

# **EFFECTS OF WORKING CAPITAL MANAGEMENT ON PERFORMANCE OF SELECTED SMALL AND MEDIUM ENTERPRISES IN ADAMAWA STATE, NIGERIA**

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## **ABSTRACT**

This study examined the effect of working capital management on the performance of selected small and medium enterprises (SMEs) in Adamawa State, Nigeria. The study adopted descriptive research design which allowed the collection of primary data through structured questionnaires. The target population was 677 employees of selected SMEs in Yola North and Gerei LGA. Random sampling technique was used to obtain a sample of 245 employees. Data collected was analyzed using SPSS software. In order to examine the effect which Working Capital Management has on the Performance of the SMEs in the study area, multiple Regression were used. The results of the study indicated that two components of Working Capital Management (cash conversion cycle and inventory management) affect the performance of small and Medium Enterprises positively. The study concluded that managers of SMEs should adopt the correct working capital management practices and identifying critical areas that may improve the performance of SMEs. The study also recommends that SMEs should foster the cash conversion cycle, utilize the value of relationship with suppliers and develop strong alliance, introduce more and elaborate credit terms, Government at all levels to be more involved in financing small and medium enterprises and financial institution such as commercial banks should also be ready to provide loan facilities to SMEs with less stringent conditionality.

**Keywords:** Working Capital Management, SMEs, Performance

## **1.0 Introduction**

The fundamental feature in the management of daily running of business activities is working capital management. Working capital management is the process or strategy that influences the efficient management of current assets and current liability (Taurigana, 2013). The importance of working capital and the necessity for its efficient management can be understood by examining the resources and effort that financial managers dedicate to obtaining, controlling, and utilizing the different elements of working capital. Additionally, the ratio of current assets to total assets in companies, as well as the direct correlation between current assets and sales growth, further highlights the significance of working capital (Kemunto & Oluoch, 2019).

However, the management of working capital varies from one company to another and from one industry to another due to differences in their operations, regulations, and capital needs. While certain industries, such as retail businesses, require a long working capital cycle due to their operations, others, such as technology firms, have minimal need for working capital. Consequently, effective working capital management is crucial for a company's performance, particularly for industries that necessitate substantial initial investment, where the majority of assets are current assets (Iqbal, Manzoor, Akhtar & Amin, 2020). The Cash Conversion Cycle has been commonly utilized by various authors to assess the influence of working capital on firm performance (Baños-Caballero et al., 2012; Pham et al., 2020; Tahir et al., 2016). These authors have presented varying findings regarding the impact of working capital on firm performance. For example, Altaf (2020), Sharma et al. (2020), and Gill et al. (2010) observed a positive relationship between firm performance and working capital, while Akgün and Memiş Karataş (2020) and Fernández-López et al. (2020) reported a negative effect of working capital on firm performance. The recent health emergency and the consequent economic crisis have led to a further credit squeeze that has had and will have a strong impact on SMEs. This general situation has had and will have a negative influence on SMEs in all world economies. Still, it risks having even more severe effects in emerging countries, where economies are more unstable, and the financial system is mainly centred on banks (Das et al., 2000; Campos, 2014; Chalmers et al., 2020).

This situation requires SMEs to pay more attention to the financial dimension and, particularly, to manage working capital. That is why small and medium enterprise have been recognized in the Nigeria economic policies and programmed as the most popular business. This is especially in the area of income generation, poverty reduction and employment and with the fact that small amount is needed to start operation (Sunday, 2011). The reports further emphasized that, the major problem of SMEs growth or development facing in Adamawa state are lack of finance from external source, poor daily record keeping which lead to low performance, social amenities, poor management of finance which related to poor governance of working capital management which result to low growth, performance and failure of many SMEs (Okpara, 2009; Sunday, 2011; SMEDAN, 2012 and Ademola et al. 2013).

In Nigeria, relevant literature has shown that the studied have been carried out on working capital management. Takon (2015) examine the impact of working capital management on

firm profitability in Nigeria. The result shows negative relationship between factors of working capital management and performance. And most of business fail within few year of it operation and those who started stronger fail within 6year only few survive due to the difficulty in access to finance, poor daily record keeping, poor management of finance and lack of social amenities in particular working capital. Thus; base on the above studies review they all concentrated on manufacturing company which the result of the study show negative relationship to performance. Therefore, this study will focus on both trading and manufacturing small and medium enterprise in Yola North and Girei LGA Adamawa state which has a peculiar domain different from all the studies reviewed. The essence of this study was to establish how management of working capital influences and improved SMEs performance in Adamawa state with focus on CCC and Inventory management.

The main aim and objective of this study is to examine the effects of cash conversion cycle on the performance of Small and Medium Enterprises (SMEs) in Adamawa state and to determine the effects of inventory management on the performance of Small and Medium Enterprises (SMEs) in Adamawa state.

## **2.0 Literature Review**

Working capital management is a managerial accounting strategy that focuses on maintaining optimal levels of current assets and current liabilities in relation to each other. Financial managers are often challenged with finding the best approach to ensure the business's survival and expansion in terms of working capital management. A company should strive to maintain a healthy working capital position, with sufficient funds to support its operations. It's important to note that both excessive and inadequate working capital can pose risks to a business, so finding a balance between liquidity and productivity is essential for effective day-to-day operations. Working Capital are those funds that are necessary required for daily running of business activities. Nyeadi et al. ( 2018) contended that working capital lacks clear theoretical frameworks to explain its management, suggesting that its relationship can be better understood within the context of the theoretical foundations of capital structure.

Winasis, et al. (2020) described working capital management as an accounting strategy focused on maintaining efficient levels of current assets and current liabilities in relation to each other. According to Wang, et al. (2020), working capital management involves

determining the levels and compositions of current assets, ensuring appropriate financing sources for current assets, and timely payment of current liabilities. Eljelly (2004) stated that working capital management encompasses making suitable investments in cash, marketable securities, inventories, and receivables, as well as managing the level and mix of short-term financing. Doan (2020) clarified that working capital management involves short-term decisions typically related to the next one-year period, which can be reversed. Waema and Nasieku (2016) explained that working capital management aims to maintain an optimal balance of each working capital component, ensuring that firms operate with sufficient funds to service their long-term debt and meet both maturing short-term obligations and upcoming operational expenses. According to Ishmael, et al. (2017), working capital management includes both establishing working capital policy and implementing that policy in the day-to-day operations of the firm. Erik (2012) says that, firms can reduce their net working capital by limiting the time collecting receivables, delaying payment and keeping minimum inventory. Working capital as well consists of how firms invest their cash in business to withstand liquidity.

## **2.1 Working Capital Management Components**

The following concepts are the component of working capital management.

**Cash conversion cycle:** Cash Conversion Cycle can be said to mean the number of days it takes a firm to pay its debts and receive payment from its debtors. It is the transfer of funds to and from via financial institution to ensure maximum utilization of cash. Numerous research studies have examined the connection between working capital management (WCM) and profitability. These studies consistently show a negative correlation between the cash conversion cycle and profitability. In other words, reducing the corporate CCC is associated with a positive impact on profitability (Arnaldi et al., 2021; Bieniasz and Golaś, 2011; Enow and Brijlal, 2014; Enqvist et al., 2014; Muhammad Usman and Khan, 2017).

**Inventory:** Inventory is used to describe raw materials used to produce goods for sale and the goods available for sale. It is seen as the most important assets of a business seeing that the sales of inventory are the basic revenue generation asset and eventually shareholders earning. Inventory comprises of unprocessed materials, material under process, goods ready for sales extra materials and materials for use in production process of goods and services which will be sold in the normal course of business. Inventory system is the set of rules that

controls the level of stock and determines what quantity of stock should be held, when inventory should be purchased and the quantity of orders to be ordered. Stock includes large classes of materials which are to be purchased used up and sold in the normal day to day business. Some studies have shown a negative relationship between INV and a firm's profitability (Arnaldi et al., 2021; Aytac et al., 2020; Högerle et al., 2020).

### **Concept of Small and Medium Enterprise**

The idea of small and medium enterprises (SMEs) was too brought to recognition as early as the late 1940s and the main objective was to enhance trade and improve industries in today's developing countries (OECD 2004). As part of Nigeria's economic reform in recent times, a switch has been made from stressing on grandiose capital intensive large-scale industrial project to small and medium enterprises with great hope for growing home based abilities for fast tangible development of industries (Dasanayaka, 2009). Recognizing the operational capacity and nature of small and medium enterprises is necessary. Notable of the indices are independent management (free from any other party with the exemption of the owners) occupied mostly by the sole proprietorships, partnerships and private limited company. In Nigeria sole proprietorship is preserved as a result of trust problems. Small medium enterprises are mostly sited in the countries hinterlands. Administrative flexibility is one of the major characteristics of small and medium enterprise.

The descriptions of small and medium enterprises are mostly made in each nation depending on the part played by small and medium enterprises in the nation's economy. The description of small and medium enterprises in however defers with time from ageneres or growing institutions or to another pending on the focus of their regulations. Generally speaking, there is no consensus on the definition or nature of SMEs worldwide. In this context, Abera (2012) notes that this is because of the variance in the criteria of categorizing affirm as a SME among different institutions and country depending on the country's level of development. The mentioned differences however allows small and medium enterprises to be described in a particular benchmark involving turnover and number of staff employed, profit, capital employed, funds available, market share and relative size within the sector.

### 2.3 Empirical Review

Also, Doan (2020) analyzed the impacts of working capital management on the profitability of fisheries enterprises in Vietnam. Using the Generalized Method of Moment (GMM), “the study data was collected from 20 fishery enterprises listed on Vietnam's stock market, for the period of 2010-2018. The study results showed that the profitability (ROA) of the enterprises is negatively affected by accounts receivable period (AR), inventory period (INV), accounts payable period (AP) and cash conversion cycle (CCC).

Agegneu (2019) examined the effect of working capital management on profitability. The study sampled 5 companies for the period of seven years (2009-2015). “The researcher found that there is a significant negative relationship between liquidity and profitability. However, the research design was not stated and the study also covers the period of seven years from 2009-2015 which is far from the time the paper was published, the researcher should have extended the work to cover 2017 or 2018.

Iqbal, et al. (2020) assessed the effect of cash conversion cycle on profitability of the firm. Three components are used to measure cash conversion cycle (CCC); average receivable period (ARP), average inventory period (AIP) and average payable period (APP). Henceforth, cash conversion cycle and its determinants are taken as independent variables. The data was collected with the help of pooled data containing a sample of 10 firms of two manufacturing sector such as Oil & Gas and Engineering, listed on PSX. In the end, there exists a highly negative significant association among CCC and firm's profitability as ROA.

Wang, et al. (2020) examined the impact of working capital management (WCM) and working capital strategy (WCS) on firm's financial performance across different stages of the corporate life cycle (CLC). They studied Pakistani non-financial listed firms nested in 12 diverse industries over a period of 2005–2014. The findings revealed that WCM is negatively associated with firm performance”.

Adina (2019) states in his paper working capital management and productivity: A case of Alba county companies that the purpose of his study was to analyze the efficiency of working capital management from Alba County. He examined the relationship between the efficiency of the working capital management and productivity using person correlation analyses and using a sample of 20 annual financial statement of companies covering period 2004 – 2008.

He concluded that there was a weak negative linear correlation between working capital management indicator and productivity rates.

Karaduman, et al (2018), examines the empirical relationship between efficiency of working capital management and corporate productivity of selected companies in the Istanbul stock exchange for the period of 2005 – 2009. The panel data methods were employed in order to analyze the mentioned relationship. The cash conversion cycle (CCC) was used as a measure of working capital management efficiency, and return on assets (ROA) used as a measure of productivity. He found out that reducing cash conversion cycle (CCC) positively affects return on assets.

Charitou, et al (2019) in their study empirically investigate the effect of working capital management on firm's financial performance in an emerging market. They hypothesized that working capital management leads to improved productivity. Their data set consists of firms listed in the Cyprus Stock exchange for the Period 1998-2007. Using multivariate regression analysis, their results supported their hypotheses. Specifically, their results indicated that the cash conversion cycle and all its major components namely, days in inventory, days in sales outstanding and creditor's payment-period were associated with the firms' productivity. They opined that the results of this study should be of great importance to managers and major stakeholders, such as investors, creditors and financial analysts, especially after the recent global financial crisis and the latest collapse of giant organizations worldwide.

Daniya, Alhaji Baba and Ruth (2018) the study examine Working Capital Management and Financial Performance of Listed Conglomerate Companies in Nigeria. The study cover the period of 10 year from 2005-2014. The study employed descriptive statistics to describe the variable while the relationships among the variables were established via correlation. Ordinary Least Square (OLS) Regression was used to analyze the data. The study found that debtor's collection period, creditor's payment period and firm size were negatively related to return on investment while cash conversion cycle has insignificant relationship with the financial performance. The study recommends that conglomerate companies should maintain the current debtors' collection period or further reduce it in order to continue to enhance financial performance.

Raji (2017) this study examined the impact of working capital management on small and medium enterprises' performance in Nigeria. The study analyzes 28 SMEs firms in Osun

State for the sample period from 2010-2014, regression analysis was used. The finding indicates that ARP and ITID have a negative effect on performance while positive relationship is found in APP, CCC and NTC to performance. The study recommends that Management of small and medium enterprises should ensure delay in payment of goods or services or to the creditors because it tends to improve the performance of the firm.

Gorondutse, Abubakar and Naalah (2017) in their study the examined effects of working capital management on SMEs profitability in Malaysian. The study analyzes 66 SMEs in Malaysia for the period of 2006-2012. Secondary data were drowned from Malaysia Companies Commission; regressions were use in the analysis. The results of this study show that there is a negative relationship between working capital management component (DAR, ITID, and CCC) and SMEs profitability measures (ROA and ROE). The result also, revealed that a positive effect of NOP on CCC. Furthermore, the findings show positive relationship between DAP and SMEs productivity (ROA and ROE) but having a negative relation with NOP. The study recommend that managers SMEs can improve the profitability of their firms by reducing their CCC which is the components of DAR, ITID and DAP to a reasonable minimum.

Lazarus (2017) this research work examined the influence of working capital management on the performance of SMEs in Ghana. Secondary data were drowned to annual financial statements from 2011 to 2015. Sampling technique was used to select four hundred (400) SMEs, they use ordinary least square regression model for the study. The finding of the study found that cash conversion period, account receivable days and inventory turnover days were significantly and negatively related to performance. These results are associated with the number of days it takes to realize cash flows from input resources. On the other hand, an account payable day was ascertained to have a positive relation with performance. The study recommends that the SMEs must consider negotiating for a favorable terms of payments with their suppliers and also should consider a reduction in the cash conversion period, average account receivable days and average inventory turnover days.

Yakubu (2017) this study examines the impact of working capital management on the performance of non-financial firms in Ghana. Using secondary data of five listed non-financial firms for the period 2010-2015, the Random effect model was employed to establish the relationship that exists between the various components of working capital management and firm performance and whether these WCM components impact significantly on firm



performance. The results show that average payment period and current ratio have a positive relationship with firm performance. Average collection period, inventory turnover, cash conversion cycle, and firm size on the other hand have a negative relationship with firm performance. However, only average collection period, average payment period, cash conversion cycle, and current ratio are found to have a significant impact on firm performance. The study recommends that managers of non-financial firms in Ghana should formulate sound working capital management policies that will enable firms to deal with liquidity challenges and enhance their performance.

Isaac, Kariuki and Kimani (2017) determined the effect of working capital management practices on the financial performance of the tea processing firms in Kenya. A sample of 48 tea processing firms was used in the study out of 54 tea processing firms in Kenya. Primary data was collected by use of a questionnaire whereas the secondary data was collected by use of a record survey sheet. Pretesting was done to determine the reliability and validity of the questionnaire. The study found that tea processing firms have established an inventory and payment management policies to guide the firms in managing their inventory. The Pearson correlation and ANOVA results showed that inventory management has a negative significant relationship with the financial performance of tea processing firms. Recommendation of this study suggested that tea processing firms to ensure the total numbers of days taken before inventories are sold is minimized in order to boost the returns of the firms.

## **2.4 Theoretical Framework**

### **2.4.1 Contingency Theory**

The contingency theory was propounded by Saxberg in the year (1979). Contingency theory of working capital management states that the efficiency of working capital is at the peak when the structures match the contingencies, therefore only those organizations that align their working capital with the current business environment achieve highest output. The theory therefore advocates that in determining the level/approach of working capital management to approach, firms must put into consideration the strategically significant external factors of the business environment such as include economic conditions, demographic trends, socio cultural trends political/legal factors and industry structure. The theory further notes that there is no level of working capital and is said to be constantly

optimal in any particular industry. Rather, given that external factors may change rapidly, managers must constantly adopt their organizations levels and approaches of working capital management to the new situation to ensure effectiveness. The theory therefore implicitly treats organizations as loosely coupled aggregates whose separate working capital components might be adjusted or fine-tuned to suit the environment.

### **3.0 Research Methodology**

The study adopted the descriptive research design that enables researchers to examine the relationships among number of variables. The choice of this descriptive research method is informed by the fact that SMEs are in different locations in the study area. Primary data was collected to facilitate the realization of the study objectives. The instrument for the study is a structured questionnaire and the survey approach was used. The internal reliability test result for each dimension of working capital management variables are 0.638 for Cash conversion cycle, and 0.726 for Inventory management while the reliability test result for Performance is 0.689. The data collected were analyzed using multiple regressions was used to determine the influence of the independent variables on the dependent variable and to measure the discrepancy that exists between observed and expected frequencies as stated in null hypothesis.

#### **Model specification**

The Regression model was employed to measure the influence of individual component (Conversion Cycle and Inventory management on performance of SMEs. The regression equation is specified as follows;

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \dots + u$$

Where: Y = Dependent variable (performance);  $\alpha$  = Constant;

$\beta_1$  to  $\beta_2$  = represent the model coefficients and  $x_1$  to  $x_2$  = represent Independent variable

Therefore;

$$Y = \text{ROA}$$

$x_1$  = Cash conversion cycle;  $x_2$  = Inventory;  $u$  = error term

## 4.0 RESULTS AND DISCUSSION

### Results of Regression Analysis and Assumption

Multiple regression analysis was used in order to examine the effects of working capital management on performance of selected small and medium enterprise in Adamawa State. Therefore, to know the effects of working capital management on performance of SMEs, multiple regressions using the following model was run:  $\text{Performance} = a + \beta_1 (\text{Cash conversion cycle}) + \beta_2 (\text{Inventory}) + e$ . The following tables show the result revealed from the regressions analysis.

Table 1: Model Summary

Model	R	R square (R <sup>2</sup> )	Adjusted R <sup>2</sup>	Std. error of the estimate	Durbin watson
	0.818	0.669	0.663	1.036	1.679

- a. Predictors: (constant), Cash Control and Inventory  
b. dependent variable: Performance

Source: Field Survey, 2018

Table 1 above represents the multiple regressions model summary. The analysis revealed that R value (0.818) for the overall working capital management, such as cash conversion cycle and inventory, suggested that there is significant influence of these independent variables on performance. It also observed that coefficients of determination i.e the R-square (R<sup>2</sup>) value is 0.669 which represents 66.9% and adjusted R-square (R<sup>2</sup>) is 0.663 which also represent 66.3% variable of the dependent variable (performance) as a result of independent variables (working capital management), which in fact, is a strong explanatory power of regression.

To get an ideal how much tolerance value or variable inflation factor (VIF), Eigen value, and condition number. The VIF acceptance range is between 1 and 10 in this study, the VIF in Table 2 below is 1.121, and 1.360, for Cash conversion cycle (CCC) and Inventory (INV). This shows that the regression was not violated and there is no problem of multicollinearity. The rule of thumb for a large VIF value is ten (10) (Keith, 2006; Shieh, 2010).

Table 2: Coefficients

Model	Collinearity statistics	
	Tolerance	VIF
Constant		
CCC	0.892	1.121
INV	0.736	1.360

a. Dependent variable: Performance

Note: CCC= Cash conversion cycle, INV= Inventory

#### 4.1 Findings of the Study

- i. The finding revealed that cash conversion cycle has significant effect on the performance of small and medium enterprises.
- ii. The finding revealed that inventory has significant effect on the performance of small and medium enterprises

#### 4.2 Discussion of Findings

The study examined the effect of working capital management on the performance of small and medium enterprise and multiple regression was used to analyze the data collected and the results revealed that working capital management factors such as cash conversion cycle, and Inventory, have strong effect on the performance of small and medium enterprise; since the results' significance level of the factors are less than 0.05 ( $p < 0.05$ ).

The findings are consistent with previous studies on related issues (Karaduman, et al 2018, Charitou, et al (2019), Ahmed, Shoukat and Nadeem, (2014); Timothy Kosgey and Njiru, (2016); Twahirwa Egide,(2016). However, the findings of the study differ from the study of The result of no significant effect of cash conversion cycle and innovatory management shows consistency with the works of Nyangweso and Wepukhulu (2020), Moshin, et al. (2019), Wang, et al. (2020) and Agegneu (2019).). The hypothesis was predicted that those factors or component have no significant effect on performance of small and medium enterprise, but when the data was analyzed using multiple regressions it revealed that the variables have significant effect on the performance of small and medium enterprise since both variables contributed positively and the significant value of coefficient is less than 0.05.

## 5.0 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusion

From the analyses carried out, it can be factually concluded that there are strong linear relationship between Working Capital Management which comprises the management of cash and inventory is pivotal in the growth and sustenance of business enterprises and hence the need for firms to have efficient and effective system of managing these components of the working capital.

### 5.2 Recommendations

The study recommend that there should be faster and monitoring of disbursement of cash to buy raw material to be conversion to work in progress (WIP) and finished good and then sell the finishing good to SMEs . This can increase the market value of the business and improved their performance. The study was also restricted to the SMEs sector in Adamawa state. This can cause limitations in regards to the generalization of results to the Adamawa state economy. In this regard, further studies can be performed on other sectors of the economy such as services sector and non-profit making organization which may result in different findings. There is need for other researchers to widen the study by including collecting secondary data covering a wider period of time, for instance 10 years. Compared to the four years used for this study. This study used return on asset as measure for performance. Therefore, there is need for the further study to look at the other measures of performance such as return on investment, return on equity and ROCE etc. also to consider variables such as work in progress, prepayments and accruals as the component of working capital management.

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