https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

WORKING CAPITAL MANAGEMENT (ACP, APP) AND FIRMS' FINANCIAL PERFORMANCE (A STUDY OF SELECTED QUOTED MANUFACTURING FIRMS IN NIGERIA)

ODEYILE, Lucky Goodluck (Ph.D)
Department of Banking and Finance, Faculty of Management Sciences
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus
Anambra state
odeyilelucky2015@gmail.com
GABRIEL chukwu Nkechukwu (Ph.D)
Department of Banking and Finance, Faculty of Management Sciences
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus
Anambra state
gc.nkechukwu@coou.edu.ng
PROF. SAMUELM. NZOTTA
Department of Financial Management,
Federal University of Technology, Owerri
unzotta@yahoo.com

Abstract

Working Capital in an organization means the availability of liquidity at hand to meet immediate short- term needs, and represents the difference between the current assets and current liabilities of a firm.This research investigated the Impact of Working Capital Management on Financial performance of Firms in Nigeria. The specific objectives were to: examine the effect of debtors' days on firms' financial performance and toascertain the effect of creditors' days on firms' financial performance. In line with these objectives, two research questions and two hypotheses were formulated. The statistical toolapplied was regressionanalysis, using the E-view9 package. The study made use of the data obtained from the Annual Reports and Statement of Accounts of some selected quoted manufacturing companies, listed in the Nigerian Stock Exchange. Financial performance indicators used were Return on assets (ROA), Return on equity (ROE) Return on sales (ROS) and earnings per share (EPS). The independent variables were Average payment period (APP) andAverage collection period (ACP). Average payment period (APP) was found to be negatively and insignificantly associated with (ROA) and (EPS) in the first and third models respectively, while it is positively and significantly associated with (ROE) and (ROS) in the second and fourth models respectively. Average collection period (ACP) has a positive and significant impact on (ROA) and (EPS) respectively in the first and third models, while it has negative and insignificant impact on (ROE) and negative and significant effect on (ROS) in the second and fourth models respectively. In conclusion, working capital management is an essential tool in firms' performance as it has been found that its proper management could add value to firms and save them from insolvency and possible bankruptcy. The right and appropriate mix of variables is advised always to achieve the desired results of a firm.. It's absence will result into insolvency, other associated risks and possible bankruptcy of a firm. The study recommends that effective and efficient working capital management policies with the relevant mix of variables should be employed always,and professionally qualified Financial Managers should always be engaged to drive those techniques/policies.

Keywords:Working Capital,Working Capital Management, Firms Financial Performance, ACP APP.

https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

Introduction

Working Capital in an organization means the availability of liquidity or short term funds at hand to meet immediate short- term needs, and represents the difference between the current assets and current liabilities of a firm. The excess of current assets over current liabilities is actually what is known as positive working capital or net current assets, while the reverse is net current liabilities or negative working capital. The former denotes solvency and strong financial position, while the latter represents serious short-term financial problems in a company and or insolvency. Most financial managers do not want to find themselves in insolvency position, because it shows their inability to meet pressing short-term financial needs (Afza & Nazir, 2009).

The decisions relating to firms financing are three in nature. The first deals with the firm's capital structure, the second deals with the company's capital budgeting and the third deals with the firm's working capital management (Guila, 2014). The third decision is very important to an organization, because it borders on its liquidity and strength of its operating profitability. The efficient and effective mix of current assets and current liabilities will boost the financial position of the shareholders. The management of the right mix of variables to produce short term funds in an organization, is referred to as working capital management (Samiloglu& Demirgunds, 2008).

Working Capital management is the major issue in the management of short-term financial obligations in an organization. This is so, because it involves returns to a company and its liquidity position. All firms want the best mix of working capital elements to enhance their value and be liquid enough to meet their short-term needs, as this will help to improve the firm's performance. (Horne & Wachowicz,, 2004). Working capital management is very important for firms in the manufacturing sectors due to the fact that the main parts of their activities are in current assets. (Horne & Wachowicz 2000).

Firms in the manufacturing industry in Nigeria are among the highest contributors to the Gross Domestic Product (GDP) of Nigeria. (Nwankwo & Osho 2015). In Pakistan, the manufacturing companies contribute 12 percent to GDP and 12.9 percent of the labour requirements, (Reason 2016). There is a similar finding in a study related to the Stock Exchange of Karachi in Pakistan, for the period 2007 – 2012.

Working Capital Management plays a very important role in the growth of the Nigerian economy in areas of textile, sugar, pharmaceuticals, cement, oil and gas, petroleum, cement, beverages, hardware, equipment's, automobiles and spare parts etc. (Nwankwo & Osho, 2015).

The management of the assets of these firms is one of the major decisions of managers, because it has very big impact on the financial performance of these companies. It is considered as very significant part of manager's decision in financial decisions-making (Haq, Muhammad, Khalid & Zaheer 2014). Authors such as Rahman & Nasr (2014), Gitman (2016), Agarwal (2013), advocated that companies should maintain an efficient mix of working Capital, because too much of working capital is not good for a firm as this will create some financial problems. Inadequate on the other hand, will lead the company to liquidity collapse and possible bankruptcy/liquidation. (Gitman, 2016).Companies must therefore map out strategies to balance the two motives of profitability and liquidity, because one objective should not be traded off for the other.

In Nigeria, the consumer commodities section comes second in the size of companies that make the highest contribution to the Country's Gross Domestic Product (GDP}. The fourth sector is the industrial commodities sector. (Odi & Solomon 2015).

The importance of working capital management and its impact on financial performance, is gaining ground in the economy of Nigeria and of the world. Therefore, the extent of its impact on the economy of Nigeria and of the world is one of the main drivers of this study.

This study looked at the effect of working capital management on the developed and developing economies of the world and the difference it has made on them. The study also revealed that in Nigeria and some other developing economies more attention should be given to this area of corporate finance, so that they can reap the benefits associated with proper management of working capital elements. Although, the study in Nigeria and the information sources are not very many, from the researcher's perspective, the importance of this topic is gaining appreciable progress.

Statement of the Problem

The variables used by some of the researchers are conflicting. Dalayeen, (2013), Ngwenya (2015), for example posited that the most appropriate mixture of current assets to the total assets of a firm are the best measures of working capital management, although it indicates more of the risks return of the company. Beaumont, Smith & Fletcher (2016), suggested current assets to current liabilities as the best mix of working capital management. Oladipupo & Okafor (2013), Okaro, (2004) Akindele & Odusina (2015), Sharma & Kumar, (2011), in their studies discovered a negative association, focusing on the independent variables of account payment period, cash conversion cycle and size of firms and financial performance of firms. On the other hand, Akinlo (2011), Onwumene (2012), Walter (2014), Armstrong (2012), in their studies discovered a positive association between working capital management and firm's financial performance, using the independent variables of account receivables, inventory turnover days, age and size of firms as working capital management indicators. There is no consensus among the Authors and researchers.

Another problem discovered is that some techniques adopted by financial managers in practice, in making management of working capital decisions are not based on financial management principles. They apply poorly and badly formulated formulas, Emery, Finnerty & Stowe (2015). These poorly and badly formulated models do not assist in getting the right mix of working capital elements and these often lead to overcapitalization or undercapitalization of the firms' assets, risks returns, insolvency and final liquidation of the company.

Objectives of the Study

The main objective of this study is to examine the impact of working capital management on firm's financial performance. Specific Objectives are to:

(1) Examine the effect of debtors' days outstanding/ACP on financial performance of companies.

(2) Ascertain the effect of creditors' days outstanding/APP on financial performance of companies.

Research Questions

(1) To what extent does debtors' days outstanding/ACP relate with financial performance of companies?

(2) To what degree does creditors' days outstanding/APP relate with financial performance?

Significance of the study:

The following stakeholders will benefit from the study:

Shareholders:

To the shareholders, it gives confidence that their investments would not be used for the running of the day to day activities of the company, because they always observe what obtains in to the benefit of shareholders in other companies. Shareholders do not want their

investments to be in risky companies since they have the opportunity to switch their investments to more reliable firms. Shareholders and investors will be guided in making correct and timely decisions on investments.

Employees:

The employees will be able to determine the progress of the company – the fact that there will be enough resources to meet their daily needs. Employees are always conscious of their promotions, progress and future in the firm they work in. They want to ensure that the firm they work for can meet their needs and that of their families and can guarantee their future sustenance when they retire. Employees want to be assured of the security of their jobs

Public/Consumers:

The public/consumers will be rest assured that there will be no problem of insolvency and possible bankruptcy of the firm they deal with. The public/consumers want to deal with firms that can meet their daily demands when such demands are made, because this expectation can be cut off if such firms go bankrupt.

Regulatory Bodies:

The regulatory bodies will be able to assess their control policies on retention of cash in the firms. Regulatory bodies are put inplace to ensure that companies work in line with set standards to ensure their survival, and that of the interest of creditors, government, the public/consumers and other stakeholders are fully protected. They are also put in place to ensure that investments of investors are not lost due to maladministration and misappropriation.

Government:

The government will be able to assess the impact of their restrictions, whether it leads the company to going concern ability as expected. Going concern ability talks of a firm whose activities and trading prospects will not significantly be curtailed within the nearest foreseeable future. Government therefore ensures that policies and restrictions are put in place to ensure that companies do not operate lawlessly and fall into bankruptcy/ liquidation.

Researcher:

Researchers will be able to assess the performance of the company competitively with other firms in the same industry. Firms in the same industry are expected to perform within certain percentage or ratio, to be assessed as performing well, and any which performance is below can be assessed to be underperforming and needs attention. Those that are above average in the industry are adjudged to be doing well and used as a model for other firms in the same industry. Researchers are therefore, able to make reasonable analysis on the overall position of firms in the same industry.

Management:

The management will be able to assess the impact of the working capital management policies used and make effective comparisons with firms in the same industry, to see whether they are on the same level of progress or whether their competitors have overtaken them. Management do not want to assess the performance of their firms in isolation. Better assessment is done when results from other firms in the same industry are analysed, using the same variables and tools of operation and within the same time period. It will be of great interest to management that given the same circumstances and opportunities their firms fall within the acceptable average with firms in the same industry. This research will assist financial managers, policy makers, accountants and finance students, professionals in this

field in getting an indepth knowledge of the current techniques of working capital management.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Working capital management

Administration and working capital management border on the appropriate mix of its working capital elements. The right or effective and efficient balance between the compositions of the working capital elements will produce enough liquidity funds to the company and help meet their daily obligations, maximize the company and its shareholders value and reduce risks. The working capital elements are both short – term assets and liabilities, which include inventory of the firm, account receivables, short – term investments, prepayments, cash (both bank and cash in hand). The short – term liabilities include account payables, bank overdrafts, short – term loans, accruals etc. the proper mixture of these elements is required to guarantee enough flow of liquidity in the firm, create wealth for both the company and its investors and reduce possible risk of bankruptcy. This is why financial managers are faced with the daily challenge of what techniques of working capital policies should be adopted in their companies to save them from insolvency and bankruptcy, and the problem of "UNDERPERFORMING FIRM" among firms in the same industry. (Harris 2012).

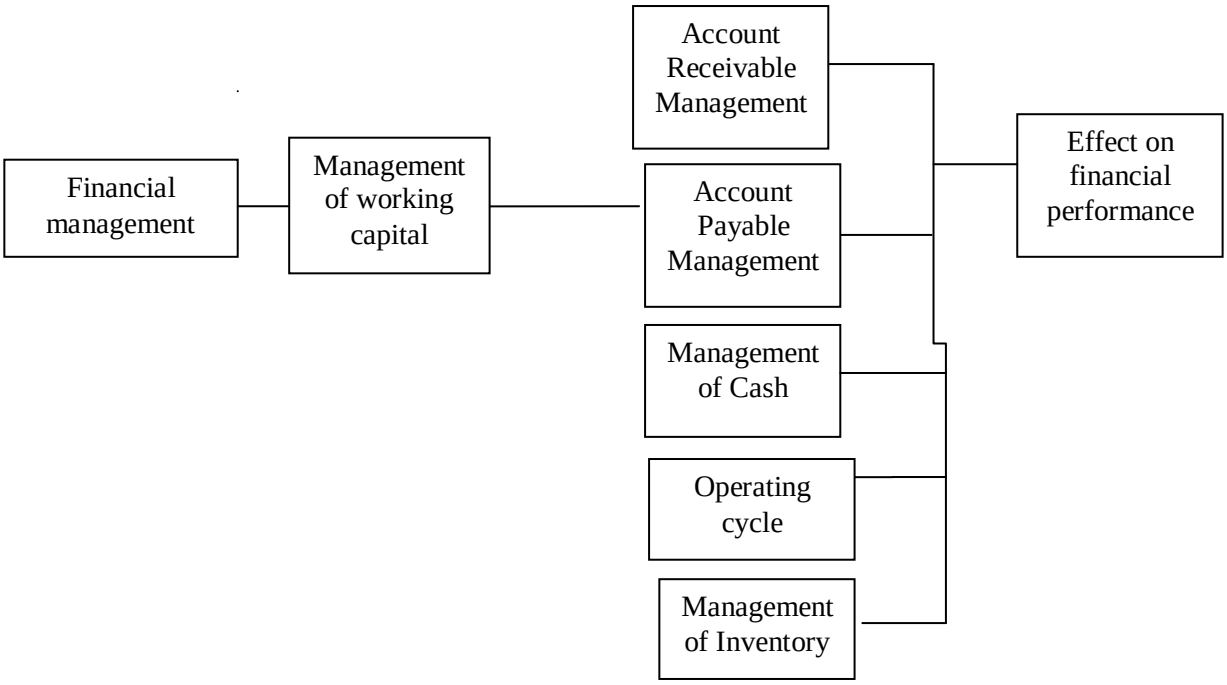
The Holding of too much inventory, keeping of too much account receivables and reduction in account payables reduces profit while small investments portray the company as not liquid enough to meet pressing obligations. Enough liquidity shows strong liquidity position and solvency, while the lack of it denotes weak liquidity position, insolvency and possibility of bankruptcy (Hampton 2016). That is why account receivable managers and account payable managers who are involved in the working capital cycle, do their level best in assisting the financial manager, who is at the driver seat, to get the right balance of variables tostimulateavailability of short term funds. These have made companies and financial managers worldwide to take this area of corporate finance very seriously, and strive to ensure at all times the appropriate balance of the working capital elements, that would reduce risks to its barest minimum and maximize returns at all times (Harris 2012).

Working Capital Management Objectives

Gitman (2016) stated that the objective of management of working capital is to ensure sufficient liquidity in a firm to meet its short – term pressing obligations. Financial managers in companies should therefore endeavour to get the right balance and mix in the working capital elements to avoid insolvency and risks and possible bankruptcy situation.. The diagram below which is modified from Gitman model (2016) shows the process of financial management, management of the variables and their effect on financial performance of a firm.

https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

Fig. 1. Process of working capital management.



Financial Performance

Financial performance is a major concern of firms and financial managers worldwide. In some companies financial performance can be measured for a period of 5 years, 10 years, 15 years etc. The company's performance trend is then measured, compared and evaluated with a view to assessing its progress. Some performance indicators used are (Return on assets (ROA), Return on equity (ROE), Earnings per share (EPS), Return on sales (ROS), Rafuse (2016). The main concern of financial management therefore is to look are the profitability of firms, solvency of firms, liquidity risks and returns, insolvency and bankruptcy of firms. They are also concerned with the factors that will drive these to the benefit of the shareholders and the value of the firm. Financial performance of a firm has a lot to show of how well the company has fared, when compared with other firms in the same industry. All stakeholders want to assess the financial performance of a company in deciding whether to deal with them or not (Padachi 2006).

The level of performance of a company reflects on the financial manager's ability in managing the firm's assets. Low performance shows low level of effectiveness while high performance indicates high level of effectiveness on the part of the financial managers (Naser & Mokhfar (2016). Financial management nowadays center on how effective the financial performance of companies are.

Tangent (2015), stated that there are several measures of financial performance such as return on sales (ROS), return on assets (ROA), return on Investment (ROI), Return on Equity (ROE). He explained that return on sales (ROS) indicates the amount of money a company realizes from sales of its products and services, return on equity (ROE) shows the return to shareholders on their investments. Return on Assets (ROA), indicates the return to an organization on the employment of its assets. He stated further that these are measures used to assess the financial performance of companies and therefore, very important in the process of financial management, and the calculation of their values are generally agreed upon worldwide.

Harrington & Wilson (2015), stated that liquidity position of a company shows it's strength or weakness in its daily management of a firm. He added that liquidity can be classified into

two, operational liquidity and structural liquidity, and explained that structural liquidity is the one that arises from the difference between current Assets and current liabilities. While operational liquiditiesare those that arise from normal business cash flow. Solvency denotes the ability of a firm to meet all pressing obligation as they fall due and also shows the company's ability to take care of risks.

Harrison & Mowen (2015), defined profitability as income from a company's production factors.He explained that profitability arises from the incomes and expenditures of a company and profitability can be measured in four ways: returns on assets (ROA), gross profit margin (GPM), Net profit margin (NPM), Asset turnover. The ability to meet payment requirements of a company depends on its profitability level.

Jelic & Briston (2016) stated that short-term funds should not be used to settle long-term debts. Short-term funds should be used for short-term debts and vise-visa and stated further that efficiency in finance shows the level of efficiency in managing capital, management and labour. Financial efficiency can also be measured by the inputs and outputs resources employed in an organization.

Theoretical Framework

Debtors' days outstanding and Creditors' days outstanding on firm's financial performance

Malik & Mohumed (2014) propounded their theory on firms' liquidity and financial position. They claimed that Average Collection Periods and Average Payment periods are the major determinants of working capital management. The efficient and effective management of the independent variables would definitely provide the much needed liquidity for a company to meet its pressing short-term obligations and remain solvent.

They asserted that when Average Collection Period days are remarkably shorter than Average Payment Period days, it provides the firm with the much needed liquidity. Cash flows in more frequently and payments to Account Payables are being deliberately delayed thereby guaranteeing the availability of funds in the firm to meet its daily pressing obligations. They gave hypothetical example of Average Collection Period to be 20 days, and Average Payment Period is 33 days. This showed that more cash was being received from the Account receivables daily than payments being made to the Account payables, this situation they claimed guaranteed funds availability in a firm and safe liquidity position.

Ayako, Kingu & Guthim (2012), Akoto (2013), criticized this position, by asserting that companies who deliberately delay payments to account payables do not take the interest of their account payables into consideration.

Firstly, it shows that the firm is unable to meet its financial obligations as they fall due, secondly, that this would work adversely against the firm as they may not likely get credit facilities in future. Furthermore, that the original agreement reached between the firms and account payables may also have been breached and this position is not good for business and the creditors.

Firms entered into such agreements with Account payables to enjoy the credit facility, this delay and breach of agreement is therefore, not good for business now and in the future. They advocated that firms should stick to their agreements with the account payables at all times as a sign of good business attitude. This would give more confidence to stakeholders who would want to do business with the firm. Instead , firms should manage properly the other working capital elements that will result into safe liquidity position and be able to meet their short-term obligations as they fall due.

Empirical Review

Azubike & Madugba (2015), undertook a study of some firms listed in the Nigeria stock exchange for the period 2005 to 2008. They adopted multiple regression and ordinary least square methods. They discovered that there is significant effect of creditors' days outstanding and debtors' days outstanding on firms' financialperformance.

Nwankwo & Osho(2015), used a study of some manufacturing companies in the Nigeria stock exchange for the period 2004 to 2007, using correlation matrix and descriptive methods. They found that there is a significant and positive relationship between creditors' days outstanding and debtors' days outstanding and firms' financial performance.

Odi & Solomon(2015), undertook a study of some manufacturing firms in Nigeria stock exchange for the period 2005 to 2008, applying correlation matrixand ordinary least square methods. They found out that there is a significant and positive relationship between debtors' days outstanding, creditors' days outstanding and firms' financial performance.

Akinsulire (2015), discovered a significant and negative effect of creditors' days outstanding, debtors' days outstanding on firms' financial performance, when he undertook a study of some manufacturing companies listed in the Nigeria stock exchange for the period 1996 to 2000. He used the correlation matrix and ordinary least square methods.

Emeni & Uruakpa, (2013), in their study of some manufacturing firms in Nigeria stock exchange for the period 2003 to 2005, used ordinary least square and correlation matrix methods. They found out that there is a significant and positive relationship between debtors' days outstanding, creditors; days outstanding and firms' financial performance.

Uremadu, (2012), carried out a study of some firms listed in the Nigeria stock exchange for the period 2002 to 2005, he used the correlation matrix and descriptive statistics methods. He discovered a significant and negative relationship between creditors' days outstanding, debtors' days outstanding and firms' financial performance.

METHODOLOGY

Research Design

An ex-post – facto research design was adopted for this study. It involved the use of established variables which a researcher has no capacity to change, (Onwumere 2009). This study used secondary data, collected from annual reports and accounts of some selected quoted Nigeria manufacturing companies, in Nigeria Stock Exchange.

Nature and sources of data

Data used for this study are secondary in nature and gathered from the annual reports and accounts of some selected quoted manufacturing firms in the Nigeria Stock Exchange.

Sample size and Sampling Technique

In most cases it is not always practicable to take a complete and comprehensive study of the entire population because of the pattern of distribution of the elements and nature of the population. Therefore, we use samples to make it easy to estimate the population and get equitable representation of the characteristics in the entire population in the circumstance, Fathi (2009). .

Validation of the research Instrument

The external auditors of recognized accounting bodies that regulate the audit of quoted manufacturing companies in Nigeria Stock Exchange have audited the financial statements and accounts of these companies. Therefore, their financial statements and accounts are deemed to be valid instruments.

https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

Reliability of the Instruments

The source of the data used, secondary data were extracted from the audited financial statements of the quoted manufacturing companies, already certified by the external auditors and constantly available to the public. Therefore, the accuracy of the instruments is not in doubt in terms of consistency of outcome and reliability. In addition, the E – views 9 package used is a scientific one which gives precise result of figures unlike the manual analysis method.

Test of Hypotheses

HO_1: Average payment period/ Creditors' Days outstanding has no significant impact on the financial performance of Nigerian firms.

HO_2: Average collection period/ Debtors' Days outstanding does not have significant impact on the financial performance of Nigerian firms.

Table 4.1 Regression Result for the First Model

Model One

Dependent Variable: R0A

Method: Least Squares

Date: 06/24/18 Time: 22:06

Sample: 1 165

Included observations: 165

Variable	Coefficient	Std. Error	t-Statistic	Prob.
APP	-6.449724	10.09484	-0.638913	0.5238
ACP	0.037883	0.022198	1.706589	0.0299

R-squared	0.794884	Mean dependent var	0.315405
Adjusted R-squared	0.758987	S.D. dependent var	0.403412
S.E. of regression	0.369956	Akaike info criterion	0.896407
Sum squared resid	21.48824	Schwarz criterion	1.046999
Log likelihood	-65.95360	Hannan-Quinn criter.	0.957537
F-statistic	5.428988	Durbin-Watson stat	1.820379
Prob(F-statistic)	0.000014		

Source:Eviews9 Output (2018)

The above regression result in table 4.1 is obtained from the first model where we used the return on assets (ROA) to proxy firms' performance. The result shows that Average Payment Period has negative and insignificant effect on ROA (C= -6.45, P = 0.5238); Average Collection Period has positive and significant effect on ROA (C=0.038, P= 0.0299); The result shows that the independent variables are significant. The R-squared value of approximately 79% reveals the ability of the independent variables to account for 79% of the

systematic variations in the dependent variable, while the error term is responsible for the remaining 21%. The adjusted R-squared adjusted value of approximately 76% means that the model has a high predictive power, as the independent variables can predict about 76% of the changes in the dependent variable. There is absence of autocorrelation as revealed by the Durbin Watson statistics of 1.820379, while the F-statistics is slightly high at 5.428988 and the overall result is significant as revealed by the P-value of the F-statistics at 0.000014.

Table 4.2 Regression Result for the Second Model
Model Two

Dependent Variable: ROE
Method: Least Squares
Date: 06/24/18 Time: 22:11
Sample: 1 165
Included observations: 165

Variable	Coefficient	Std. Error	t-Statistic	Prob.
APP	5.066158	6.582889	0.769595	0.0427
ACP	-0.005066	0.014475	0.349953	0.7268

R-squared	0.725230	Mean dependent var	0.227710
Adjusted R-squared	0.706228	S.D. dependent var	0.252376
S.E. of regression	0.241250	Akaike info criterion	0.041305
Sum squared resid	9.137655	Schwarz criterion	0.191896
Log likelihood	4.592336	Hannan-Quinn criter.	0.102435
F-statistic	3.210826	Durbin-Watson stat	1.931212
Prob(F-statistic)	0.003305		

Source:Eviews9 Output (2018)

The above regression result in table 4.2 is obtained from the second model where we used the return on equity (ROE) to proxy firms' performance. The result shows that Average Payment Period has a positive and significant effect on ROE (C= 5.0662, P= 0.0427); Average Collection Period has a negative and insignificant effect on ROE (C= -0.0051, P=0.727): The R-squared value of approximately 73% reveals the ability of the independent variables to account for 73% of the systematic variations in the dependent variable, while the error term is responsible for the remaining 27%. The adjusted R-squared adjusted value of approximately 71% means that the model has a high predictive power, as the independent variables can predict about 71% of the changes in the dependent variable. There is absence of autocorrelation as revealed by the Durbin Watson statistics of 1.931212, while the F-statistics is high at 3.210826 and the overall result is significant as revealed by the P-value of the F-statistics at 0.003305.

https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

Table 4.3 Regression Result for the third Model

Model three

Dependent Variable: EPS
Method: Least Squares
Date: 06/24/18 Time: 22:14
Sample: 1 165
Included observations: 165

Variable	Coefficient	Std. Error	t-Statistic	Prob.
APP	-0.123109	1.627349	-0.075650	0.9398
ACP	0.012267	0.003578	3.428100	0.0008

R-squared	0.629725	Mean dependent var	0.268119
Adjusted R-squared	0.608757	S.D. dependent var	0.085091
S.E. of regression	0.059639	Akaike info criterion	-2.753738
Sum squared resid	0.558423	Schwarz criterion	-2.603146
Log likelihood	235.1834	Hannan-Quinn criter.	-2.692607
F-statistic	25.26388	Durbin-Watson stat	1.762994
Prob(F-statistic)	0.000000		

Source: Eviews 9 Output (2018)

The above regression result in table 4.3 is obtained from the third model where we used earnings per-share (EPS) to proxy firms' performance. The result shows that Average Payment Period has a negative and insignificant effect on EPS (C= -0.123, P= 0.9398); Average Collection Period has a positive and significant effect on EPS (C= O.0123, P= O.001). The result shows that the independent variables are significant. The R-squared value of approximately 63% reveals the ability of the independent variables to account for 63% of the systematic variations in the dependent variable, while the error term is responsible for the remaining 27%. The adjusted R-squared value of approximately 61% means that the model has a high predictive power, as the independent variables can predict about 61% of the changes in the dependent variable. There is absence of autocorrelation as revealed by the Durbin Watson statistics of 1.762994, while the F-statistics is high at 25.26388 and the overall result is significant as revealed by the P-value of the F-statistics at 0.00000.

Table 4.4 Regression Result for the fourthModel

Model four

Dependent Variable: ROS
Method: Least Squares
Date: 06/24/18 Time: 22:16
Sample: 1 165
Included observations: 165

Variable	Coefficient	Std. Error	t-Statistic	Prob.
APP	16.28525	16.74167	0.972737	0.3322
ACP	-0.045725	0.036814	-1.242078	0.2161

R-squared	0.731908	Mean dependent var	0.438221

https://dx.doi.org/10.26808/rs.rmf.v3i3.03
International Journal of Research in Management Fields ISSN (P) 2577-1876 (O) 2577-4274
Available online on http://rspublication.com/IJRMF/IJRMF.html Volume 3 Issue 3(May-June 2019)

Adjusted R-squared	0.711255	S.D. dependent var	0.610126
S.E. of regression	0.613550	Akaike info criterion	1.908159
Sum squared resid	59.10160	Schwarz criterion	2.058751
Log likelihood	-149.4231	Hannan-Quinn criter.	1.969290
F-statistic	0.739247	Durbin-Watson stat	1.967125
Prob(F-statistic)	0.009013		

Source: Eviews9 Output (2018)

The above regression result in table 4.4 is obtained from the fourth model where we used the return on sales (ROS) to proxy firms' performance. The result shows that Average payment period has a positive and significant effect on ROS (C= 16.29, P= 0.332); Average collection period has a negative and significant effect on ROS (C= -O.046, P= O.2161). The result shows that the independent variables are significant. The R-squared value of approximately 73% reveals the ability of the independent variables to account for 73% of the systematic variations in the dependent variable, while the error term is responsible for the remaining 27%. The adjusted R-squared adjusted value of approximately 71% means that the model has a high predictive power, as the independent variables can predict about 71% of the changes in the dependent variable. There is absence of autocorrelation as revealed by the Durbin Watson statistics of 1.967125, while the F-statistics is high at 0.739247 and the overall result is significant as revealed by the P-value of the F-statistics at 0.00913.

Discussion of Findings

Creditors' days/Average Payment Period and the Performance of Listed Firms

From the result obtained, it was revealed that the average payment period has a negative and insignificant effect on the financial performance of listed firms in Nigeria using (ROA) and (EPS}. Average payment period has a positive and significant effect on (ROE) and (ROS) in the second and fourth tables respectively. In business finance and management, a higher performing firm is expected to meet its obligations promptly, which indicates a sign of good and healthy financial liquidity position. However, this may not be the case of an under-performing firm with low liquidity level, as this will be accompanied by frequent delays in meeting financial obligations and hence, a longer average payment period. Nobane (2011) and Deelof (2003)..

Debtors'days/Average Collection Period and the Performance of Listed Firms

From the result obtained, it was revealed that average collection period has a positive and significant effect on the financial performance of firms in Nigeria. It has a positive and significant effect on (ROA)and (EPS) a negative and insignificant effect on (ROE) and a negative and significant effect on (ROS). There is need for firms to ensure a good and efficient average collection period. It is important to note that when debts are collected promptly, they result into increase in the company's liquidity which in turn increases the financial performance of the firm. When the average collection period is lengthy, this will lead to a very low level of financial liquidity and also increase the tendency of loss through bad and doubtful debts. This result is in agreement with findings of Eljelly (2016), Akinlo (2015), Chashmsayadam, Aghajan & Nashtaei (2014).

Conclusion

The study concludes that working capital management should always employ the right and appropriate mix of variables so as to achieve the firm's desired results.

Recommendation

The study recommends improvement on the appropriate mix of variables that will be current, tested and proved and be generally accepted by researchers and companies. Such variables should adequately take care of the interest of the beneficiaries in firms, like employees, investors, the public, management, government, Regulatory Bodies etc. Firms in Nigeria should always ensure that competent and professionally qualified financial managers are employed as financial managers to drive those policies/ techniques and maintain standards

Constant training.and re-training of financial managers on the latest techniques of working capital policies should be adopted to keep them abreast with global current best practices.

References

1. Aggarwal, J.D. (2013). A goal programming model for working capital management. Finance Journal India, 2(1), 16-25.
2. Akinlo, O.O. (2011), The effect of working capita! on profitability of firms in Nigeria: Evidence from General Method of Moments (GMMAsian Journal of Business and Management Sciences, 1(2), 130-135.).
3. Akinsulire, O, (2005), Financial Management, El- Toda Ventures, Lagos.
4. Angahar. P. & Alematu, A. (2014), Impact of Working Capital on the Profitability of the Nigerian Cement Industry, European Journal of Accounting, Auditing and Finance Research, 2(7), 17-30
5. Armstrong D. G. (2012). Effect of financial management. Palm Avenue, Mushin Ceemol Nigeria Publishers.
6. Atrill, P. (2016). Financial management for decision makers (4th Ed.). New Jersey: Prentice
7. Ayako, Kingu and Guthim (2012). Working capital management and profitability. A journal of business management and administration research 5(15) 180 – 190
8. Azubike, Madugba and Okpe (2015). Impact of corporate board meeting on financial performance: evidence from selected listed companies in Nigeria. International journal of economics and finance 12 E –ISSN 1916 – 9728.
9. Beaumount smith and Flerchar, (2016), Introduction to financial management (5th edition). New York NY. Western college publishing.
10. Chashrnsayadan, M., Aghajannashuiei, R. (2014), Evaluation the impact of working capital management 011 linns performance (Case study: Tehran stock exchange). Asian Journal of Research in Banking and Finance, 4(5), 27-42.
11. Dalayeen, (2013). Impact of social and technical analysis on working capital management process and performance. Vol. 50. No. 10 (65-70)
12. Deloof, (2003). Does Working Capital management affect profitability of Belgium firm. Dolfe, M, & Koritz, A., (1999). European cash management: a guide to best practice. 1st edition.
13. Emeni, F & Uruakpa, (2013). Working capital management and profitability of firms in Nigeria, Nigeria Academy of Management journal 7(2), 78-92.
14. Fathi. S.,& Tavakolli, Y. (2009), The relationship between working capital management and financial operation of the economic entities. Journal of Business Reviews. 36, U)4-1I6.
15. Firth, M. (2016). The Analysis of Working-Capital Positions by Outsiders. In M.J. Barron. D.W. Pearce (Eds.), Management of Working Capital (pp. 121-133). London and Basingstoke,
16. Forghani, M,, Shirazipour, M..& Hosseini, A. (2013). Impact of working capita! management or. firms performance. Journal of Basic and Applied Scientific Rest-arch, 3(7), 943-947.

17. Gitman, I L. (2015). "An Assessment of Corporate Cash Management Practice ".
18. Gitman, L. 1 (2016). Principles of Managerial finance (12th ed.). Bostos, MA: Pearson Prentice Hall. Gujarati, D. 2004, 'Basic econometrics' 4th ed McGraw—Hill Companies.
19. Guila, R. (2014), Effects of working capital management on firms profits-evidence from the pharmaceutical sector. International
20. Hansen, R., & Mowen, M. (2015). Management Accounting (7 Ed.). Singapore: South-Western.
21. Haq, I.U.L., Muhammad. S., Khalid, Z., &Zaheer, A. (2014) The relationship between working capital management and profitability; A case study of cement industry in Pakistan. Mediterranean Journal of Social Sciences, 2(2), 365-372.
22. Harrington, R., & Wilson, D. (2016). Corporate Financial Analysis. (3rd Ed.). Boston: Irwin Inc.
23. Harris. A. (2012). Working Capital Management: Difficult but Rewarding. Financial Executive Journal, 2 1(4), 52-53.
24. Horne and Wachowicz, (2000). Fundamentals of financial management, 11th ed. New York. Prentice hall, publication.
25. Horne, J.C., & Wachowicz, J.M. (2004), Fundamentals of FinancialManagement. 12* ed. New York: Prentice Hall Publishers.
26. Jelic, M., Briston, R., & Aussenegg, W. (2016). The Financial Performance of Privatized Firms: evidence from Three Transition Economies. Journal of Business Finance & Accounting, 7(4), 9-25.
27. John, J. Hampton. (2016), Financial Decision Making Concepts, problems and Cases 4th Edition Joshi, R. N (2000). Cash Management Perspective Principles and Practices, Newage, International
28. Kargar. J. & Blumenthal, R.A. (2015). Leverage Impact of Working Capital in Small Businesses. TMA Journal, 14(6), 46-53.
29. Lazaridis, L,& Tryfonisdis, D. (2006), Relationship between workingcapital management and profitability of listed companies in Athens stock exchange. A Journal of Financial Management and Analysis,19(11,26-35
30. Makori, D.M., & Jagongo, (2013). Working capital management andfirm profitability: Empirical evidence from manufacturing and construction firms listed on Nairobi securities exchange. Kenya.International Journal of Accounting and Taxation, 1(1)
31. Malik, M.S.,& Mahumad, B, (2014), The impact of working capitalmanagement on corporate performance: A study of firms in cement,chemical and engineering sectors of Pakistan. Pakistan Journal of Commerce and Social Sciences, 8(1), 134-148.
32. Mansuri, E..& Jonah, M, (2012), The effect of working capital management on firm's profitability: Evidence from Singapore. Interdisciplinary Journal of Contemporary Research in Business, 4. 472-486.
33. Mobeen, A.M., Ali, L., Abdu, R.,& Akram, M. (2011), Impact of workingcapital management on profitability and market valuation of Pakistanifirms. European Journal of Economics, Finance and AdministrativeSciences. 32, 48-54,
34. Naser and Mokhfar, (2016). An integrative approach to working capital management. Journal of cash management 102(35), 210 – 250.
35. Nazir, M.S. & Afza, T. (2007) Impact of aggressive working capitalmanagement policy on firms' profitability, 1UP Journal of AppliedFmance,15(8), 19-30.
36. Ngwenya, (2015), how sensitive are Japanese firms to earnings risk? Evidence from cash holdings.
37. Nigeria Stock Exchange Factbook (2014). Market Capitalization. Nigeria Stock Exchange, Retrieved August 12, 2016,. MARKCAP

38. Nigeria stock exchange factbook (2015), Market capitalization: Nigeria stock exchange, retrieved march 15th 2017 MARKCAP.
39. Nobanee, H., Abdul, L.M.,& Aslrtajjar, M. (2011), Cash conversioncycle and firm's performance of Japanese firms. Asian Review ofAccounting. 19(2), 147-156.
40. Nwankwo. O.,& Osho, G.S. (2015). An empirical analysis of corporate survival and growth in Nigeria. Evidence from efficient working capitalmanagement. International Journal of Scholarly AcademicIntellectual Diversity, 12(1), 1-13.
41. Odi. N.,& Solomon. O. (2015)An empirical analysis of corporate survivaland growth in Nigeria. Evidence: From Efficient Working Capital Management,22(1), 1-25.
42. Okaro. S., (2004). The impact of government policies on industrial development in Nigeria. The Nigerian Accountant, July/Sept. 2004, pp 20-24.
43. Oladipupo A. O and Okafor C.O, (2013). Relative contribution of working capital management to corporate profitability and dividend payout ratio. Evidence from Nigeria. International of business and finance research, 3(2), 11 - 20
44. Onwumere, J. U., Ibe, I. G., & Ugbam O. C. (2012). The impact of Working Capital Management on Profitability of Nigerian Firms: A Preliminary Investigation. European Journal of Business and management, 4(15), 192-201.
45. Padachi. K. (2009), Trends in working capital management and its impact on firms performance. An analysis of Mauritanian small firms. International Review of Business Research Papers. (2nd ed.).
46. Rafuse, M.E. (2016). Working Capital Management: An Urgent need to refocus. Journal of Management Decisions, 34(2), 59-63.
47. Raheman, A.,&Nasr, M. (2014) Working capital management andprofitability-case of Pakistani firms. International Review ofBusiness Research Papers, 3(I), 279-300.
48. Reason, (2016). Preparing your company for recession, CFO Magazine, available at: WWW.cfo.com./article.cfm/ 10600055 (accessed January 30, 2016)
49. Sack, K. (2016). Retailing: General Industry Suey. Standard and Poor's, New York
50. Sharma, A.K., &Kumar, S. (2011), Effect of working capital management on firm profitability. Empirical evidence from India. Global business Review 12(1), 159-173.
51. Smith, K. (2016). "Profitability versus Liquidity Tradeoffs in Working Capital Management. Readings on the Management of Working Capital. West Publishing Company, New York, St. Paul.
52. Taani, M.H. (2011), The effects of financial ratios, firms size and cash flows from operating activities on earning per share: (An Applied Study: On Jordanian Industrial Sector).International Journal of Social Science and Humanity Studies, 3, 197-205.
53. Tangen, S. (2015). An overview of frequently used performance measures. International .Journal of Productivity and Performance Management, 52(7), 347-354.
54. Uremadu, Egbide & Enyi (2012). Working capital management, liquidity and corporate profitability among quoted firms in Nigeria: evidence from the productive sector. International journal of Academic Research in Accounting, finance and management sciences, 2(1), 80 – 97.
55. Walter, G, Dingilizwe, J. &Runesu,C. (2014), Working Capital Management and the Profitability of Non-Financial Firms Listed on the Zimbabwe stock exchange, European Journal of Business and Economics, 9(2), 12-