

## Working Capital Management And Organizational Performance

**Abraham Irekponor, PhD & Ekong Godwin Elijah**

Department of Accountancy

School of Financial Studies

Captain ElechiAmadi Polytechnic Rumuola, Port Harcourt

### **Abstract**

*The study x-rays the effect of working capital management on organizational performance. The independent variable (working capital management) was measured with inventory, receivable and payable, while the dependent variable (performance) was measured with net asset. The data was analyzed with multiple regression (ordinary least square) and the t-statistics was used to test the significance level of the relationship between the dependent and independent variable. The result shows that there is a significant relationship between inventory and net asset with a t-statistical value of 4.374 and a probability of 0.003 which is less than the pre-set significant level of 0.05. The result also shows that there is a significant relationship between trade receivable and net asset of Dangote Cement Plc with t-statistical value of 1.166 and a probability of 0.285 which is more than 0.05. For the effect of payable on net asset, the result shows that t-statistical value is 0.799 with a probability of less than 5%. In cases of hypothesis I and III, we accept the alternative hypothesis and reject the null hypothesis. In hypothesis II, we accepted the null hypothesis. In conclusion, working capital management have effect on net asset. It was recommended that to ensure availability of material, adequate provision of supplies should be made to forestall production stoppages; a level of trade receivable should be maintain and a strict terms of trade should be put in place.*

## Introduction

The ability of a company entity to use its current or short-term assets to satisfy its short-term liabilities is one of several elements that influence its growth. (Harries, 2015). Working capital management aims to maximize liquidity, profitability, and shareholder value. Value (Makori&Jagongo, 2016). Niresh (2018) opine that Working capital management is a critical factor in determining an organization's financial performance. He concluded that it is a concept that ensures a company's ability to fund the gap between short-term assets and short-term liabilities. Working capital refers to management of current assets and current liabilities. Horne and Wachowite, (2020) asserts that working capital management is crucial in manufacturing firm since part of their major assets is composed of current assets, as directly affect the profitability and liquidity of firm (Raheman& Nasr, 2017). Improper management of working capital components, such as accounts receivables, payables, and inventory, will cause challenges in the firm's continuous operation, as well as damage the firm's market value. (Ogundipe, Idowu&Ogundipe, 2015).

Makori and Jagongo (2016) stated that working capital is regarded as the result of the time lag between the expenditure for the purchases of raw material and the collection for the sale of the finished goods. And its management can have a significant effect on both liquidity and profitability of the company asserts that liquidity is the ease with which a company can turn its current assets into cash. Liquidity is an offshoot of working capital because cash is a component of current assets. Horne (2020) opined that linear relationship subsists between liquidity and profitability in line with the performance of the firm especially when the manufacturing outfit has to make frequent and timely disbursement to the various stakeholders.

Working capital management has an impact on a company's financial success, particularly in manufacturing. This is because working capital reveals a company's strength and degree of solvency. The ratio indicates how quickly a creditor's claim can be satisfied. A low ratio means that too much money is invested in equities. Free cash flow is a key influence of shareholders value hence, companies particularly in the current difficult economic times are targeting working capital in order to lock cash invested in the business and invest in areas of higher value added returns (Mukhopadhyay, 2014). In as much as profit maximization is the aim of every business, maintaining liquidity of the firm also is crucial. Increasing profit at the cost of liquidity can bring serious problems to firm, hence, a firm must adopt a strategy where a balance will be maintained between these two objectives, and this is of course a challenge in working capital management (Smith, Reheman& Nasr, 2017). Working capital management is one of the most important areas while making liquidity and profitability comparisons among firms (ELjelly, 2014). The theory of risks and return has it that investment with more risk will result to more return. Hence firms with high liquidity of working capital may have low risks and low profitability. Conversely a firm that has low liquidity of working capital faces high risk which results to high profitability. In Nigeria organization play a significant role in the economy as it

employs not less than 80% of the labor force of the country and as such whatever affects the manufacturing companies automatically affects the economy.

### **Statement of the Problem**

Working capital is defined as the capital available for running an organization's day-to-day activities, as reflected by its net current assets. (Adeniji, 2018). Working capital management has an impact on an organization's financial performance. This is because working capital reveals a company's strength and degree of solvency. Daniel and Ambrose (2013) studied working capital management and firm profitability. Empirical Evidence from manufacturing and construction firms listed on Nairobi securities Exchange, Kenya. The challenge of the study was to find out the relationship between working capital management and profitability. The study employed a balanced panel data of five manufacturing and construction firms. Ogundipe, Idowu and Ogundipe (2015) studied working capital management, and firms' performance in Nigeria. The focus of this study was to examine the impact of working capital management on firms' performance in Nigeria. A sample of fifty-four non-financial quoted firms in Nigeria listed on the Nigeria stock exchange was selected for the period 1995 – 2009. Raheman, Afza, Qayyum and Bodla (2020) investigated working capital management and corporate performance of manufacturing sector in Pakistan. The major challenge was to evaluate the relationship between working capital management and profitability of manufacturing companies in Pakistan. The study covered the period 1998 – 2007. In 2017, Mathura investigated the influence of working capital management on corporate profitability. The problem of the study was to find if cash collection period influences firm profitability. The study covered 30 firms listed in Nairobi Stock Exchange for the period 1993 – 2008. The tool for analysis was partitowls and the fixed effects regression model. The findings revealed that a highly significant negative relationship exist between the time it takes for firms to collect cash from their customers and profitability. Chetha (2019) identifies some of the problems of working capital as poor sales performance, past due receivables, poor quality delivery, poor inventory management and delay in payment of vendors. This is the gap knowledge this study tends to fill. None of the study above used receivable, payable and inventory separately to measure working capital. The study also used Net Asset to measure corporate performance which was not used in other studies. This period for this study was also extended to 2020.

### **Objectives of the Study**

The main objective of this study is to examine working capital management and organizational performance of Dangote Cement Plc. Other specific objectives include

1. To determine the effect of inventory on the net asset of Dangote Cement Plc.
2. To determine the effect of receivables on net asset share of Dangote Cement Plc.
3. To determine the effect of payables on the net asset of Dangote Cement Plc.

### **Literature review**

#### **Working capital and firm's profitability**

Grablowsky (2015); There is a close link between the use of formal working policies and procedures and a firm's success variables (profitability). Working capital management

practices that are effective not only protect businesses from financial turmoil, but they may also be used to gain a competitive advantage over competitors. He did this by analyzing the firm's data using financial ratios (Quick Ratio, Current Ratio, and Gross Profit Ratio).

Lyroutdi and Lazaridis (2019) have conducted a study on the ground of Greek food and beverages industry, and find the positive relationship which exists between the Cash Conversion Cycle and profitability. Annand and Gupta's (2015); Deloof (2018) and Nerware (2020) empirical survey of working capital performance helps to identify the core determinants of WCM. He argues that the cash conversion efficiency, days of working capital, and days of operating cycle are the key variables of WCM. Rehman (2016).

### **Management policies**

This field researches started with William Baumol (2019) who stated that cash stock is like as inventory of goods and put it first by linking inventory theory with monetary theory which encourage other researcher to do further research in the area of cash and inventory management models has worked on the problems of WCM in which he identified four areas; cash, inventory, receivables and working finance. Jain and Yadav (2020) had studied different management policies related to current assets management (account receivables and payables).

### **Inventory management policies**

The major component of WCM is the inventory management (Talekar 2015). With keeping in mind the changes in demands, production requirement and scarcity of resources, the management has to maintain the optimal level of inventory. Arroee, Harry (2019) explored that firms have to develop different policies to formulate different techniques for managing inventory like as ABC inventory system, Two-bin method, and Economic Order Quantity (EOQ) model Just in Time (JIT) system. According to the Blackstone (2015), the best approach to manage the optimal level of inventory is EOQ.

### **Trade receivables policies**

Numerous empirical studies have addressed the trade receivables in which its managerial policies have discussed. This term was firstly cited by Petersen Rajan (2017) who explores its different determinants. Mian and Smith (2018) had worked on to find out the bases on which firms manage its trade credits (receivables). Recently Molina and Preve (2019) explored the effects of financial distress on investment in trade receivables. In that study they find out that when the firms have high investment in clients then firm has to face the cash flow problems. According to Lawrence J. Gitman in his book Principles of Managerial Finance (11 ed.) to speed up collections from clients the firms have to pay attention on the Credit Selection and Standards (Minimum requirement of firm to extend credit), Credit Scoring (Scoring process of customer financial position), Credit Terms (Terms for sales on credit) and Credit Monitoring (An on-going review of receivables). The 200 large corporations showed that by extending trade credit on more favorable conditions may extend the sales had conducted a study on to find out the trade credit limit policies in 500 fortune firms.

**Trade payables policies**

The vital component of WCM is the current liabilities identified firstly by Jain and Kumar (2019) in India and South East Asia. Current liabilities are the short term liabilities which consist of loans, advances and account payables. According to Molina Preve (2019) had studied 100 fortune firms of Malaysia in which he explored the fact that to found CCC firms have to need of operating cycle and account payables. According to Lawrence J. Gitman for managing the account payables the firm has to studied about the Credit Terms ( terms to buyat credit), Cash Discount Decisions ( taking and giving up discount) And Credit Period ( timeto pay credit).

**Cash conversion cycle**

Lazaridis and Tryfonidis (2016) investigated the relationship that is significant between corporate profitability, the cash conversion cycle and its components by using the sample of 131 companies listed in the Nigeria Stock Exchange for the period of 2001-2004. They used the following independent variables, fixed financial assets, the natural logarithm of sales, financial debt ratio, cash conversion cycle and its components – day's inventory, days receivable and days payable. The dependent variable was profitability measured by gross operating profit. This research finding shows a negative relationship between these variable. The author concludes that companies can create more profit by handling correctly the cash conversion cycle and keeping each different component to an optimum level. Shahid (2015) explore the effect of working capital management and profitability of textile sector of Pakistani 160 firms for the period of 6 years from 2000-2006. He used the following model for this purpose of ordinary last squares model and fixed affect model and conclude that higher the cash conversion cycle higher the profit and through regression analysis he also concluded that average payable and average receivable have significant economic impact on ROA (return on assets).  $CCC = ACP + AAI - APP$

**Relationship with net asset and working capital**

This is the value of total Asset (Non- Current Asset and Current Asset) less the total liability of the business. This is the shareholders fund in a business. Increase in net Asset is a sign of performance, because revenue reserve is a part of Net Asset. Good Management of working capital has a direct relationship with profitability and profitability of a firm has direct relationship with revenue reserve which is a part of Net Asset.

**Theoretical framework****Operating cycle theory**

As one of the theories of working capital management, the operating cycle considers the receivables and inventories relating to working capital and usually, it commences with receipts of raw- materials to collection of receivables from debtors of the stock sales produced from those materials. This theory suggest that granting more credit terms to customer will lead to higher tendency of having a bigger but less liquid investment in cycle ( inventory turnover).

**Resource based theory**

This theory is of the opinion that survival and growth of a firm depends on either the human or material resources of the firm. Resources means the inputs that are pushed into production process and are considered as fundamental unit of analysis and such include brand name, human skill, capital equipment, patent, finance etc.

**Static trade off theory**

Recent capital structural approach is well explained by Myers (2018) and he split his theory in to two theories: Static Trade off Theory (STT) and Pecking Order Theory (POT). Under STT firms only follow debt to equity ratio for decisions and also perform accordingly. The benefits and costs of debt make the ratio which consists of taxes (positive correlation b/w taxes and leverages) and financial distress cost (if loans exceed from certain limit, bankruptcy problem arise). According to this theory, for the well management of debt – equity ratio, firms must have to concentrate on WCM.

**Empirical review**

Daniel and Ambrose (2013) studied working capital management and firm profitability. Empirical Evidence from manufacturing and construction firms listed on Nairobi securities Exchange, Kenya. The challenge of the study was to find out the relationship between working capital management and profitability. The study employed a balanced panel data of five manufacturing and construction firms each which are listed on the Nairobi securities exchange (NSE). Pearson's correlation and ordinary least squares regression models were used. The study covers a period of 10 years that is 2012 – 2022. The study find out that a negative relationship exist between profitability and number of days accounts receivable and cash conversion cycle, but a positive relationship between profitability and number of days of inventory and number of days payable. According to the study, financial leverage, sales growth, current ratio and firm size have significant effect on the firm's profitability. The researchers concluded that firms can create value for their shareholders by reducing the number of day's account receivable and by increasing their inventories to a reasonable level. Niresh (2018) carried out a study on working capital management and financial performance of manufacturing sectors in Sri Lanka. The major purpose was to investigate the relationship between working capital management and financial performance of listed manufacturing firms in Sri Linka. The study covered a six years period of 2008 – 2011. Return on assets and return on equity were used as performance measures whereas cash conversion cycle, current assets to total asset and current liabilities to total assets were used as working capital management measures. The study employed correlation and regression analysis models for analysis and the result of the analysis revealed that there is no significant relationship between cash conversion cycle and performance measures and hence the study concludes that, manufacturing firms in Sri Link follow conservative working capital management policy.

Ogundipe, Idowu and Ogundipe (2015) studied working capital management, and firms' performance in Nigeria. The focus of this study was to examine the impact of working capital management on firms' performance in Nigeria.

A sample of fifty-four non-financial quoted firms in Nigeria listed on the Nigeria stock exchange was selected for the period 1995 – 2009. The data for the study was sourced from annual reports of the sample firm for the period under review. Regression model was used for analysis and the result of the analysis revealed that significant negative relationship exist between cash conversion cycle and market valuation and firms' performance in Nigeria. The findings also confirmed that there is a significant relationship between market valuations; profitability and working capital component the study recommend that Nigeria firms should ensure adequate management of working capital especially cash conversion cycle components of account receivables, account payables and inventories, as efficiency working capital management is expected to contribute positively to firms' market value. Raheman, Afza, Qayyum and Bodla (2020) investigated working capital management and corporate performance of manufacturing sector in Pakistan. The major challenge was to evaluate the relationship between working capital management and profitability of manufacturing companies in Pakistan. The study covered the period 1998 – 2007. Balanced panel data of 2014 manufacturing firms was used which are listed in Karachi stock exchange firms. The result indicated that cash conversion cycle, net trade cycle and inventory turnover in days are significantly affecting the performance of the firms. Financial leverage, sales growth and firm size also have significant effect on the firm's profitability. The study concluded that firms in Pakistan are following conservative working capital management policy and the firms are needed to concentrate and improve on their collection and payment policy. The study recommended that specialized persons in finance should be hired by the firms for expert advices on working capital management especially in the manufacturing sector in Pakistan.

In 2017, Mathura investigated the influence of working capital management on corporate profitability. The problem of the study was to find if cash collection period influences firm profitability. The study covered 30 firms listed in Nairobi Stock Exchange for the period 1993 – 2008. The tool for analysis was partwises and the fixed effects regression model. The findings revealed that a highly significant negative relationship exist between the time it takes for firms to collect cash from their customers and profitability. According to him, more profitable firms take the shortest time for cash collection but positive significant relationship exists between inventory conversion period and profitability. The study concludes that the longer a firm takes to pay its creditors, the more profitable it is for them. Gill, Biger and Mathur (2020) carried out a study on the relationship between capital management and profitability. The study covered 88 American first listed on New York stock exchange for a period 2005 – 2007. The tool for analysis was Pearson Bivariate correlation analysis and weighted least squares (WLS) regression model. The focus was to find out the relationship between working capital management and profitability. The study found that there exist a significant relationship between the cash conversion cycle and profitability measured through gross operating profit.

## **Research methodology**

### **Research design**

According to Green and Tull (2013) research design is the specification of techniques and processes for obtaining the information required.

It is the overall operational pattern to framework of the project which states what data to be gathered from which source by what process the study applied the Ex Post Facto design which is considered appropriate for studies where the data are basically historical and study subjects or data are not subject to manipulation from the researcher

### Population of the study

The data for this study were collected from the annual report of Dangote Cement Plc. The secondary data used covered a period of 10 years i.e. 2010-2020 gotten from the annual report of Dangote Cement Plc.

### Sample size/sample techniques

Study population is a subset of the target population from which the sample is selected (Alex C. Michalos, 2014). Sampling Technique is a method that allows researcher to infer information about a population based on results from a subset of the population, without having to investigate every individual. The Population of the study comprises of data sourced from the annual report of Dangote Cement Plc. Which covers a period of 10 years which from 2010 to 2020

### Validity and reliability

Reliability and validity are concepts used to evaluate the quality of research. They indicate how well a method, technique or test measures something. Reliability is about the consistency of a measure, and validity is about the accuracy of a measure. Fiona Middleton. (2020). In this study it is to test the secondary data collected from the annual report of Dangote Cement Plc. Throughout this period of the study the datasets was saliently and constructively checked and retested to eradicate errors and data truncation.

### Method of data analysis

The Multiple regression analysis, using ordinary least square in showing the significant relationship between variables under the study also the t distribution test otherwise known as (t-test) analysis was used to test the stated hypothesis as it is an improvement of the classical ordinary least square techniques (OLS) or regression techniques using SPSS Package.

### Model specification

For the purpose of this study the equation shown below was formulated

$$NAS = F(INT+PY+RC) \dots\dots\dots (i)$$

The above equation was transformed into econometric form as follows

$$NAS = b_0 + b_1 INT + b_2 PY + b_3 RC + e \dots\dots\dots (iii)$$

$$NAS = b_0 + b_1 INT + b_2 PY + b_3 RC + e \dots\dots\dots (iv)$$

Where

NAS =Net Asset

INT = Inventory

PY =Payables

RC =Receivables

$b_0$  =Constants



$b_1$ - $b_3$ =Slop Coefficient

e =error term

### Data presentation

The data used for the study is presented below:

**Table 1: Inventory value, trade receivables, trade payables and net assets**

YEARS	Inventory Value	Trade Receivables	Trade Payables	Net Assets
2010	14404.00	1874.00	11378.00	211509.00
2011	14577.00	34626.00	12860.00	297054.00
2012	30854.00	24279.00	4991.00	624000.00
2013	23577.00	34552.00	4121.00	820478.00
2014	36315.00	56757.00	8463.00	638543.00
2015	38639.00	52003.00	4252.00	748479.00
2016	55850.00	60384.00	11857.00	981367.00
2017	62259.00	11046.00	12340.00	991017.00
2018	58820.00	25258.00	24859.00	1294000.00
2019	67736.00	14829.00	12700.00	1282000.00
2020	54545.00	40506.00	27288.00	1352000.00

**Source:** Annual report of Dangote cement Plc. (Various Issues)

### Data Analysis

#### Descriptive Statistics

In order to have a simple appreciation of the employed data especially with regard to their trends, mean, deviations, and other features, the descriptive analysis is considered.

**Table 2: Descriptive statistics of inventory (INV), trade receivables (REC), trade payables (PAY), and net assets (NAS) for the period 2010 to 2020.**

	N	Minimum	Maximum	Mean	Std. Deviation
INV	11	14577.00	67736.00	42052.3636	18640.56457
REC	11	4121.00	27288.00	12282.6364	7640.00809
PAY	11	1874.00	60384.00	32374.0000	19103.56022
NAS	11	211509.00	1352000.00	840040.6364	386290.58565
Valid (listwise)	N 11				

**Source:** SPSS version 25 output.

The study observed from the above table (Table 4.2) that for the period considered for the study (2010 - 2020), the zenith of inventory held by the company is valued at ₦67.74 million, while its lowest value was ₦14.58 million. It however averaged ₦42.1 million for the period.

It is also seen to have moderate volatility as the indicator of such volatility – standard deviation stands at ₦18.64 million in each year. The company's trade receivables also seem to be modest as the year-ending value of receivables did not exceed ₦27.3 million in any year, whilst not falling below ₦4.12 million. These gulped an annual average of ₦12.3 million, which may rise or fall by as much as the standard deviation ₦7.64 million. On the other hand, the trade payables have been of higher value, relative to the trade receivables. Specifically, the value of trade payables rose to as much as ₦60.38 million, and declined to as low as ₦1.87 million. These stabilised at about ₦32.37 million annually, with a possibility of falling or rising by as much as ₦19.1 million annually. Interestingly, the net assets for the period peaked at ₦1,352 million, while at some point it declined to its lowest value of ₦211.51 million. These yielded an average of ₦840.04 million which could deplete or appreciate by as much as ₦386.3 million.

### Multiple regression (ordinary least square)

Prior to the actual analysis and interpretation of the variables employed in the study, it is pertinent to consider the appropriateness of the model used, as the validity of the result will be dependent on the validity of the system (model) which produces it. To this end, the model is summarised below:

**Table 3: Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.910 <sup>a</sup>	.828	.754	191411.05867

a. Predictors: (Constant), PAY, INV, REC

**Source:** SPSS version 25 output.

The R-squared ( $R^2$ ) otherwise called coefficient of determination is 0.828 which represents 82.8%. The implication of this is that the employed independent variables (inventory, trade receivables and trade payables) accounts for about 82.8 percent of change in the dependent variable (Net Assets) while the other 17.2% is accounted for by other variables that can be associated with net assets or corporate value, but excluded from the model – white noise. The adjusted  $R^2$  shows a more robust test of variability in the sense that it is not susceptible to the addition of more independent variables to the model. It stands at 0.754 which implies that irrespective of the number of variables considered, they cannot account for less than 75.4% variability of the dependent variable. Given that the minimum threshold for the goodness of fit is 60%, the  $R^2$  is considered adequate.

**Table 4: Coefficients and parameters of inventory, trade receivables and payables<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-57282.365	187682.957		-.305	.769
INV	16.263	3.718	.785	4.374	.003
REC	10.649	9.132	.211	1.166	.282
PAY	2.552	3.194	.126	.799	.451

a. Dependent Variable: NAS

Source: SPSS version 25 output.

From the output above, it can be observed that the coefficient of the constant (C) is -57,282, which indicates that if the independent variables are held constant or zero, the corporate value as symbolized by net assets will maintain at least an annual depletion by 57,282 million per year. The coefficients further show the extent to which a change in net assets or corporate value could be influenced by working capital. The coefficient for inventory is 16.3 as seen in the table above, indicating a positive relationship with net assets to the extent that a unit increase in the value of inventory would lead to a 16.26 units increase in the net assets of the company. The reverse holds true, if there is a fall in inventory. The results further show a positive relationship between trade receivables and net assets of the firm under consideration as the coefficient stands at 10.65 implying that a unit change in trade receivables, will culminate in a 10.65 units change in nets assets in the same direction, as both variables move in the same direction. Furthermore, it is observed that trade payables has a direct relationship net assets as the parameter of trade payables stands at 2.55 which implies that a unit increase in trade payables will result in a 2.55 units increase in the corporate value.

**Table 5: Analysis of Variance<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1235736811912.392	3	411912270637.464	11.243	.005 <sup>b</sup>
Residual	256467353672.153	7	36638193381.736		
Total	1492204165584.545	10			

a. Dependent Variable: NAS

b. Predictors: (Constant), PAY, INV, REC

Source: SPSS version 25 output.

The F-statistics and its probability are used to estimate the overall significance or otherwise of the independent variable(s) on the dependent variable. For this work, the F-statistics value of 11.243 shows a probability value of 0.005 which is lower than 0.05 (5%) significance level set *ab initio*. This shows that the employed model has a good fit and

similarly implies that the independent variables – inventory, trade receivables and trade payables have significant relationships and fit with net assets.

### **Test of hypotheses**

The t-statistics and attendant probabilities (as captured in +Table 4.4) are used to test the respective hypotheses stated in the null and alternate form as follows:

#### **Hypothesis one**

**H<sub>01</sub>:** There is no significant relationship between value of inventory and net assets of DangoteCement Plc..

**H<sub>A1</sub>:** There is a significant relationship between value of inventory and net assets of Dangote Cement Plc.

A consideration of the linear regression output in Table 4.4 shows that, the t-statistics for value of inventory is 4.374 with a probability of 0.003 which is lesser than the pre-set significant level of 0.05 (5%). Therefore, the study rejects the null hypothesis and accepts the alternate. This shows that there is a significant relationship between value of inventory and net assets of Dangote cement Plc.

#### **Hypothesis two**

**H<sub>02</sub>:** There is no significant relationship between trade receivables and net assets of Dangote Cement Plc.

**H<sub>A2</sub>:** There is a significant relationship between trade receivables and net assets of Dangote Cement Plc. A consideration of the linear regression output in Table 4.4 shows that, the t-statistics for trade receivables is 1.166 with a probability of 0.285 which is greater than the pre-set significant level of 0.05 (5%). Therefore, the study does not reject the null hypothesis. This shows that there is no significant relationship between trade receivables and net assets of quoted manufacturing companies in Nigeria.

#### **Hypothesis three**

**H<sub>03</sub>:** There is no significant relationship between trade payables and net assets of Dangote Cement Plc.

**H<sub>A3</sub>:** There is a significant relationship between trade payables and net assets of Dangote Cement Plc.

A consideration of the linear regression output in Table 4.4 shows that, the t-statistics for trade payables is 0.799 with a probability of 0.282 which is lesser than the pre-set significant level of 0.05 (5%) therefore the null hypothesis is not rejected. Thus, we accept the null hypothesis which states that there is no significant relationship between trade payables and net assets of quoted manufacturing companies in Nigeria.

### **Discussion of findings**

The results from the descriptive analysis show that the company keeps low inventory, and has low level of receivables, while its payables are quite high. This portrays adoption of just-in-time inventory management system which allows for zero or low inventory in manufacturing firms. It is also seen that the trade receivables are quite low given the size

of the firm. This suggests that the firm is “cash-rich” thus should have high level of free cashflow. When juxtaposed with the high trade payables, it can be insinuated that the firm has adopted a cash management strategy that minimizes receivables and delays payment of payables. Whilst this is the best cash management approach, it could portend high risk for the firm, thus increase its borrowing cost or cost of capital. The study also provides evidence of positive and significant relationship between value of inventory and net assets of the firm studied. This simply implies that the value of inventory is critical to defining corporate value as those inventories would be eventually converted to revenue through sales.

Besides, inventory being a critical component of current assets is vital in the determination of net assets, therefore an increase in its value will ultimately lead to an increase in the value of net assets. Trade receivables are also positively related to net assets as seen in the analytical results. This implies that any increase in trade receivables will culminate in a commensurate increase in the value of net assets. This is in concordance with anecdotal knowledge that appreciation in the value of trade receivables will ultimately lead to increase in the value of net assets of the firm. This also means that there will be considerable reduction in expenses related to cash recovery effort as well as reduced possibility of bad debt. Trade payables reflect results that are in abeyance with conventional conceptualizations which suggest that increased payables or liabilities are antithetical to corporate value. However, increased trade payables could imply availability of sufficient cash balance or free cashflow which could be channeled to other investment opportunities to yield profits for the firm. Thus, increased trade payables could also translate to other income, and by implication profit.

### **Conclusion**

The empirical analyses in the study have brought certain salient findings to the fore. For instance, the descriptive analysis suggests that in the pursuit of profitability and increased corporate value or net assets, corporate stability could be compromised as there could be increased risk due to very high level of trade payables. It can also be inferred from the positive relationship between the independent variables and net assets that working capital actually promotes corporate value. This connotes that the influence of working capital exceeds operational fluidity to the value of the net assets of the organization. Conclusively, there is a significant relationship between working capital and net assets.

### **Recommendations**

Given the findings and conclusions, the following recommendations are made:

1. To ensure availability of materials, adequate provision for supplies should be made to forestall production stoppages.
2. The low level of trade receivables could be antithetical to revenue and a reflection of strict terms of trade, therefore to improve on revenue, credit terms should be made more flexible.
3. Efforts should be made to reduce the level of trade payables in order not to heighten the exposure of the firm.

## References

- Adeniji, (2018). Working Capital Approaches and Firm's Returns. Pakistan Journal of Commerce and Social Sciences
- Annand and Gupta's (2015). Impact of Working Capital Efficiency on Profitability: an empirical study on Jordanian manufacturing firms. International Research Journal of Finance and Economics, (66).
- Arnold (2018). "Working Capital Management and Profitability – Case of Pakistani Firms", *International Review of Business Research Papers*, Vol. 3 No.1, pp. 279-300.
- Arroe, Harry (2019). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 19(1), 26-35.
- Azam and Haider, (2015). The relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 19(1): 26-35.
- Brigham and Houston (2018). 'Fundamentals of financial management', 10th ed. McGraw-Hill Inc: New York.
- Daniel and Ambrose, (2015). The Assessment of the Effect of Working Capital Management on the Profitability of Pharmaceutical Companies of Tehran Stock Exchange. *American Journal of Scientific Research*, 48(2012), 121-129.
- Deloof (2018). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting* 30 (May): 573-588. <https://doi.org/10.1111/1468-5957.00008>
- ELjelly, (2014). *Liquidity-profitability trade-off: an empirical investigation in an emerging market*. International Journal of Commerce and Management, Vol 14, No. 2, pp. 48-61
- Falope and Ajilore, (2019). Asikhia OU. Research journal of business management, 3(3), 73-84.
- Gill, Biger and Mathur (2020). The relationship between working capital management and profitability: evidence from The United States. *Business and Economics Journal* (2010): 1-9
- Grablowsky (2015). Principle of managerial finance (13th ed). New Jersey: Prentice Hall.

- Horne and Wachowite, (2020). Impact of Aggressive Working Capital Management Policy on Firm's profitability, *The IUP Journal of Applied Finance* Vol. 15, Aug.
- Jain and Kumar (2019). Impact of working capital policy on firm's profitability: A case of Pakistan cement industry. *Research Journal of Finance and Accounting* 5(5): 476-484.
- Lazaridis and Tryfonidis (2016). The relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 19(1): 26-35.
- Makori&Jagongo, (2016). Net Operating Working Capital Behavior: A first Look, *Financial Management* (forthcoming).
- Mathura, (2017). The relationship between working capital management efficiency and credit: evidence from textile sector of Pakistan. *Interdisciplinary journal of contemporary research in business*, 4(5), 211-224.
- Nazir, M. S., & Afza, T. (2009). Impact of aggressive working capital management policy on firms' profitability. *IUP Journal of Applied Finance*, 15(8), 19.
- Mathuva, (2018). "The Influence of Working Capital Management Components on Corporate Profitability: A Survey on Kenyan Listed Firms", *Research Journal of Business Management*, 4(1): 1-11.
- Mekonnen (2016). The focus of Working Capital Management in UK Small Firms, *Managerial Accounting Research*, Vol. 14, June.
- Molina and Preve (2019). "Working Capital Management and Profitability – Case of Pakistani Firms", *International Review of Business Research Papers*, Vol. No.1, pp. 279-300.
- Mukhopadhyay, (2014). "The Impact of Working Capital Management on Firms' Profitability" Unpublished Master Thesis, Addis Ababa University: Ethiopia
- Myers (2018). Cash-flow sustainable growth rate models. *Journal of Public Administration, Finance and Law* (7): 62-70.
- Naimulbari, (2018). Sensitivity of profitability to working capital management: a study of Indian corporate hospitals. *International*.
- Nerware (2020). Working capital management and profitability: Evidence from Ghanaian listed manufacturing firms. *Journal of Economics and International Finance*, 5(9), 373.

- Ogundipe, Idowu&Ogundipe, (2015) Modern corporate finance: a multidisciplinary approach to value creation. New Jersey: Prentice Hall.
- Pandy, (2015).The relationship between working capital management and profitability: a Vietnam case.
- Petersen Rajan (2017). Impact of Working Capital Management on Profitability and Market Evaluation: Evidence from Tehran Stock Exchange. *International Journal of Business and Social Science*, 3(10).
- Rahemam& Nasr, (2017). The relationship between working capital management and profitability: a Vietnam case.
- Raheman, Afza, Qayyum and Bodla (2020). Working Capital Management and Profitability – Case of Pakistani Firms”, *International Review of Business Research Papers*, Vol. No.1, pp. 279-300.
- Rehman (2016). Impact of Working Capital Management on Profitability: The Case of Canadian Firms: Unpublished Master Thesis, Saint Mary’s University: Canada.
- Shahid (2015). Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, 8(2): 37-45.
- Smith, Reheman& Nasr, (2017). Working capital financial preferences: the case of Mauritian manufacturing Small and Medium-Sized Enterprises (SMEs). *Asian Academy of Management Journal of Accounting and Finance* 8 (1): 125-157.
- Talekar, S.(2015). Effects of Working Capital Management on SME Profitability”, *International Journal of Managerial Finance*, Vol. 3 No.2, pp. 164-177.
- William, B. (2019). Determinants of working capital management: Evidence from Malaysia. In *Financial Theory and Engineering (ICFTE)*, International Conference. pp: 190-194