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EFFECT OF WORKING CAPITAL MANAGEMENT ON FINANCIAL PERFORMANCE OF QUOTED CONGLOMERATE FIRMS IN NIGERIA

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ABSTRACT

This study examined the effect of working capital management (WCM) on the financial performance of quoted conglomerate firms in Nigeria for the period 2006 to 2016. Account receivable period (ARP), account payable period (APP), inventory turnover period (INV) and cash conversion cycle (CCC) were adopted as the proxies for WCM while return on equity (ROE), return on assets (ROA) and return on investments (ROI) were adopted as proxies for financial performance. Secondary data were obtained from ten (10) quoted conglomerate firms' financial statements and Structural Equation Modeling (SEM) was used for the analysis. The study reveals that APP and CCC have positive effect on financial performance; while ARP and INV have negative effect on financial performance. The general result indicates that there is significant effect of WCM on financial performance (ROA, ROE and ROI) of quoted conglomerate firms in Nigeria. It is recommended that the companies should; ensure speedy collections of account receivables; increase account payable period; formulate and implement effective strategies for inventory management system that minimizes inventory turnover period and management should ensure that investments in working capital is optimized by reducing the length of time from the actual outlay of cash for purchases until the collection of receivables resulting from the sales of goods or services.

Key Words: Working capital management, Financial performance, Account receivables, Account payables, Cash conversion cycle

INTRODUCTION

One of the most important decisions that affect the decision of the firm's profitability and liquidity is working capital management which is related to current assets and liabilities management. Current assets and liabilities should be managed efficiently for safeguarding the firm against the risk of illiquidity. Lack of liquidity or (illiquidity) in extreme situations can lead to insolvency. The management of these short – term assets and liabilities requires a careful investigation since it plays an important role in firm's profitability, risk as well as ensuring maximization of the firm's value.

Among the major components of working capital are account receivables, account payables, inventory and cash conversion cycle. The inventory of a manufacturing concern comprise of finished goods, work in progress and raw materials. The sum of the three components of the inventory is essential part of virtually all business operations and constitutes a heavy investment in manufacturing firm. A firm neglecting the management of inventories will be jeopardizing its long – run profitability and may fail ultimately (Pandey, 2005). Account receivables arise when a firm sells its product or services on credit and does not receive cash immediately. Firms would, in

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general, rather sell for cash than on credit, but competitive pressures force most firms to offer credit (Brighton & Houston, 1998). Account payable is the amount of money promised by a recipient of goods to a supplier where a credit transaction is involved (Kimunda, 2008). It represents the amount of money a firm owes to its suppliers. The cash conversion cycle is a popular measure of working capital management which is calculated as days of sales in receivables plus day's sales in inventory minus day's payable outstanding (Bigger, Gill & Mathur, 2010). This cycle essentially denotes the number of days a company's cash is tied up by its current assets and liabilities.

Salawu and Alao (2014) posited that a vast majority of companies in Nigeria either maintain excessive or inadequate working capital level – both levels are inappropriate. According to Van-Horne and Wachowicz, (2008) excessive level of current assets may have a negative effect on a firm's profitability whereas a low level of current assets may lead to low liquidity and stock – out, resulting in difficulties in maintaining smooth operations. The management of working capital is very important to all businesses of all forms and sizes as well. Poor management of working capital can lead a firm to liquidity crisis by reducing its profitability and creditability, so managing working capital effectively is necessary for going concern of the business and also for its profitability. Several empirical studies on working capital management and financial performance were carried out but their findings were contradictory. While studies like Lazaridis and Tryfonidis (2006); Owolabi and Alu (2012); Onwumere, Ibe and Ugbam (2012); Wembe (2013); Mwangi, Makau and Kosimbei (2014); Agha (2014); revealed that working capital management have significant effect on firms

financial performance, others like Deloof (2003); Raheman & Nasr (2007); Ogundipe, Idowu & Ogundipe (2012); Bhunia & Das (2012); Ahmedebad, Mehrabi & Yazdi (2013); Konak and GÜner (2016); found that there is no significant effect of working capital on the financial performance of firms.

The statistical tools used in these studies also differ. Most studies used simple percentages, Ordinary Least Squares (OLS), multiple regression, correlation analysis and so on to analyse their components. It is against the aforementioned that this study uses the Structural Equation Modeling (SEM) technique to study the effect of working capital management components on financial performance.

The study considered the following hypotheses:

Ho_1: Account receivable period does not significantly affect the profitability of quoted conglomerate firms in Nigeria.

Ho_2: Account payable period does not significantly affect the profitability of quoted conglomerate firms in Nigeria.

Ho_3: Inventory turnover period does not significantly affect the profitability of quoted conglomerate firms in Nigeria.

Ho_4: Cash conversion cycle does not significantly affect the profitability of quoted conglomerate firms in Nigeria.

LITERATURE REVIEW

Concept of Working Capital Management (WCM)
Working capital refers to the part of firm's capital, which is required for financing short-term or current assets such as cash, marketable securities, debts and inventories (Ahmed, 2016). It is the items that are required for the day to day production of goods to be sold by a company. Akinsulire (2013) described working capital as the excess of current assets over current liabilities and

represents the amount that is invested in assets that are expected to be realized within the year's trading. It is a trading capital not retained in the business in a particular form for longer than a year which meets the short term financial requirements of a business enterprise. Working capital management refers to the decisions relating to working capital and short- term financing and involves managing the relationship between a firms's short –term assets and its short –term liabilities. The goal is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. The business will not be able to carry out its day to day activities without the availability of working capital.

According to Mawhiraju (1999) working capital management involves administration of current assets and current liabilities which consists of optimizing the level of current assets in partial equilibrium context. It tends to explore the relationship between a firm's short –term assets and its short-term liabilities. Khan and Jain (2007) explained that working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them.

Tulsian (2010) explained that working capital is needed because of the existence of operating cycle or working capital cycle. He viewed the operating cycle as the duration of time between acquisition of supplies and the collection of cash from receivables. The cycle measures the time between paying for goods being supplied to the buyer and the final receipt of cash from the sale of these goods. Basically, working capital is required to finance operations during operating cycle for the business to run smoothly.

A firm has to look at each of the components of WCM and try to determine the optimal level based on some trade-offs. This optimal level can be reached if it maximizes the value of a firm (Howorth & Westhead 2003; Deloof, 2003; Afza & Nazir 2007). Following are some major components of WCM.

Account Receivable Period (ARP)

Account receivables can be seen as short-term loans to customers given by the supplying firm. Giving these credit terms to customers are an important way of securing sales (Benard, 2006). When the accounts receivables keep growing, funds are unavailable and therefore can be seen as opportunity costs. Account receivable period is the time between sale of inventory and collection of the receivables (Ross, Westerfield, Jaffe & Jordan, 2008). It is also known as receivable turnover ratio and is a very important indicator that shows how efficient the company is performing its financial activities. It is calculated by dividing annual net credit sales by receivables (Van –Horne & Wachowicz, 2008). Receivables turn over =

$$\frac{\text{Annual net credit sales}}{\text{Receivables}}$$

Account Payable Period (APP)

Account payables are the opposite of account receivables, instead of giving a credit on a sale, a firm receives a credit. Hampton and Wagner (1989) explained account payables as follows: When a firm makes a purchase on credit, it incurs an obligation to pay for the goods according to the terms given by the seller. Until the cash is paid for the goods the obligation to pay is recorded in accounts payables. It is calculated in the same way receivable turnover is computed. According to Van –Horne and Wachowicz (2008) account payable period or payable turnover in days (PTD) can be computed as:

$$\text{Days in the Year}$$

Payable Turnover

Or

Accounts Payable × Days in the Year
$\overline{\text{Annual Credit Purchases}}$

Inventory Turnover Period (ITP)

Inventory represents a large part of the total assets of many firms and an effective management is needed for normal production and selling operations of the firm and for keeping the costs of holding inventory at a minimum. The goal of inventory management is to minimize the costs of storing and financing goods while maintaining a level of inventories that satisfies the amounts of sales of a firm. Deloof (2003) argues that with inventory management there is a trade-off between sales and costs. If a firm keeps more stock it could result in more sales, but it will also be more costly. A firm needs to determine an optimal level of the amount of stocks to keep as inventories.

Inventory turnover $= \dfrac{\text{Cost of goods sold}}{\text{Inventory}}$

Cash Conversion Cycle (CCC)

Cash conversion cycle is the length of time from the actual outlay of cash for purchases until the collection of receivables resulting from the sales of goods or services (Van Horne and Wachowicz, 2008). It represents the time difference between the acquisition of raw materials and other inputs, and the receiving of cash from the sale of the finished goods. In other words, the period between the acquiring of raw materials and the paying of these materials plus the cash conversion cycle forms the working capital cycle of a firm. The cash conversion cycle is measured using the following formula as forwarded by Pandey (2005):

Gross Operating Cycle (GOC) – Creditors (Payables) Deferral Period (CDP)

Gross Operating Cycle (GOC): The firm GOC can be determined as inventory conversion period (ICP) plus debtors' conversion period (DCP). Thus, GOC is given as follows:
Gross Operating Cycle = Inventory Conversion Period + Debtors Conversion Period

$$GOC = ICP + DCP$$

Creditors (Payables) Deferral Period (CDP): Creditors (payables) deferral period is the average time taken by the firm in paying its suppliers (creditors). It is given as:
Creditors Deferral Period
$(CDP) = \dfrac{\text{Creditors} \times 360}{\text{Credit purchases}}$

Concept of Financial Performance

Financial performance is a measure of an organization's earnings, profits, appreciations and value as evidenced by the rise in the entity's share price. In the manufacturing industry, performance is normally expressed in net profit earned from investment activities, annual turnover, returns on investment and return on equity. These measures can be classified as profit performance measures and investment performance measures. Profit performance includes the profits measured in monetary terms as the difference between the revenues and expenses of the firm.

Profit is the essential pre-requisite for the survival, growth and competitiveness of manufacturing firms and the cheapest source of funds. Without profits managers cannot attract outside capital to meet their set objectives in this ever -changing and competitive globalized environment. Profit does not only improve upon the firms' solvency state but it also plays an essential role in persuading owners and shareholders to supply funds to the firm. So, one of the objectives of management of

conglomerate companies is to attain profit as an underlying requirement for conducting any business. Following are some measures of financial performance.

Return on Assets (ROA)

Among the different measures of firms profitability used by several researchers (e.g. Falope & Ajilore, 2009; Afza and Nazir, 2009; Sharma & Kumar, 2011; Owolabi & Alu, 2012; Mwangi, Makau & Kosiembi, 2014; Ahmed, 2016; Konak & Guner, 2016) who studied the relationship between working capital and firm profitability, ROA which measures how effectively a company has used the total assets at its disposal to generate earnings receives the greater attention. This is because the ROA formula reflects total revenue, total cost, and assets deployed; the ratio itself reflects a management's ability to generate income during the course of a given period, usually a year.

Return on Equity (ROE)

Return on equity calculate a firms profitability by investigating how much profit a firm achieve with the money shareholders have invested. ROE is a fundamental indication of a company's ability to increase its earnings per share and thus the quality of its stock, because it reveals how well a company is using its money to generate additional earnings.

Return on Investment (ROI)

Pandey (2005) described ROI as a measure of a company's profitability and its management ability to generate profits from the funds investors have placed at its disposal.

Empirical Review

Lazaridis and Tryfonidis (2006) investigated the relationship between working capital management components and corporate profitability of a sampled 131 companies listed in the Athens Stock Exchange (ASE) for the period

2001 – 2004. The research findings show negative relationship between corporate performance and accounts receivables. Amarjit, Nahum and Neil (2010) in a study of 88 American firms listed on the New York Stock Exchange (NYSE) in the United States for a period of 3 years (2005 – 2007) also found a negative relationship between profitability and average days of account receivable. But Sharma &Kumar (2011); Ahmadabad, Mehrabi and Yazdi (2013); and Salawu and Alao (2014) found out that accounts receivables are positively related to return on assets.

Raheman and Nasr (2007) examined the effect of different working capital variables including account payment period on the net operating profitability of 94 selected Pakistani firms listed on the Karachi Stock Exchange (KSE) for a period of six years from 1999 – 2004 and found that there is a strong negative relationship between account payment period and profitability of the firms. Falope and Ajilore (2009) used a sample of 50 Nigerian quoted non-financial firms for the period 1996 – 2005 found a significant relationship between profitability and the average payment period. Similarly, Mathuva (2009); Sharma and Kumar (2011); in Nigeria, Onyeji (2013); and Ukaegbu (2014) found a significant relationship between profitability and the average payment period.

In Ethiopia, Tewodros (2010) examined the effect of management of inventory turnover on the profitability of 11 sampled private manufacturing firms in Ethiopia for a period of 2005-2009. Using descriptive statistics, the findings reveal that it took firms an average of 314 days to sell inventory. The result also reveals that longer inventory turnover period is associated with lower profitability. Similar results were found by Azam and Haider (2011); In Kenya Makori and Jagongo (2013); In Pakistan Iqbal and Zhuquan (2014). In

contrast, Maina (2013); and India, Yadav and Kumar (2014).

In United States, Shin and Soenan (1998) reported strong negative relation between cash conversion cycle and profitability. They concluded that shorter the days of cash conversion cycle capital, higher the profitability. In Saudi Arabia, Eljelly (2004) using correlation and regression analysis found negative relationship between the firm's profitability and conversion cycle, Deloof (2003); Raheman and Nazir (2007); Akinlo (2010); Garcia (2011); Kulkanya (2012) Enqvist, Graham and Nikkinen, J. (2014) all found a strong negative relationship between cash conversion cycle with corporate profitability. Karabay and Gulseren (2013) ;Vural, Sokmen and Cetenak (2012) in Turkey revealed similar results.

Theoretical Framework

This section covers the theoretical underpinnings from which the study is rooted. The theories are stated from which it will be supported by the findings of the study

Agency Theory

The agency theory view shareholders as owners/ principals of a company and the managers as their agents. Thus, there is principal – agent relationship between shareholders and managers. In theory, managers should act in the best interests of shareholders. In practice, managers may not necessarily act in the best interest of shareholders, and they may pursue their own personal goals. For instance, managers may allow for investment in trade credit if they think it will maximize sales growth and increase company's wealth but the shareholders are concern about the risk involved in such investments because such satisfying behavior of managers may frustrate the objective of shareholders' wealth maximization. It is in the interest of managers that the firm survives over the long - run. When managers extend such

obligations, they wish to enjoy independence and freedom from outside interference, control and monitoring. Thus, their actions are likely to be directed towards the goals of survival and self-sufficiency. Further, a company is a complex organization consisting of multiple stakeholders such as employees, debt –holders, suppliers, government and society. Managers in practice may, perceive their role as reconciling conflicting objectives of stakeholders. This stakeholders' view of manager's role may compromise with the objective of shareholders wealth maximization.

Transaction -Cost Theory

The transaction cost theory suggests that there are certain costs that people normally incur without knowing that they are cost to them. These costs must be incurred whenever a transaction takes place which is known as transaction costs. These costs came to be considered as part of economic thinking. The idea that transactions form the basis of an economic thinking was introduced by John R. Common in 1931 (Williamson, 1975). Basically, the theory focuses on the claim that transactions will be handled in such a way as to minimize the costs involved in carrying them out. A transfer of good and service is the unit of analysis in transaction cost theory and the means of effecting the transaction is the principal outcome of interest. For the purpose of this study, account payable periods can be explained by transaction cost theory in that the loss in discounts from suppliers is a cost to the debtor.

Economic Order Quantity Model (EOQ)

This model is an inventory control model and is based on minimization of costs between stock - holding and stock -ordering. It requires the determination of economic order quantity (EOQ) which is the ordering quantity at which stock-holding costs are equal to stock- ordering costs (Saleemi, 1993). It suggests that the optimal

inventory size is the point at which stock -ordering costs are equal to the stock holding costs. The optimal inventory size is known as economic order quantity (EOQ). Following are the assumptions of EOQ; (1) annual usage (consumption) of inventory is known; (2) rate of usage is known and constant; (3) ordering costs are known and constant; (4) carrying cost are known and constant; (5) carrying costs are known and constant; (6) zero lead time / delivery period. (i.e. inputs are supplied as and when ordered (Tulsian,2010). The EOQ model merely takes variable costs into consideration, although it can easily be extended so as to include fixed costs.

Baumol's and Miller- Orr Cash Management Model

The Baumol's model is one of the numerous models designed to indicate the optimum amount of cash that a company should hold. Accordingly, the model posits that the optimum cash balance is that level of cash where the total of carrying costs (or holding costs) and transaction costs is the minimum (Tulsian, 2010). The model aimed to minimize opportunity cost associated with holding cash and trading costs involving converting other cash. It assumes that the firm holds a portfolio of marketable securities which can easily be converted into cash (Baumol, 1952). According to this model, cash is assumed to start from replenishment level C' and then declines smoothly to a value zero. When cash declines to zero, it can be immediately replenished by selling another C' worth of marketable securities for which the firm has to pay a trading cost.

The opportunity costs represent the interest foregone for funds which are held in cash instead of being invested. The trading costs correspond to fixed costs which are incurred when a company decides to either buy or sell marketable securities (Pandey, 2008). If a company decides to maintain a low cash level it will have to carry many transactions leading to high trading costs and opportunity costs because there are little idle cash funds. If it maintains a high level of cash, the firm's opportunity costs will be higher due to the relatively large amount of un-invested cash but the trading costs will decrease since only a few transactions will be necessary.

Baumol's cash management model has three assumptions; (1) the firm uses cash at a steady predictable rate; (2) cash flows from operations also occur at a steady state; and (3) the net cash out flow occur at a steady state. Under these assumptions, the model can be stated as follows:

$C = 2TF / i$

Where;

C = is the optimal cash replenishment level

T = is the annual demand for cash

F = is the trading cost per transaction

i = is the interest rate on marketable securities

METHODOLOGY

The research design for this study is descriptive research method using data set of eleven years (2006 -2016) to explore the effect of independent variables on the dependent variables and the nature of the relationship that exist between them. The researchers adopted descriptive studies because the study is concerned with finding out if a relationship exists between the two variables and the extent of such relationship.

The population of the study is the entire ten (10) conglomerate firms quoted on the Nigeria Stock Exchange (NSE) as at 2016, which are A.G. Leventis Nig., Cadbury Nig. Plc., Chellarams, John Holt Plc., Nestle Nig. Plc., PZ Cussons Nig., SCOA Nigeria Plc., Transcorp of Nig. Plc., UAC of Nigeria Plc, and Unilever Nig. Plc. The entire population was selected for the study.

The study utilizes secondary data generated from

the companies' annual financial statements and the Nigeria Stock Exchange (NSE) fact book for the period of 2006 – 2016. The Structural Equation Modeling (SEM) was used to analyze the data to measure the effect of working capital management on the financial performance of quoted conglomerates firms in Nigeria. The method is preferred by the researcher because it estimates the multiple and interrelated dependence in a single analysis and in the analysis two types of variables are used; endogenous variable and exogenous variables.

Model Specification

A SEM model was developed to test the extent of the relationship between working capital management and financial performance.
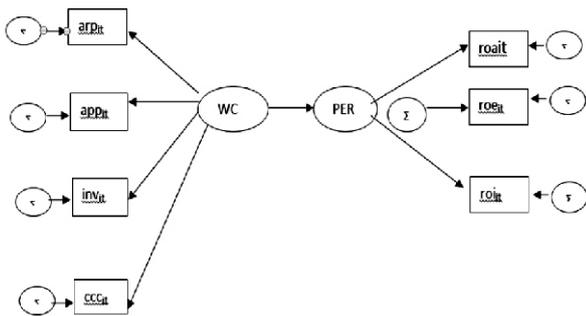
(A)   Dependent (Endogenous) variables
         arp_{it} = Account Receivable Period by firm $_i$ at period $_t$

app_{it} = Account Payable Period by firm $_i$ at period $_t$

inv_{it} = Inventory Turnover Period by firm $_i$ at period $_t$

ccc_{it} = Cash conversion cycle by firm $_i$ at period $_t$

(B)   Independent (Exogenous) variables

roa_{it} = Return on assets by firm $_i$ at period $_t$

roe_{it} = Return on equity by firm $_i$ at period $_t$

roi_{itit} = Return on investment by firm $_i$ at period $_t$

t = Time = 1, 2, 3 ----------- 10 (2006-2015)

ε_1, ε_2, ε_3, ε_4, ε_5 ε_6, ε_7, ε_8 = Coefficients of each respective variables.

Variable	Abbreviation	Formula
Return on Assets	roa	Net Income / Total assets
Return on Equity	Roe	Net Income / Common equity
Return on Investment	roi	(Return from investment – Cost of Investment) / Cost of investment
Account Receivable Period	arp	Receivables / Annual credit sales × 365
Account Payable Period	app	Payables / Annual purchases × 365
Inventory Turnover Period	inv	Inventory / cost of goods sold × 365
Cash conversion Cycle	ccc	ICP + DCP – CDP

The cash conversion cycle formula is given as: ICP = Inventory Conversion Period; DCP =   Debtors Conversion Period; and CDP = Creditors (Payables) Deferral Period

Results and Discussions

Descriptive statistics

Table 1.

| Stats	ROA	ROE	ROI	ARP	APP	INV	CCC
Mean	5.27	-9.16	10.80	92.48	185.88	22.21	19.18
p50	4.66	11.38	9.26	64.75	150.91	18.06	38.82
Sd	9.10	206.89	10.83	91.92	152.87	14.72	147.98
Min	-17.18	-2087.70	-13.84	0.26	28.01	4.07	-545.93
Max	28.57	92.79	43.52	608.25	980.15	73.40	432.88
N	109	108	108	108	106	108	106

Source: Computed Using Stata 18.0 (2017)

Table 1 shows the descriptive statistics for all the variables used in this study. The mean value of ROA for the firms was 5.27 and the median value is 4.66 which show the absence of outliers. The minimum and maximum value of ROA among the sampled firms was -17.18 and 28.57 respectively. The standard deviation was found to be 9.10 from the mean value and there were 109 observations. The mean value of ROE for the firms was – 9.16 and the median value are 11.38 which show the absence of outliers. The minimum and maximum value of ROE among the sampled firms was -2087.70 and 92.79 respectively. The standard deviation was found to be 206.10 from the mean value and there were 108 observations. The mean value of ROI for the firms was 10.80 and the median value is 9.26 which show the absence of outliers. The minimum and maximum value of ROI among the sampled firms was   -13.84 and 43.52 respectively. The standard deviation was

found to be 10.83 from the mean value and there were 108 observations.

For the account receivable period, the mean value was 92.48% with minimum and maximum values of 0.26% and 608.25% respectively. These values with the exception of the minimum value also indicate the presence of outliers. Similarly, for account payable period (APP), the mean value was 185.88% with minimum and maximum values of 28.01% and 980.15% respectively. These values indicate the absence of outliners. In the case of inventory turnover period, the average value was 22.21% with minimum and maximum values 4.07% and 73.40% respectively with a standard deviation of 14.72. The minimum value indicates the presence of outliners. The mean value of cash conversion cycle was 19.18% with maximum and minimum values of 432.88% and -545.93% respectively. The minimum value indicates the presence of outliners. The standard deviation stood at 0.9%.

Test of Hypotheses

This section tests the hypotheses of the study as stated in the background using Structural Equation Modeling (SEM) to test the hypotheses at 5% level of significance.
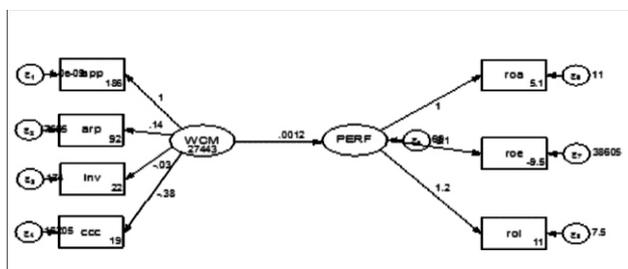
The results obtained from the model are presented in the following tables

Account Receivable Period and Financial Performance

Table 2.

	ROA	ROE	ROI
Coefficient	-0.211	-1.042	-0.271
p-value	0.000	0.473	0.000
Chi^2	15.28	18.10	16.24
p-value	0.004	0.003	0.003

Source: Computed Using Stata 18.0

The structural equation result shows that account receivable period has negative effect on profitability as represented by the coefficients of ROA, ROE and ROI (-0.211, - 1.042 and -0.271 respectively). These effects are significant for ROA as p-value is 0.000 and ROI as the p-value is 0.000, but insignificant for ROE as its p-value of 0.473 is greater than 5% level of significant. The chi^2 values are positives and significant which shows that the models are fit for what they measured. The findings corroborate with that of Amarjit, Nahum and Neil (2010); Lazaridis and Tryfonidis (2006); Ahmadabad, Mehrabi and Yazdi (2013) but the finding is inconsistent with that of ; Sharma and Kumar (2011); Salawu and Alao (2014).

Account Payable Period and Financial Performance

Table 3.

	ROA	ROE	ROI
Coefficient	0.223	1.033	0.247
p-value	0.000	0.456	0.000
Chi^2	15.28	18.10	16.24
p-value	0.004	0.003	0.003

Source: Computed Using Stata 18.0

The structural equation result shows that account payable period has positive effects on profitability as represented by the coefficients of ROA, ROE and ROI. These effects are significant for ROA and ROI, but insignificant for ROE as its p-value of 46% is greater than 5% level of significant. The chi^2 values are positives and significant which shows that the models are fit for what they measured. The P-value of 0.000 is less than the t-value of 0.05. The study, therefore, rejects Null Hypothesis and accept alternative hypothesis that account receivable period significantly affect the

profitability (ROA, ROE and ROI) of quoted conglomerates in Nigeria. This is corroborated by the correlation coefficient (r) of 0.223 that shows a moderate relationship. This is consistent with the findings of Makori and Jagongo (2013); Iqbal and Zhukuan (2014); Muntaz, Rehan, Rizwan, Murtaza, Jhanger and Khan (2013) and inconsistent with the findings of Yadav and Kumar (2014); Tewhodros (2010); Maina (2013).

Inventory Turnover Period and Financial Performance **Table 4.**

	ROA	ROE	ROI
Coefficient	-1.359	-5.175	-1.604
p-value	0.000	0.482	0.000
Chi^2	15.28	18.10	16.24
p-value	0.004	0.003	0.003

Source: Computed Using Stata 18.0 (2017)

The structural equation result shows that Inventory Turnover Period (INV) has negative effect on profitability as represented by the coefficients of ROA (i.e. -1.3590, ROE (-5.175) and ROI (with -0.71). These effects are significant for ROA and ROI, but insignificant for ROE as its p-value of 0.473 (which is 48%) is greater than 5% level of significance. The chi^2 values are all positives and significant which depicts that the models are fit for what they measured.

Cash Conversion Cycle and Financial Performance **Table 5.**

	ROA	ROE	ROI
Coefficient	0.253	1.071	0.291
p-value	0.000	0.476	0.000
Chi^2	15.28	18.10	16.24
p-value	0.004	0.003	0.003

Source: Computed Using Stata 18.0

From the structural equation result, cash conversion cycle has positive effect on profitability as represented by the coefficients of ROA (0.253), ROE (1.071) and ROI (0.291). These effects are significant for ROA (which is 0.000) and ROI (0.000), but not significant for ROE because its p-value of 0.476 or 48% is greater than 5% level of significant. The chi^2 values are positives and significant which shows

that the models are fit for what they measured. The findings is inconsistent with the findings of Shin and Soenan (1998); Deloof (2003); Akinlo (2010); Kukanya (2012); Vural, Sokmen and Cetanak (2012);Enquist, Graham and Nikkinen (2014).

General Effect of WCM on Financial Performance

Table 6.

	Coef.	Std. Err.	P > |z|	[95% Conf.	Interval]
Structural					
PERF					
WCM	0.00118	0.00584	0.2	0.041	0.012623

Source: Computed Using Stata 18.0

Table 6 presents the overall effect of WCM on performance obtained from SEM output. The SEM output shows a coefficient of 0.00118 and P-value of 0.041 which indicates that there is significant effect of WCM (account payable period, account receivable period, inventory turnover period and cash conversion cycle) on profitability (return on assets, return on equity and return on investment) of conglomerate firms in Nigeria. This corroborate with results obtained in the separate analysis made above.

CONCLUSION AND RECOMMENDATION

From the analysis performed, performance majorly depends on the components of working capital management. We can interpret this to mean that, just as performance is dependent on working capital management, it is also a major predictor of organizational performance. With regards to factors that affect performance, account payable period (APP) demonstrated a stronger effect on financial performance. The implication of this finding is that account payable period (APP) is the most significant of all the working capital management variables as its level has a strong effect on financial performance. Account receivable period, inventory turnover period and

cash conversion cycle showed weaker effects on p compared to account payable period (APP). These results indicated that the evaluation of these variables without alignment is meaningless and have weak impact on financial performance. The result also demonstrated that the combination of the working capital management variables has strong effect on financial performance.

Based on the findings of this research work, the following recommendations were made:

The study found negative effect of account receivable period on profitability. This means that whenever the ARP increases, the firm performance decreases. The companies should employ effective techniques and strategies to ensure speedy collections of account receivables.

The findings suggest that whenever the firm waits longer to pay account payables the profitability decreases. The researchers recommended that the firms should in consideration with the terms of agreement with clients accelerate payables in order to increase performance.

The findings reveals that inventory turnover period has negative effect on the financial performance of the firms. They should look closely at formulating and implementing effective strategies for inventory management system that minimizes inventory turnover period.

Considering the positive effect of cash conversion cycle on financial performance, the management of quoted conglomerate firms should ensure that investment in working capital is optimized by reducing the length of time from the actual outlay of cash for purchases until the collection of receivables resulting from the sales of goods or services.

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