the business' Current Assets and Current Liabilities. Thus, this study analyzed the effect of various measures of working capital management on financial performance of non-financial firms listed on the Nigerian Exchange Group for the period, 2008-2022. The WCM measures used were average collection period and inventory conversion period. As a result, the ex-post facto research design was adopted, with secondary data obtained from annual reports of the sixteen (16) selected non-financial firms. With the aid of Feasible generalized least squares (FGLS) regression analysis, the hypotheses were subjected to test and it was discovered that Average collection period had a significant effect on Return on Assets while Inventory conversion period had an insignificant effect on Return on Assets. Also, Inventory conversion period and Average collection period had a significant effect on Return on Equity. In conclusion, given the advancement of technology with its components of cashless policy, internet advertisement and trading, firms with a good rationing technique and dynamic credit policy that is consistent with reoccurring changes in the competitive domestic and international market can readily benefit from steady increase in Return on Assets and Return on Equity, regardless of the attendant increase in Average collection period and Inventory conversion period from time to time. The study therefore recommends that firms should make the most use of technology and all its facets for business operations and growth purpose so as to adequately serve customers and also maintain adequate liquidity by maintaining a strong customer base..

1. INTRODUCTION

The collapse of Enron, Worldcom in early 2000s were not sudden. It was a gradual process that was largely fueled by the neglect or poor management of the working capital of these victim firms. The case has not been different in Nigeria, especially with non-financial firms which usually ceases operations few years after commencing operations due to observed but neglected inconsistencies in the management of receivables or the trouble with overstayed inventories that unnecessarily tie down the scarce resources of such firms. The implication is that such firms were not able to meet up with the day to day corporate responsibilities of effectively and efficiently managing its Current Assets and Current Liabilities. The management of working capital which is the lubricant of every firm must be done deliberately as the firm keeps observing the dynamic trends of the organisation's measures of working capital management comprising average collection period, average payment period, cash conversion cycle, inventory conversion period and the new cruise of net liquid balance and working capital requirement (Moradi et al., 2012) which go a step further than the traditional indictors. As the forgoing are been observed, the firm must also maintain its gaze steadly on the movement of these measures towards achieving a commendable trade-off between profitability and liquidity, which the firm will not do without. Thus, the success and solvency of any organization depends largely on the efficient and profitable management-mix of these factors during decision making.

This notwithstanding, it is pertinent to note that incessant involuntary winding up of firms in Nigeria especially in the non-financial sectors such as the Services sector, Information and Communication Technology sector, Natural resources sector, Construction/Real estate sector, Oil and gas sector, Industrial goods sector, Consumer goods sector, Conglomerates sector, Healthcare sector and Agricultural sector, remains worrisome and calls for a closer and more pragmatic attention. Could these incidence have been the result or outcome of ill-managed longer average collection period or a longer inventory conversion period? Perhaps, this has been the fears of prior literatures, and despite these scholarly efforts in working capital management and its application at various stages of corporate operations, incidences of illiquidity challenges has continued to trail the unprepared departure of several enterprises from business in Nigeria on annual basis. The same goes for several other related researches deploying the traditional indicators in considering working capital management. Outcome of these empirical investigations has often shown that average collection period has either positively or negatively had significant effect on the financial performance of firms thereby attesting to non-consensus among prior studies on the subject. However, the paucity of

research utilising Return on Equity as a proxy to the measure of financial performance as well as its correlation with inventory conversion period and average collection period has given rise to this study.

1.1 Objectives of the Study

The main objective of the study is to do an analysis of the effect of Working Capital Management indicators on financial performance of non-financial firms listed on the Nigerian Exchange Group.

The specific objectives are:

i. to determine the effect of Average Collection Period on the Return on Assets of selected non-financial firms listed on Nigerian Exchange Group.
ii. to ascertain the effect of Average Collection Period on the Return on Equity of selected non-financial firms listed on Nigerian Exchange Group.
iii. to determine the extent to which Inventory Conversion Period affect Return on Assets of selected non- financial firms listed on Nigerian Exchange Group.
iv. to find out if Inventory Conversion Period significantly affect Return on Equity of selected non- financial firms listed on Nigerian Exchange Group.

1.2 Hypotheses

H_o: Average Collection Period has no significant effect on the Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group.

H_o: Average Collection Period has no significant effect on Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group.

H_o: Inventory Conversion Period do not significantly affect Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group.

H_o: Inventory Conversion Period have no significant effect on Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Measures of Working Capital Management

Working capital management deals with the determination of optimum balance of each component of working capital to ensure that firms have sufficient funds to satisfy their short-term obligations and upcoming operational expenses. Thus, the basic components of working capital management include inventory management, account receivable management, cash management and accounts payable

management (Kantudu, 2009), net liquid balance and working capital requirement (Moradi et al., 2012).

2.1.1.1 Inventory Management

Inventory turnover in days is another important component of working capital management which is also called inventory conversion period (Raheman et al., 2011). According to the researchers, it is the average time required to convert materials into finished goods and then to sell the goods which could either be on cash or credit basis.

2.1.1.2 Account Receivable Management

Receivables management begins with the decision of whether or not to grant credit. Where goods are sold on credit, a monitoring system is important, because without it, receivables will build up to excessive levels, cash flow (liquidity) will decline and bad debts will offset the profit on sales. Corrective action is often needed and the only way to know whether the situation is getting out of hand is to set up and then follow a good receivable control system (Kurawa, 2009). The investment in accounts receivable depends on the volume of credit sales and the average collection period, which is determined by the firm's credit policy (Pandy, 2005).

2.1.1.3 Cash Management

The cash conversion cycle is used in measuring cash management and it represents the interaction between the components of working capital and the flow of cash within a company (Wang, 2002). Cash conversion cycle is one of the several quantitative measures that help evaluate the efficiency of a company's operations and management and can also be used to determine the amount of cash needed for any sales level; it is the period of time between the outlay of cash on raw materials and inflow of cash from the sales of finished goods and represents the number of days of operation for which financing is needed (Ojeani, 2014).

2.1.1.4 Accounts Payable Management

Accounts payable arise when a company buys product or services on credit but does no pay cash immediately. It constitutes a short-term source of finance along with accrued expensesand deferred income. Trade credits could take the form of bills payable or promissory notes (Akinsulere, 2011).

2.1.1.5 Net Liquid Balance (NLB)

Net Liquid Balance (NLB) encompasses all liquid financial assets minus all liquid financial obligations. Liquid assets are cash, marketable securities that can be readily converted into cash, bearing in mind that the account receivables could be bad debts and therefore not readily converted to cash. Net liquid balance show how comfortable a firm can be in the face of usual situations and emergencies (Kenten et al., 2023).

2.1.2 Working Capital Requirement (WCR)

Working capital requirement is a financial metric showing the amount of financial resources needed to cover the costs of the production cycle, upcoming operational expenses and the repayment of debts. WCR are defined as the difference between current requirements and resources which represent spontaneous items associated exclusively with the operating cycle. A firm's Working Capital Requirement (WCR) are similar in terms of interpretation to its financial needs.

2.1.3 Financial Performance

Kenton (2018) defined financial performance as a subjective measure of how well a firm can use assets from the primary state of business and generate revenues. Financial performance is also used as a general measure of an organization's overall financial health over given period of time.

2.1.3.1 Return on Assets

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient and effective a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage and the higher the Return on Assets, the better (Marshall, 2021).

2.1.3.2 Return on Equity

The Return on Equity ratio essentially measures the rate of return that the owners of common stock of a company receive on their shareholdings. Return on equity signifies how good the company is in generating returns on the investment it received from its shareholders.

2.2 Theoretical Review

2.2.1 Trade-off Model

Trade-off model demonstrates that firms decide their optimal level of cash holding by comparing the marginal cost and benefits of holding cash. Large investment in current assets under certainty would mean low rate of Return on Assets (ROA) of the firm, as excess investments in current assets will not earn enough return. A smaller investment in current assets, on the other hand, would mean interrupted production and sales, because of frequent stock-outs and inability to pay to its creditors in time due to restrictive policy. Various studies attempted to examine the relationship between working capital management and financial performance which embodied liquidity as a component and profitability (Deloof, 2003), Raheman and Nasr (2007). The ultimate objective of any firm is to maximize profit. At the same time, preserving liquidity of the firm is an important objective

too. The problem is that increasing profits at the cost of liquidity can bring serious problems to the firm (Shin & Soenen, 1998). Therefore, there must be a trade-off between these two objectives of firms. One objective should not be fulfilled at the cost of the other since both are important.

2.3 Empirical Review

Osei et al. (2023) investigated the impact of working capital management on the going concern of manufacturing businesses in Ghana from 2002-2022, for fifty-five (55) large scale manufacturing companies, using account payable, account receivable and cash management to proxy working capital management. Panel data was employed to analyze the secondary data obtained from annual reports and financial statements and the results showed the need for working capital management, since it influences the going concerns of manufacturing firms. The recommendation was that measures including effective mobilization of inventories, cash, debtors and creditors, should be the main motive of managers and owners of the business.

Ndonwabile (2018) studied the relationship between working capital management and the financial performance of twelve (12) out of 18 companies food and beverages companies listed on JSE for the period of ten (10) years, 2007 to 2016. Secondary source of data was used that is from annual reports and data was analyzed using correlation and regression analysis. The traditional indicators used were; inventory conversion period (ICP), Average collection period (ACP), Average payment period (APP). The findings showed a positive relationship between average collection period and profitability and a negative relationship inventory conversion period and profitability. The researcher recommended that managers reduce their inventory conversion period by reducing prices in order to boost sales revenue, thereby increasing their profitability.

Chowdhury et al. (2018) studied the effect of working capital management on the profitability of Nine (9) out of twelve (12) pharmaceutical companies listed on Dhaka stock exchange (DSE) Bangladesh for the period of fifteen (15) years. The traditional indicators used were; average collection period (ACP), average payment period (APP), inventory conversion period (ICP), cash conversion cycle (CCC) and investment in marketable security (INV). Correlation analysis was used to analyze data. The study found that efficient working capital management is critical for the profitability of firms and financial managers can create values for shareholder by implementation of effective working capital management policy.

Saptarshi (2018) on analyzing the impact of working capital management on profitability, provided a more robust analysis to check the impact of working capital management on profitability of Cement companies in Bangladesh. The study comprised seven (7) Cement companies listed on Dhaka Stock Exchange (DSE) for the period of nine (9) years, 2007-2015, using all-inclusive sampling. The traditional indicators used were; Account Receivable Period, Inventory Conversion Period and Payable Deferral Period, while the dependent variable was represented as Gross Operating Profit. Secondary source was used to obtain data, precisely, Annual Financial reports and Panel data analysis was used. The results showed that for the Cement Industry, working capital management had significant impact on profitability. Cash Conversion cycle, Average Collection Period and Inventory Conversion Period had significant negative impact on profitability. The study recommended that managers can improve profitability by reducing Cash Conversion Cycle, by collecting Cash Receivables faster and selling inventories sooner.

Vaicondam et al. (2016) examined the impact of capital investment on working capital management for a period of five (5) years, 2007-2011, using the Technology firms limited in the Main Board of Bursa, Malaysia. Working Capital Requirement (WCR) and Net Liquid Balance (NLB) were used as indicators of Working Capital Management. Regression analysis was used to analyze data and found that; capital expenditure established a positive significant impact on Working Capital Requirement, and a negative impact on Net Liquid Balance.

Moradi et al. (2012) examined the working capital management of the chemical and medicine listed companies in Tehran stock exchange as its relates to financial crisis, using working capital requirement (WCR) and net liquid balance (NLB) as indicators of Working Capital Management, and debt ratio, operating cash flow and growth rate of company to proxy the dependent variable. The data was analyze using the regression model and at the end the findings showed that debt ratio made more impact on reduction working capital requirement compared to medicine industry. They recommended same study be done in other industries that have important role to play in their countries economy.

3. MATERIAL AND METHOD

The study adopted the ex-post facto research design, with one hundred and six (106) non-financial firms listed on the Nigerian Exchange Group as at 31st December, 2022 serving as the population of the study for a period of fifteen (15) years ranging from 2008 - 2022. Purposive sampling was adopted and sixteen (16) companies were selected across the non-financial sectors based on availability of complete financial year data. These include Livestock Feeds Plc., UACN Plc., Guinness Nigeria Plc.,

Honeywell Flourmills Plc., National Salt Company of Nigeria, PZ Cussons Plc., Unilever Nigeria Plc., Nestle Nigeria Plc., Dangote Sugar Plc., Julius Berger, Fidson Healthcare, May and Baker, Glaxo Smithkline, CHAMS Holding Company, CAP Plc and University Press Nig. Plc. The Average Collection Period and Inventory Conversion Period were used as measures for the independent variable, working capital management while Return on Assets and Return on Equity served as proxies to the dependent variable, financial performance. In order to estimate the model and examine the proposed hypotheses, feasible generalized least square regression model will be used. Thus, the following regression model were estimated:

$ROA_{it} = \alpha_0 + \beta_1 ACP_{it} + \varepsilon_{it}$…… eq 1

$ROE_{it} = \alpha_0 + \beta_1 ACP_{it} + \varepsilon_{it}$…… eq 2

$ROA_{it} = \alpha_0 + \beta_2 ICP_{it} + \varepsilon_{it}$…… eq 3

$ROE_{it} = \alpha_0 + \beta_2 ICP_{it} + \varepsilon_{it}$…… eq 4

$ROA_{it} = \alpha_0 + \beta_1 ACP_{it} + \beta_2 ICP_i + \varepsilon_{it}$…… eq 5

$ROE_{it} = \alpha_0 + \beta_1 ACP_{it} + \beta_2 ICP_{it} + \varepsilon_{it}$…… eq 6

Where:

ROA = Return on Asset

ROE = Return on Equity

$_{it}$ = time period of the study

ε = error term

$\beta_{1,2}$ = measure the effect of ACP, ICP, on financial profitability

ACP = Account Collection Period

ICP = Inventory Conversion Period

3.1 Decision Rule

Accept Alternate hypothesis if P-value < 0.05

Reject Alternate hypothesis if P-value > 0.05

4. RESULT AND DISCUSSIONS

The study analyzed the effect of Working Capital Management indicators on the financial performance of non-financial firms on the Nigerian Exchange Group. A sample size of sixteen firms was obtained while a period of fifteen (15) years was deployed in the study, which spanned from 2008 to 2022. The data collected yielded 240 firm-year observations.

4.1 Descriptive Analysis of Data

The analysis of descriptive properties of the data was done via mean, standard deviation, maximum and minimum values as produced by Stata 14.1 statistical software. The output of the descriptive statistical analysis of data is shown below in Table 1.

Table 1 Descriptive Analysis of Data

Variable	Obs	Mean	Std. Dev.	Min	Max
ACP	240	132.6958	475.4395	0	6043
ICP	240	200.5443	570.1555	0	7932.406
ROE	240	3.619999	5.90749	0	74.00378
ROA	240	.1140176	.2075786	-.7752892	2.055363

Source: *Stata 14.1 Analysis Output (2023)*

Table 1 shows the mean, standard deviation, minimum and maximum values of the variables. The proxies for working capital are: Average Collection Period and Inventory Conversion Period. The proxies for financial performance are return on equity and return on asset.

4.2 Test of Hypotheses

The hypotheses of the study were subjected to test after estimating Feasible generalized least squares (FGLS) regression. The full FGLS outputs for Models A and B are presented in Appendix II but the relevant parameters for hypotheses testing are succinctly presented in Tables 2 and 3 below.

Table 2 FGLS regression Output for Model A (ROA)

Variable	Coefficient	Prob.
ACP	.0000273	0.013
ICP	0.00000961	0.091
C	.0588781	0.000
Wald chi2(4)	12982.54	
Prob > chi2	0.0000	

Source: *Stata 14.1 Analysis Output (2023)*

Table 2 presents the results of the Fixed Effects Generalized Least Squares (FGLS) regression analysis for Model A, specifically focusing on the dependent variable of ROA. The coefficients, standard errors, and p-values are reported for each of the independent variables.

Table 3 FGLS regression Output for Model A (ROE)

Variable	Coefficient	Prob.
ACP	.0011418	0.000
ICP	.0007696	0.000
C	4.384638	0.000
Wald chi2(4)	6856.67	
Prob > chi2	0.0000	

Source: *Stata 14.1 Analysis Output (2023)*

Table 3 presents the results of the Fixed Effects Generalized Least Squares (FGLS) regression analysis for Model B, focusing on the dependent variable of ROE. The table provides information on the coefficients, standard errors, and p-values associated with each independent variable.

4.3.1 Hypothesis One

H_o: Average Collection Period has no significant effect on the Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group.

Table 4 FGLS regression Output for Effect of Average Collection Period on ROA

Variable	Coefficient	Prob.
ACP	.0000273	0.013

Source: *Stata 14.1 Analysis Output (2023)*

The regression results in Table 4 show that ACP has a coefficient of .0000273 and a significant p-value of 0.013, indicating a positive relationship between ACP and ROA. This suggests that as the average collection period increases, the financial performance, as measured by ROA, tends to increase.

4.3.1.1 Decision: Since the p-value of 0.013 is less than 0.05, the alternate hypothesis was accepted that Average Collection Period has a significant and positive effect on the Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group (β = .0000273, *p*-value = 0.013).

This finding suggests that as the average collection period increases, the ROA increases for these firms. The finding of this study agrees with Ajayi et al. (2015), Tanveer et al. (2016) and disagrees with Muia et al. (2017) and Salami et al. (2019). The ACP represents the average number of days it takes a company to collect owed payments from its customers. A longer ACP indicates that customers are taking more time to settle pending invoices, and this can lead to serious cash flow issues and low profitability. Companies with longer ACP can attract more customers when offer of lenient credit

terms is accessible. This, as a result, may incentivize clients to make purchases on credit due to the extended payment window, thereby leading to potential increase in sales volume and market share of the company on the short term, and further culminating into increase in Return on Assets. The emergence of COVID-19 pandemic which played effective role in the upsurge in global reliance of people on technology, also cleared the long lingering scientific doubts as effective and efficient observance of trading globally without any need for physical human contact, so that the customers could make their purchases online and have such goods brought to the door-step of the customer without any physical contact with the sellers or suppliers. Similar situation applies to payment for such goods which can be made from the comfort of the homes of the buyer/debtors as at when due.

4.3.2 Hypothesis Two

H_o: Average Collection Period has no significant effect on Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group.

Table 5 FGLS regression Output for Effect of Average Collection Period on ROE

Variable	Coefficient	Prob.
ACP	.0011418	0.000

Source: *Stata 14.1 Analysis Output (2023)*

The regression results in Table 5 reveal that ACP has a coefficient of .0011418 with a p-value of 0.000. The positive coefficient suggests that as the average collection period increases, the financial performance, as measured by ROE, tend to increase.

4.3.2.1 Decision: Since the p-value of 0.000 is less than 0.05, the alternate hypothesis was accepted that Average Collection Period has a significant and positive effect on the Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group ($\beta = .0011418$, *p*-value = 0.000).

This result indicates that a longer average collection period is associated with a higher ROE. This also disagrees with the finding of Malik and Bukhari (2014) and Chowdhury et al (2018). The ROE measures the return on the shareholders' equity and reflects the profitability from the perspective of the company's owners. Although, a prolonged ACP suggests that a larger portion of the company's funds is tied down in accounts receivable, it also incentivize clients to make purchases on credit due to the extended payment window, and thereby increasing shareholders return. Similar to the effect on Return on assets, once the firm have access to adequate liquidity, it paves way for additional investments which will bring more gain to the firm therefore increasing returns for shareholders or owners of the business, by way of dividends.

4.3.3 Hypothesis Three

H_o: Inventory Conversion Period does not significantly affect Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group.

Table 6 FGLS regression Output for Effect of Inventory Conversion Period on ROA

Variable	Coefficient	Prob.
ICP	0.00000961	0.091

Source: *Stata 14.1 Analysis Output (2023)*

The regression results in Table 6 show that ICP has a coefficient of 0.00000961 and a non-significant p-value of 0.091, indicating a positive relationship between ICP and ROA. This suggests that as the inventory conversion period increases, the financial performance, as measured by ROA, tends to increase.

4.3.3.1 Decision: Since the p-value of 0.091 is greater than 0.05, the null hypothesis was accepted that Inventory Conversion Period has a positive but non-significant effect on the Return on Assets of selected non-financial firms listed on the Nigerian Exchange Group (β = 0.00000961, *p*-value = 0.091).

This finding implies that an increase in the inventory conversion period is linked to higher ROA for the selected firms. This findings do not concur to the findings of Yusuf (2014) and Okoye et al. (2016). The ICP measures the average number of days it takes for a company to convert its inventory into sales. Typically, a longer ICP indicates potential inefficiencies in inventory management which should negatively impact profitability. However, in this context, it is possible that certain industries or specific firms are experiencing unique circumstances where longer ICP is positively correlated with ROA and ROE. This could be due to various factors such as industry-specific inventory patterns, production cycles, or pricing strategies. Technology is key in our current world, and makes room for 24 hours or round the clock trading. So, with the boundaries of physical contact between buyer and seller broken, firms have come to realise that the firm's inventory may most likely stay longer amidst experiencing slowed production of goods to meet the ever rising demand in the online market. This readily exposes the firm to the risk of losing some potential customers to other competitors/suppliers. Firms, in order to maintain inventory for a long time amidst making good Returns on Assets, need to imbibe the use of reoccurring and consistent online advertising tools so as to attract new customers with attractive prices especially where new brands and/or new products are involved. While firms use

this method to secure new and retain existing customers, the need for steady production of goods within a defined limit that will not allow the firm witness stock out of finished goods or go illiquid cannot be overemphasized.

4.3.4 Hypothesis Four

H_o: Inventory Conversion Period have no significant effect on Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group.

Table 7 FGLS regression Output for Effect of Inventory Conversion Period on ROE

Variable	Coefficient	Prob.
ICP	.0007696	0.000

Source: *Stata 14.1 Analysis Output (2023)*

Table 7 indicates that ICP exhibits a positive relationship with ROE. It has a coefficient of .0007696 and a p-value of 0.000. This indicates that an increase in the inventory conversion period is associated with an improvement in ROE. Therefore, a longer time to convert inventory into sales may positively affect a firm's return on equity.

4.3.4.1 Decision: Since the p-value of 0.000 is less than 0.05, the alternate hypothesis was accepted that Inventory Conversion Period has a significant and positive effect on the Return on Equity of selected non-financial firms listed on the Nigerian Exchange Group ($\beta = .0007696$, p-value = 0.000). This findings do not concur with the findings of Malik and Bukhari (2014) and Chowdhury et al. (2018). By effectively managing inventories, companies can optimize its sales and production processes, leading to higher returns for shareholders. This is because once there is adequate liquidity, firms will quickly invest, so as to prevent idle funds. By this, there abound sufficient room for more funds to flow in as revenue which will in turn increase the earning of the shareholders of the business by way of dividend paid.

CONCLUSION AND RECOMMENDATIONS

The study found that Average Collection Period (ACP) has a positive effect on the Return on Assets (ROA) and Return on Equity (ROE) of selected non-financial firms. This suggests that as the average collection period increases, the financial performance of these firms tends to increase. The longer it takes to collect receivables, the more customers are incentivized to make more purchases, increasing the firm's returns with the current reality of technology and a functional credit policy. Also, Inventory Conversion Period (ICP) has a positive effect on ROA and ROE. Although a longer ICP suggests inefficient inventory management, the companies are able to hold inventory for a longer time while still achieving strong sales, leading to improved profitability and higher ROA and ROE, which was

brought by the advantage that technology had brought with the attendant use of an effective on-line advertisement, penetrating prices and considerate rationing of available stocks, so that all customers could be attended to without fail.

Based on the findings of the study, the following recommendations can be made:

1. To improve the Return on Assets and Return on Equity, non-financial firms should maximize the use of technology and cashless system, alongside flexible credit policies and managing their cash flow effectively to ensure long-term financial stability and sustained profitability.
2. Non-financial firms should aim to optimize their Inventory Conversion Period to enhance their Return on Assets and Return on Equity. Strategies such as efficient inventory management with rationing techniques, adequate on-line advertisement, use of penetrating prices for new products, forecasting demand accurately, and maintaining steady productions with limits can keep the Return on assets, Return on equity on the increase in spite of increase inventory conversion period.

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