Mediating effect Inflation on the relationship between Working capital Management and Profitability of Small and Medium Enterprise (SMEs) for Sustainable in North Eastern Nigeria

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Abstract

This study examines the mediating effect of inflation on the relationship between working capital management and profitability of listed Small and Medium Enterprises in North Eastern Nigeria. The study covers the period of ten 10 years (2012 -2021) with the population of two hundred and twenty one listed Small and Medium Enterprises in North Eastern Nigeria as at 31st December 2021. The study adopted Correlation Research Design. The data were analyzed using OLS multiple regression technique. The study findings are that: Account Receivable Day (ARD) and cash Conversion Circle (CCC) has a positive significant impact on the Return on Asset (ROA) of SMEs in Nigeria at 1% significance level, Account payable Days (APD) has a negative insignificant impact on the Return on Assets (ROA) of SMEs in Nigeria at 1% level of significance. Inventory Turnover Day (ITO) has a negatively significant impact on the Return on Asset (ROA) of SMEs in Nigeria at 1% level of significance. Inflation also has positive and significant effect on the relationship between working capital management and profitability. The study recommend among others: The management of the Small and Medium Enterprises in North Eastern Nigeria should enhance the performance of the SMEs by maintaining the number of days in inventories to a reasonable level, should reduce the account receivable days so as to boast the profitability and performance of the companies. Also the companies should make judicious utilization of their resources by reducing the cash conversion cycle of the companies to a barest minimum, this shall in turn increase the company profitability. Also, potential investors, small business and government as well as government agencies should consider the need to examine the effect of inflation on working capital management when taking investment decision.

Introduction

An organization can be said to have perform well if the profitability is increasing and can be said to have perform poorly if the profitability is decreasing. Firms with a sound profitability can be able to manage their short term and long term assets, pay their tax and other obligations without difficulties. Profitability can be measured using indicators such as return on equity, return on asset and return on capital employed. Profitability is seen as the ability of the business to earn profit or gain (Tauringana & Afrifa, 2013; Obalemo *et al*, .2020). The success and growth of any business depend on its profitability (Onwumere, Ibe & Ugbam, 2012;Obalemo *et al*,.2020).One can conclude that the long-term survival of a business is very much dependent on its profitability. A business profit is the difference between all its revenue and all its operating expenses (Oladipupo & Okafor, 2013; Obalemo *et al*, .2020). The major goal of any business entity is profit (Al-Debi'e, 2011).

Working Capital Management refers to a company's managerial accounting strategy designed to monitor and utilize working capital components (current assets and current liabilities) to ensure the most financially efficient operation of the firm (Investopedia. 2018). Working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet short term obligations when due and to avoid excessive investment on current assets which leads to idle cash (Eljelly, 2004). Weston & Bringham (2015), defined working capital management as investment in short term assets. Working Capital Management is important as it has direct impact on the profitability of firms (Ray, 2012). To maintain liquidity and profitability of an organization, its working capital should be managed efficiently (Nazir & Afza, 2009). This entails planning and controlling current assets and current liabilities of firms with the view to reduce the risk of inadequate and non-availability of cash (Adeniji, 2008).

Working capital management became important and necessary during the financial crisis up to 2008 because the cost of long term debt increases and the new cost levels become difficult to attain, hence the need to manage working capital, especially when it can influence firm profitability and risk (Smith, 2018). Keeping larger inventory by a firm reduces the likely risk of a stock-out (Rahem & Nasr, 2007), even at that, inventories are not to be kept at an arbitrary level, there is the need for deliberate planning and continuous check on the inventory. Firms sometimes bought goods on credit from its suppliers meant to be payable in the near future, delaying payment to suppliers allows a firm to assess the quality of products bought, and can be an inexpensive and flexible source of working capital for the firm (Perri, 2008). This in essence allows firms to utilize the available cash that ought to be used for paying for supplies to another profitable investment opportunity. However, late payment of invoices can be very costly 4
if the firm is offered a discount for early payment (Rahem & Nasr, 2007).This decision process need to be taken by top management and is considered as payables management and as a component of working capital, it can be seen as working capital management (Cannon, 2008).

Managing working capital efficiently, increases firm''s profitability and shareholder value (Dong & Su, 2010). In addition, the benefits of having an efficient working capital management is that the firms would be able to meet its short term obligations and maintain adequate liquidity position in order to continue the operation of the firms (Dalayeen, 2017). In line with this, working capital management decision is an important factor as it determines the firm''s value maximization and shareholders wealth (Dong & Su, 2010).

Empirical study on the relationship between Working Capital Management and profitability dwelling on SMEs in Nigeria must be ubiquitous to enable entrepreneurs have information at the snap of their finger. These should be the material that will drive their firms forward by sustaining firms operation so that Nigeria will be positioned in the community of industrialized nations. Nigeria has in its Vision of becoming one of the 20th Industrialized Economy in the World by year 2020 and a leading Economy in Africa; Nigerian Industrialist need to know the importance of managing their Working Capital and the relationship that exist thereto with profitability for Nigeria to sustain the tide. Adequate knowledge on Working Capital Management in the SMEs will help in solving the Country's developmental challenges such as unemployment, poverty and other related problems; as its industries will flourish as they become profitable. Many SMEs earlier established have either folded or are performing very low due to their improper management of working capital which results in lack of appropriate financing and access to trade credit (Masocha & Dzamonda, 2016, Enow & Brijlal, 2014).

It has been found that there are a lot of research work on working capital management and profitability but there is none that dwell on SMEs in terms of Inflationary trends in Nigeria. This has created a gap in the body of knowledge in the Industrial Goods Firms in Nigeria. With this research, material will be made available that dwells on SMES in Nigeria. The research shall make materials available which inevitably bridge the gap that exits from the paucity of materials dwelling on the mediating effect of inflation on the relationship between Working Capital Management and Profitability of listed SMEs in Nigeria. With this material, there is no need for extrapolation of information that will suffice for knowledge among SMEs in Nigeria.
This gap in knowledge is to be filled by conducting a study on the Impact of Working Capital Management on the Profitability of listed SMEs in Nigeria.

2. LITERATURE REVIEW

Inventory conversion period and profitability

Hussain (2023) investigated the relationship between ICP and firm profitability (ROE) of Pakistan cement sector. The sample period of the study is from 2017-2021. The data was taken from Karachi Stock Exchange, Published reports of SBP and respected firm site. Panel Data methodology was used. Results showed that ICP has a significant positive relation with firm performance. Dadan & Hakiman (2023) examined and analyze the impact of inventory conversion period on profitability (return on assets) of automotive and component sub-sector firms listed on the IDX from 2011 to 2021. The study used purposive sampling method which led to the selection of 11 firms with 121

observations. Panel data regression using the Common Effect Model is the method of analysis used. The results of this study revealed that inventory conversion period have a significant negative effect on profitability (return on assets).

Jonah *et al* (2023) determined the relationship between inventory conversion period and profitability (net profit margin) of listed industrial goods companies in Nigeria. The study applied ex-post facto research design. Secondary data were used in the study, which was collected from ten listed industrial goods companies in Nigeria for the 2018 to 2020 financial year. The statistical tools used for the study were descriptive statistics, regression analysis and Pearson's product-moment correlation coefficient. The result revealed that there is a significant positive relation between inventory conversion period and profitability. Benedict *et al* (2023) investigated the effect of ICP on firm profitability of listed manufacturing companies in Malaysia. Secondary data was collected from 2009-2018 and was obtained from the published annual report via Bursa Malaysia official website. Data was analyzed using descriptive statistics, correlation and multiple regression analysis. The results revealed that ICP has a positive and significant relationship with profitability.

Average collection period and Profitability

Arvin and Yunieta (2023) explored the crucial role of average collection period on profitability. The study used panel data regression on healthcare and transportation companies listed on the Indonesia Stock Exchange from 2017 to 2021 the result found that average collection period has positive effect on profitability (ROA).Githiga & Koori (2023) studied the effect of ACP on profitability of agricultural firms listed on Nairobi stock exchange, they used descriptive and correlational research design. Secondary data were collected from 2016-2022.The regression result indicated that ACP has a significant negative relationship with financial performance.

Lazarus *et al* (2023) investigated the effect of average collection period on profitability of manufacturing firms listed on Ghana Stock Exchange. The paper used cross-sectional study that is quantitative in nature. A panel data of six (6) listed Ghanaian manufacturing firms on the Ghana Stock exchange from 2011-2020 was used .Data was obtained from the audited financial statements of the firms. Correlation and Ordinary Least Square (OLS) multiple regressions were employed to analyze the data. The finding revealed that there is statistically negative (Beta = -0.201) and significant (P-value = 0.000) effect of average collection period on profitability (return on assets). Ahmed and AlokKumar (2022) examined the link between ACP and profitability. The study used data of 15 trading companies from USA.The study revealed that ACP negatively affects profitability. Wokeh (2022) examined the effect of ACP on profitability (ROA) of real estate and construction companies listed in Nigeria. Ex post facto research design was used for the study with a population of six real estate and construction companies. Data were retrieved from the annual reports of the selected companies from 2012-2021. Multiple regressions were used to analyze the data.

Creditor's Payment Period and Profitability

Rupali *et al* (2023) investigated the effect of creditor's payment period (CPP) on the value of manufacturing enterprises in India. The study used Tobin's Q to measure the value of the firms and balanced-panel data analysis was used employing a two-step generalized method of moment technique. The findings revealed that creditor payment period has insignificant positive effect on firm value (Tobin's Q). Haniya *et al* (2023) this study examined the effect of creditor's payment period on the profitability (ROA) of ten cement businesses that are listed on the Pakistan Stock Exchange. A systematic selection technique was used to choose every tenth of Pakistani cement industry for the study. The websites of the cement businesses was used to collect data from the annual reports. Financial ratios were used in the study and quantitative data analysis was used to determine whether the link between the variables was positive or negative. According to the study findings, the creditor's payment period has a significant negative effect on profitability. Nhat (2023) investigated the impact of creditors payment period on profitability for 29 energy companies listed on the Ho Chi Minh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX), using panel data for six years from 2016-2021. The researchers applied regression analysis with panel data; Feasible Generalized Least Squares (FGLS) method was also used to deal with the issue of heteroscedasticity and autocorrelation. The regression results revealed that creditor's payment period has negative and significant effect on profitability (ROS).

Cash Conversion Cycle and Profitability

Mohamed *et al* (2023) analyzed the effect of CCC on profitability of SMEs in Egypt. The study used annual reports of 576 SMEs from 2018-2021 because the period includes many events such as the COVID-19 pandemic and the economic reform programs undertaken by the government of Egypt. The outcome revealed that there is a significant negative relationship between CCC and profitability (ROE, ROA).Ozkaya & Yasar (2023) investigated the link between working capital management and profitability of food and beverages companies listed on the European stock exchange. They used panel data methodology, the result revealed that CCC negatively influence profitability. Mega *et al* (2023) investigated the effect of cash conversion cycle on profitability. The study used 12 samples of building construction sub-sector companies listed on the IDX from 2018 2021 using paired tests and panel data regression. The results showed that cash conversion cycle has negative and significant effect on profitability.

Okeke (2023) examined the relationship between cash conversion cycle and corporate profitability of listed industrial goods companies in Nigeria. The study used panel data from 2017 to 2021. The population comprised of twenty-one (21) consumer goods firms listed on the Nigeria Stock Exchange. Secondary data were sourced from annual reports and accounts of the sampled firms. Data were analyzed using Pearson correlation model in SPSS. Findings showed a positive and significant relationship between cash conversion cycle and profitability (return on assets). Umar *et al* (2020) examined the effect of CCC on the profitability of public listed firms in Australia. The study revealed that CCC has a negative effect on financial performance.

THEORETICAL UNDERPINNINGS

Lean Theory

The theory was introduced by in 1991 James, Daniel and Daniel. This theory stated that the delivery of a product or service must provide value to customers. It is employed to scrutinize processes in order to minimize wasteful activities that do not add value for the customer. Lean theory is specifically concerned with optimizing costs in inventory systems (Feinberg & Keane, 2006; Moedu *et al*,.2023). This approach expedites decision-making regarding manufacturing, warehousing, and other supply chain considerations (Schwarz, Ulhassan, Thor & Westerlund, 2014; Moedu *et al*,.2023).The theory builds upon the economic order quantity (EOQ) model, which aims to optimize the quantity of any individual item ordered. Economic Order Quantity (EOQ) Model is amongst one of the most well-acknowledged conventional production planning models. The model was developed in 1913 by Ford W. Harris, while the application of the model and its in-depth examination was credited to R. H. Wilson.

Lean theory is relevant to the study since it postulates that the implementation of lean practice in a firm enables the adoption of diverse operating systems for monitoring inventory levels that enhance firm effectiveness (Schwarz, Ulhassan, Thor & Westerlund, 2014; Moedu *et al*, .2023). At a macro level, the strength of the Lean theory lies in both the timing and magnitude of its adoption. The theory asserts that inventory management limits a firm's ability to respond to fluctuations in demand (Feinberg & Keane, 2006; Moedu *et al*,.2023). According to Lean theory, inventory control is a critical element of any supply chain, whether it involves products or services. The effectiveness of inventory control is essential to achieving increased profitability, responsiveness, flexibility, cost efficiency, and asset management.

Credit Theory

A sale and purchase, according to the Credit Theory, is the exchange of a commodity for credit. A company's trade credit is critical since it aids in the acquisition of new customers. Selling on credit becomes unavoidable when there is competition in the industry (Bushe, 2019; Wilson, 2023). If a company does not give credit to its customers, it will lose them to competitors. As a result, investing in accounts receivables may not be an option, but rather a necessity. Given that receivables investment includes both benefits and costs, it is critical to maintain such a level of receivables investment while maintaining the twin objectives of liquidity and profitability (Kiptoo,2017; Wilson, 2023).Trade credit is very important to a firm because it helps to protect its sales from being eroded by competitors and attract potential customers to buy at favorable terms (Khumalo,2014; Wilson, 2023).Selling on credit is unavoidable if there is competition in the sector. If a company does not give credit to its customers, it will lose them to competitors. As a result, investing in accounts receivables may not be an option, but rather a necessity.

Transaction Cost Theory

Postulated by Ferris in the year 1981, the theory states that good management of payables can be able to reduce the transaction costs of paying bills. What this essentially means is that an organization can accumulate the bills and make monthly or quarterly payments for all of them as opposed to having to run errands every day engaging different people hence increasing the cost for the organization. Therefore, the company should distinguish between the production plan and the payment period (Williamson, 2013; Yusuf, 2022). What is more, is that the organization can be able to maintain product flow by making arrangements for large inventories through credit. This might increase the cost of storage and warehousing of the inventory. However, the theory does not consider the type, size, and mode of business operation when linking account payable to profitability. The transaction cost theory, therefore, enables the researchers to develop a plan for regulating and managing the inventories and payables of different companies and their impact on the organization's profitability (Deloof, 2003;Yusuf,2022). This theory is based on the management and regulation of expenditure on payables so that to maximize the expected revenue which then translates to profit. A firm or an investor can end up settling payables in time and end up reducing the cash available for running the business. This would eventually affect and reduce the sales levels (Deloof, 2003; Yusuf, 2022). This study underpinned the theory because it supported the cash payable relationship and how they can affect profitability.

Cash Conversion Cycle Theory

Cash conversion cycle (CCC) was suggested and developed by Richards and Laughlin (1980). CCC is a time lag between cash payment for raw materials purchased or services enjoyed from suppliers on credit and collection of cash from customers (Angahar & Agbo, 2014; Okphiabhele *et al.,*2022).Naveed et. al. (2014) and Okphiabhele *et al* (2022) opined that it is the period for converting short term resources into cash considering the time of selling inventory and collection of cash from receivables (Akindele & Odusina, 2015 Okphiabhele *et al.,*2022).CCC is calculated by summing ACP and ICP and subtracting CPP (Azeez, 2015; Okphiabhele *et al.,*2022).The theory postulated that when all factors remain fixed, the profitability and liquidity will increase when the CCC is short, thus guaranteeing efficient working capital (Gitman, 1991;Duncan,2022).Firms can slow down payments to suppliers and motivate customers to pay their bills within the stipulated credit period or earlier to keep the CCC shorter. SMEs and other businesses can maintain enough level of working capital when the theory is used to strike a balance between payment and collection periods; this will allow ensures business survival at the same time maximize profitability and owners wealth (Duncan, 2022).The CCC theory is significant, especially during the period of financial crisis (Belghitar& Khan, 2013).

2.5   CONCEPTUAL FRAMEWORK

The model framework showing the interrelationship among variables was conceptualized below:
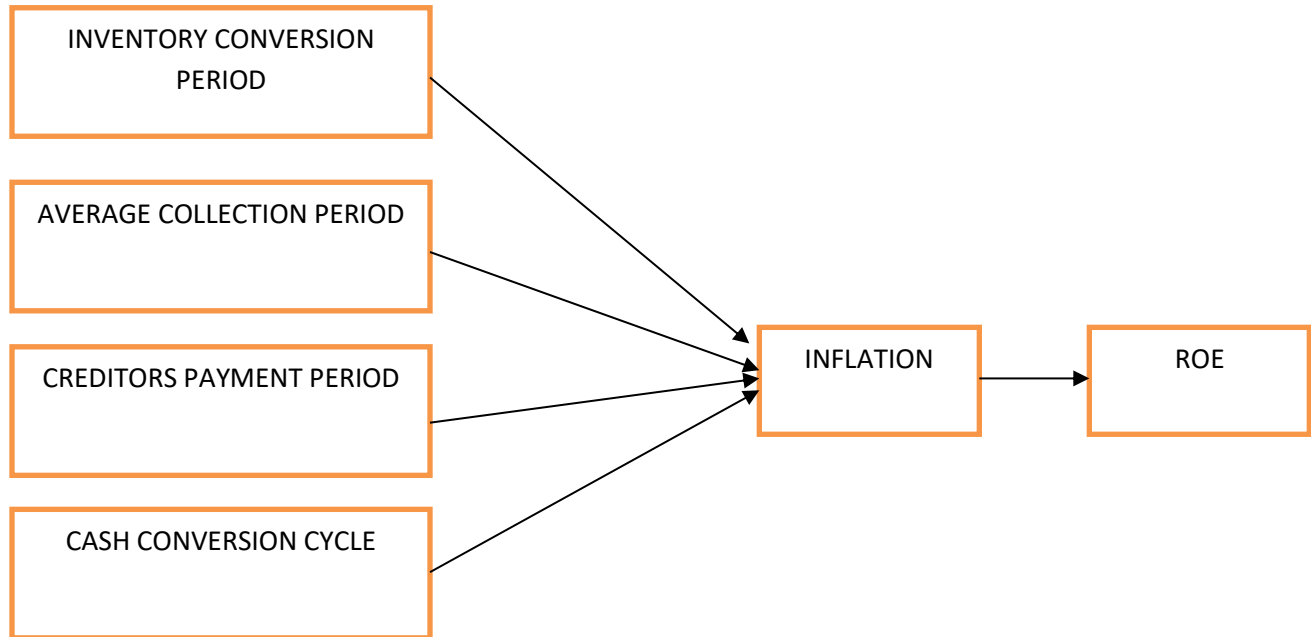
Framework adapted and modified from Ali *et al* (2023)

3. METHODOLOGY

This study used quantitative approach to evaluate the data. This approach is chosen because it will provide a precise numerical data, allow objectivity and precision of outcome and the result will be relatively independent of the researcher (Tafa & Toleshi, 2023). This study employed panel data (longitudinal) design to examine the mediating effect of inflation on the relationship between working capital management and profitability of listed SMEs in Nigeria. The panel data design used is one whose observation is calculated by multiplying the number of the sampled firms for the study and the number of years for which the data will be collected (Etim *et al*, 2022). Multiple regression was used to estimate the models.

Population of the Study
Population consist of individuals, dyads, groups, organizations, or other entities one seeks to understand and to whom or to which the study results may be generalized or transferred and is the principal group about which the research is concerned. The population of the study comprised of 221 listed SMEs within the North eastern Nigeria

Instrument for Data Collection

The main instrument for data collection in this study is the published financial statement of the sampled SMEs . It comprised of the annual reports (Ubesie *et al.,* 2023).

Method of Data Collection

The data were collected via secondary sources. The annual financial statement of the sampled firms was used to collect the data. The researcher visited the official web sites of the sampled firms to download the published financial statements. The researcher seek the assistance of experts to help him download the financial statements easily.

Method of Data Analysis

First the researcher enter the data obtained into excel and then calculate the ratios required for the analysis. The data will be analyzed using STATA software.

RESULT AND DISCUSSION

Descriptive Statistics

The descriptive statistics is presented in table 4.1, it provides the summary of the minimum, maximum, mean and standard deviation of the data for the variables used in the study. The full result is attached as appendix B.

Table 4.1 Descriptive Statistics

Statistics	Min	Max	Mean	Std. Dev	Skewness	Kurtosis
ROA	-12.9631	45.13098	35.34678	8.197877	2.497439	10.41736
ICP	0.039427	7.374495	0.7741527	0.9861107	3.958235	22.96132
ACP	0.8678861	4.895925	3.146552	0.9508836	0.0147116	2.184866
CPP	1.001316	5.573143	2.967361	1.214121	0.2258239	2.192612
CCC	0.2191326	4.895925	2.911197	1.26525	-0.5562922	2.639912
IFLAT	0.0140006	1.013704	0.2312203	0.2544229	1.042209	3.035629

Source: STATA Output

Table 4.1 presents and shows the details of the accounts of descriptive statistics for the dependent variable (ROA) and independent variables inventory turnover day (ITO), account receivable day (ARD), account payable day (APD) and cash conversion cycle (CCC). It is clear that there is wide variation between the ROA standard deviation of approximately 8.197877 and the mean of approximately 35.34678, the wide variation is a function of the negative minimum value of -12.9631. This negative minimum suggested that the ROA of SMEs in North Eastern Nigeria resulted into some losses during the period under review.

While the mean value of 35.34678 as well as the standard deviation value of 8.197877 means that there is variation in the firm performance. The standard deviation indicates the movement of the return on asset between the minimum and the maximum, the higher the value of the standard deviation the higher would be the rate of deviation from the mean by implication. However, the skewness of (2.497439) which implies that the distribution is skewed to the right and a kurtosis of (10.41736) suggest that the distribution is not normal or perfectly symmetrical but Leptokurtic, since the Kurtosis is greater than 3.

Similarly, the table indicates that the inventory turnover days from the sample of SMEs in Nigeria has an average value of 0.7741527 days a standard deviation of 0.9861107 days and minimum value of 0.0394. The maximum of 7.374495, is an indication of the fact that stocks are not kept too long, it is kept maximally for Eight (8) days, the standard deviation value of the sample SMEs in North Eastern Nigeria deviate from the mean value from both sides by Nine (9) or approximately Ten (10) days which implies that there is average dispersed data from the mean because the standard deviation is not too large. The result of the skewness is (3.958235) and kurtosis (22.96132), this statistical result indicates that the data is skewed to the right this is another pointer to the fact that the data is not normally distributed. Also, with a kurtosis of 22.96132, it suggest that we have a Leptokurtic distribution as the data are not normally distributed, this is a confirmation of the inference drawn from the result of skewness.

Similarly, from table 4.1, it can be seen that the mean of the account receivable days of the sample SMEs in North Eastern Nigeria is 3.146552 days with the standard deviation of 0.9508836 days with a minimum value of 0.8678861 and maximum value of 4.895925, this shows that Account Receivable Days of the sample Industrial Goods Firms is on average of Three (3) days. The maximum is approximately Five (5) days while the minimum of advance payment of approximately One (1) day. The standard deviation value shows that the sampled firms" Account Receivable (ARD) deviates from the mean value from both sides by approximately Two (2) days. This implies that there is significant dispersion of the data from the mean because the standard deviation is not too large. The result of the skewness is (0.0147116) and kurtosis (2.184866), the statistical result indicates that the data is skewed to the right this depicts that the data is not normally distributed. However, a kurtosis of (2.184866) which is less than Three (3) suggest that we have a platykurtic distribution from the data.

The table 4.1 also indicates that the mean of the Account Payable days of the sample SMEs in North Eastern Nigeria is 2.967361 days, while the standard deviation is 1.214121 day. The minimum value is 1.001316 and maximum value of 5.573143 days for the company to pay their suppliers. This indicates that the performance of SMEs in North Eastern Nigeria in respect to the time taken to pay their supplies is on the average of approximately Three (3) days and maximum of approximately Six (6) days. The standard deviation value shows that the Firms Account Payable Days deviate from both side of the mean by more than a day. This indicates a significant level of dispersion from the mean even though it is not too high. The result of the skewness is (0.2258239) which suggest that data distribution is skewed to the right and a kurtosis

of (2.192612) suggesting that we have a platykurtic shape of the distribution, this is also a confirmation of lack of normality in the distribution of the data.

In the same vein, table 4.1 shows that the mean of the Cash Conversion Cycle (CCC) of the sampled SMEs in North Eastern Nigeria is 2.911197 which indicated a good working capital management with standard deviation of 1.26525 day. The minimum of 0.2191326 and maximum of 4.895925, this imply that the minimum and the maximum days to recover cash from sales are approximately less than One (1) day and Five (5) days respectively. This shows that Cash Conversion Cycle of the sampled Firms deviates from the mean value from both sides by approximately one (1) day, meaning that there is less significant dispersion of the data from the mean because the standard deviation is not too high.

Also 4.1 show that the mean of the Inflation of the sampled SMEs in North Eastern Nigeria is 0.2312 with standard deviation of 0.2514. The minimum of 0.0014 and maximum of 1.0137, this implies that the minimum and the maximum inflation to recover cash from sales are approximately less than one percentage respectively. This shows that inflation of the sampled S M E s deviates from the mean value from both sides by approximately one (1) percentage, meaning that there is less significant dispersion of the data from the mean because the standard deviation is not too high.

Table 4.5 Summary of Regression Results

Variables	Beta Coefficient	t-values	Sig	VIF	1/VIF
ARD	89.14817	5.97	0. 000	1.36	0.841267
APD	-11.8755	-0.30	0.766	1.19	0.736157
ITO	-297. 0955	-2.92	0.004	1.49	0.672883
CCC	44. 0434	1.93	0. 054	1.36	0.745955
INFLAT	-240.8686	1.91	0.059	1.17	0.853396
Constant	-432.6065	-1.39	0.164		
R^2					0.3588
F-Statistic					54.84
F-Sig					0. 000

Source: STATA Output

The cumulative R^2 (0.3588) which is the multiple coefficient of determination gives the proportion or percentage of the total variation in the dependent variable (ROA) as explained by the independent variables (Average Receivables, Average Payables, Average Inventory

Turnover and Cash Conversion Cycle) jointly. Hence, it signifies 35% of total variation in financial performance of SMEs in North Eastern Nigeria is caused by the collective effort of average receivables; average payables; average inventory turnover and cash conversion cycle). This further indicates that the model is fit, variables properly selected, combined and used in the study. This is statistically supported by the F-Sig (0.0000).

Average Receivables and Profitability
From table above (4.4), it is observed that the t-value for Average Receivable (ARD) is 5.97 and a coefficient value of 89.14817 with a significant value of 0.000. This signifies that average receivable is positively and significantly influencing Profitability of SMEs in North Eastern Nigeria. This implies that it is a day delay in account receivable will result in an 89.14 increase in profitability. In other words this result implies that any delay by the debtors to settle their liability of the goods they have taken on credit from the company will increase the Profitability of the SMEs. This is not surprising considering the fact that account receivables has to do with the debtors collection i.e. the ability of the firm to recover its debt from the debtors of the company. However, an increase on the average number of days accounts receivable by a firm to the debtors. May result to a problem because the inability of the debtor to settle their debt on time will constrained the firms in performing her operation as it affect firm liquidity. Thus, the finding of this study which shows that average receivables have a significant effect on the Profitability of SMEs in North Eastern Nigeria gives an evidence of rejecting the first ($H0_1$) null hypothesis of the study which states that, account receivables has no significant effect on the return on asset of SMEs in North Eastern Nigeria; thus; $H0_1$ is hereby rejected. This finding is consistent with the finding of (Marc Deloof, Ganze, Ahmet and Emin, 2012; Laura & Marius, 2014) and contrary to the finding of (Mathuya, 2013; Igbal & Zhuquan, 2014).

Account Payables and Profitability
The regression result reveals that the account payable days of SMEs in North Eastern Nigeria has a beta coefficient of -11.8755 with a t-value of -0.30, which was found to be insignificant at any level of significance. This implies that for SMEs in North Eastern Nigeria to have a unit increase in ROA, the APD must be decreased by 11.8755days. When a firm decides to delay settling its obligation to its suppliers, it will have a negative impact on its performance by decreasing the return on its asset. On the other hand, the result signifies that any single delay by a firm to settle its suppliers gives the firm an advantage of investing the amount into more profitable investments that may generate a good return on asset to the firm which will improve performance but this is not statistically significant. The result of the study shows that account payable days has an inverse (negative) relationship but not significant influence on the return on asset of SMEs in North Eastern Nigeria. Therefore, $H0_2$; which states that account payable has no significant impact on the return on asset of industrial goods firms is hereby not rejected. Thus; Ho_2 is hereby not rejected, several studies has suggested that relationships exist between payables and profitability of firms, hence the need to manage payables.

Average Inventory and Profitability
From table 4.4 the Inventory Turnover days have a significant positive impact on the profitability

of SMEs in North Eastern Nigeria at 1% level of significance which is in line with prior expectations and is also consistent with the study of (Abdul, Talat, Abdul and Mahmood, (2010). This is represented by a t-value of (-2.92) and a beta coefficient value of -297.0955 which has a significant probability value of 0.004. This result implies that for every 1% increase in the inventory turnover held by a firm in order to meet unexpected demand it will have a negative significant impact on the level of profitability of SMEs in North Eastern Nigeria. Better still, the result tends to imply that for the Industrial Goods Firms in Nigeria to have a unit increase on ROA, there must be a decrease of 297.0955 units of inventory, this has provided sufficient evidence for rejecting the third (H0₃) null hypothesis of the study which stated that; there is no significant relationship between average inventory turnover Days (ITO) and firm's profitability of SMEs in North Eastern Nigeria, thus H0₃ is hereby rejected. (Abdul, Talat, Abdul and Mahmood, (2010) and Ahmed, 2010).

Cash Conversion Cycle and Profitability

Also, looking at the relation between cash conversion cycle and the return on asset, a positive relation emerged and this has been supported statistically at 1% level of significance. This relation is evidenced by the coefficient value of 44.0434 and a t-value of 1.93. Here, it implies that to have a unit change in ROA, we need to have 44.0434 unit increase in the CCC. Therefore, the cash conversion cycle is relevant and play a significant role in improving the performance of industrial goods firms in Nigeria and this is in conformity with financing advantage theory where firms take advantage over traditional lenders (Joana, Vitorino & Moreira, 2011). The result of the cash conversion cycle gives evidence of rejecting the fourth null hypothesis H0₄ which says cash conversion cycle has no significant impact on the profitability of SMEs in North Eastern Nigeria. Thus; Ho₄ is hereby rejected.

Inflation and Profitability

Finally, looking at the relation between inflation and the return on asset, a positive relation emerged and this has been supported statistically at 1% level of significance. This relation is evidenced by the coefficient value of 240.866 and a t-value of 1.91. Here, it implies that to have a unit change in ROA, we need to have 240.866 unit decreases in inflation. Therefore, inflation is relevant and played a significant role in mediating the performance of SMEs in Nigeria and this is in conformity with financing advantage theory where firms take advantage over traditional lenders (Joana, Vitorino & Moreira, 2011). The result of the inflation gives evidence of rejecting the fifth null hypothesis H0₅ which says inflation has no significant impact on the profitability of SMEs in North Eastern Nigeria. Thus; Ho₅ is hereby rejected.

CONCLUSIONS

The study examines the mediating effect of inflation on the relationship between Working Capital Management and Profitability of SMEs in North Eastern Nigeria. Four independent objectives and four supporting hypotheses were stated and formulated respectively. The study covers a period of ten (10) years from 2013 to 2022 and total listed SMEs in North Eastern Nigeria data were used The study concludes that there is a significant relationship between

Profitability (ROA) and Working Capital Management in SMEs in North Eastern Nigeria as represented by Acc0unt Receivable Days (ARD), Account Payable Days (APD), Inventory Turnover Days (ITO) and Cash Conversion Circle (CCC). Though Inventory Turnover Days (ITO) were found to be Negatively Significant, Account Receivable Days and Cash Conversion Cycle were found to be Positively Significant. However, the same cannot be said of Accounts Payable for it was not significant at either 1%, 5% or 10% levels of Significance. The study recommend that account receivable days should be reduced to eight (8) days or maintained at the existing average of thirty one (31) days by the management of SMEs in North Eastern Nigeria in order to increase the profitability of SMEs. This is because reducing account receivables days may enhance firm profitability position (Deloof, 2003).

The management of SMEs in North Eastern Nigeria should increase the payable number of days to a maximum of fifty six (56) days or an average of twenty nine (29) days in order to payback for the goods or raw materials supplied to them by the suppliers for enhanced profitability position. Exceeding the maximum expected payable days will make the firm to loss its credit rating thereby losing its trade credit financing opportunities.

The management of SMEs in North Eastern Nigeria should not hold inventory for more than seventy four (74) days but can hold inventory for an average of eight (8) days. Stocks that are kept beyond 74 days have associated holding cost, carrying cost, pilferage exposure and obsolesce cost that tends to wipe out the expected profit position of the firm, thereby exposing the firm to the margin of negative performance instead of an expected positive return on assets (ROA). In addition, unnecessary inventory holding is known to tie down firm's working capital and therefore, affect the firm's day to day operations which may have a negative effect on the firm's profitability.

It is also recommended that the management of SMEs in North Eastern Nigeria should reduce the cash conversion cycle period by employing just-in-time (JIT) technique in order to avoid unnecessary holding cost and obsolesce and consequently increase the profit of the SMEs.

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