THE IMPACT OF WORKING CAPITAL MANAGEMENT ON FINANCIAL PERFORMANCE OF NIGERIAN LISTED COMPANIES

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ABSTRACT

The aim of this study is to provide an empirical evidence on the impact of working capital management on financial performance of Nigerian listed companies focusing on non-financial companies. A panel data using 226 population for the study was obtained from the Nigerian stock exchange commission (NSEC) for the period of from 2006-2011. The pooled ordinary least square (OLS) and random effects was used for testing the hypotheses of this study. Therefore, the company need to give a specific attention to the variables such as account receivable period, account payable period, and inventory holding period to improve their performance and accordingly attract the investors' attention in making investment decision. Based on the finding of regression result, shows that all variables are positively significant with firm performance except account payable period. Whereas cash conversion cycle is insignificantly related to firm performance. Therefore, the finding on working capital management in Nigeria shows that firms should effectively manage and implement their working capital and standard credit policy in order to improve firm performance.

Keywords: Working capital management; firm financial performance.

ABSTRAK

Tujuan kajian ini adalah untuk memberikan bukti empirikal mengenai kesan pengurusan modal kerja terhadap prestasi kewangan syarikat tersenarai di Nigeria dengan memberikan tumpuan kepada syarikat bukan kewangan. Satu data panel yang menggunakan 226 populasi bagi kajian diperolehi daripada suruhanjaya bursa saham Nigeria (*Nigerian stock exchange commission*) (NSEC) bagi tempoh 2006-2011. Gabungan kuasa dua terkecil (pooled *ordinary least square*) (OLS) dan kesan rawak digunakan untuk menguji hipotesis kajian. Berdasarkan hal ini, syarikat perlu memberikan perhatian khusus kepada pemboleh ubah seperti tempoh akaun belum terima, tempoh akaun kena bayar, dan tempoh pegangan inventori untuk meningkatkan prestasi masing-masing bagi menarik perhatian pelabur dalam membuat keputusan pelaburan. Dapatan hasil regresi juga menunjukkan bahawa kesemua pemboleh ubah adalah signifikan secara positif dengan prestasi firma kecuali tempoh akaun kena bayar. Manakala kitaran tunai pula didapati tidak berkait secara signifikan dengan prestasi firma. Oleh itu, dapatan kajian ke atas pengurusan modal kerja di Nigeria menunjukkan bahawa syarikat perlu menguruskan dan melaksanakan modal kerja dan melaksanakan dasar kredit standard dalam usaha untuk meningkatkan prestasi firma .

Kata kunci: pengurusan modal kerja, prestasi kewangan firma

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WCM – working capital management

ARP – accounts receivable period

APP – accounts payable period

IHP – inventory holding period

CCC – cash conversion cycle

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial performance can be defined as how well a company can make a return. Therefore, financial performance is trying to identifies the company's weaknesses and strengths by comparing the relationship between the information of the balance sheet and Profit and Loss. Finance is described as central part of any business. Effective financial management is very essential for a business to expansion, growth, and survive. Furthermore, the corporate finance manager on the part of the decisions that concerns with resource allocation for the companies to stay afloat, this resource allocation have a great bearing on the firm's performance, market value, as well as the risk of the companies. The decision of financial management of some firms are related to three (3) key factors: Capital budgeting, Working Capital Management (WCM), and Capital structure. Upon all the key factors, the WCM is a special area of an enormous importance for each firm, because the management of working capital influences almost overall firm's financial performance and liquidity (Appuhami, 2008). A firm's financial performance is usually depending on the way its working capital has been maintained (Karadagli, 2012). Company must efficiently and effectively control its working capital. If it could not be able to handle its working capital, then this is perhaps may lead to not only decrease on financial performance but could possibly have great consequence in financial activities of the company. It is an issue of greater concern and value how can companies control their working capital in a way that would bring a great success to the firm. Therefore, the study of working capital also need to give an adequate attention due

to its important so as to ensure the business operations would function properly. There are six dangers of having inadequate working capital and these are:(1) difficult to undertake projects or business that is profitable to the company (2) difficult to operate and achieve the target profit (3) difficult to meet a day-to day commitments (4) inability for the company to plan and control their inventory effectively and efficiently (5) deterioration of company's profitability (6) and finally lost of reputation.

The working capital management has an influence on financial performance, because is more important when the competitions in the world erodes prices, margins are low; firms required cash to expand both internally and overseas, to invest in a new technology and products and also to settle down debt turning to working capital as a source cash represents a managerial tool. Therefore, there is no doubt, that a large number of firms have recognizes working capital management as a true competitive advantage in ensuring firms financial performance (Ching, Novazzi & Gerab, 2011). The working capital management is an important and the most vital financial decisions of a company. Well-organized level of working capital ought to have a smooth management of its business, despite the nature of the company. In order to handle working capital efficiently, companies have to be mindful on how long it take a company to transform inventories into sales and get back a return as argued by Falope and Ajilore (2009). The period of time spend is normally known as the cash conversion cycle. Therefore, high costs of production because of poor social amenities, the lack of infrastructure has been one of the major problem to the financial performance of many Nigerian companies. Logistics, power, and bad road has continued to constitute a rising portion of administration and

operational costs. (Ademola, 2011). Based on these challenges, performance of non-financial companies in Nigeria traces that of single product focused companies in Nigeria, available financial information for selected companies and single product focused companies in Nigeria suggests that companies have operated less efficiently than single product focused companies for over the last five years (Ademola, 2011).Therefore, this study attempts to discover the impact of Working Capital Management on financial performance on Nigerian quoted companies, also the factors that affects financial performance such as economic crisis from pre-economic crisis 2006 and post economic crisis of 2011. However, this situation has continuous becoming issues of concern, since the problem does not improve until 2008. Thus, the working capital management and financial performance have been a serious area for an important part of empirical research study for many years (Falope and Ajilore, 2009). Nigeria companies for long has experienced problem of working capital due to fact that Mambula (2002) has emphasized some of the problems in getting raw materials as one of the main drawback affecting the performance and growth on non-financial companies in Nigeria. This problem has continuous to affect the working capital of Nigeria companies ranging from lack of stable electricity, lack of access to good road system where businesses are located, and problem of insecurity in some part of the country.

The term economic crisis broadly applied to a variety of situations where financial assets suddenly lost large part of their nominal value. The global financial crisis of 2008-2009 which was started from United states of America bought many negative consequences to the global economy in general. The crisis began as an asset bubble created by many new

financial derivatives, with other issues which compounded the problems and drove the subprime loan (Krugman, 2009). Krugman further explained that the crisis later escalated in to banking and housing crisis that affected investment and consumers. The Nigerian economy felt that the global economic crisis in two main broad categories, foreign direct investment and export. Impacts on non-financial sector exports were the most noticeable Abidin and Rasiah (2009) Stated that electrical and electronics industry recorded a decrease of 31.7% during the first quarter of 2009 which is worse than during the last quarter of 2008 that stood at 20.5%. This was due to a decrease in the dominant export-oriented manufacturing industries together with weak support from the domestic market-oriented industries. Economic crisis occurs from time to time. Especially the one that occurs between 2007-2008 which affected financial performance of the Nigerian companies.

Ameedu (2010) Provide evidence that Nigerian companies have suffered from differences types of economic crisis such as speculative bubble, bank crisis and the international economic crisis. Like any other developing countries in the world, the Nigerian economic crisis causes serious shock to the economy which affected most of the Nigerian companies in terms of their financial performance, their profits margin has decreased over the period as well as their sales within this period. (Bundesbank, 2010, Griffith-Jones & Ocampo,2009, Leach-Kemon et al., 2012; Wagner & Winkler, 2013). After the implementation of the economic structural policy in 2007, there was a general panicking situation in the economy where a lot of people were rushing to withdraw their savings and deposits from Nigerian banks which also affected the Nigerians companies in

terms of bank borrowing, they were unable source for funds from the banks as such effected their financial performance. This panicking seriously affected banks and companies' culture, even liquidity preference become more pronounce in Nigeria instead of saving or depositing of cash in the bank (Amedu, 2010). Similarly, Onuorah (2010) believed that the panic withdrawals resulted in insufficient deposits to support the real sector such as Agricultural sectors that provides raw materials to the non- financial companies Nigeria.

1.2 Problem Statement

Financial performance is a catalyst for the development and economic growth in developing nation. Since, financial performance is paramount important to the growth, survival, and success of the companies. (Beck & Demirguc-kunt, 2006). Financial performance is the ultimate objective of every company and safeguarding the liquidity of the firms, which have a significant important and objectives to achieve. The problem of WCM is to accomplish some objectives under a period of operations, if revenue of the firm increases at the cost of liquidity and this could possibly lead to severe problem to the companies. Thus, to resolve the working capital problems, there should be a concession between the two goals of the companies. Single goal will never be achieved at the expense of other as both goals have their individual significance to companies. If companies didn't concern regarding working capital problem, they might possibly not last for a longer period. Conversely, if companies did not worry about the liquidity issues, the firm might face difficulties in bankruptcy or insolvency. Poor management of the working capital will end in cash flow problems painted by a company beyond its established overdraft boundary, when a company did not pay a creditor as when due, and

being incapable to maintain timely discount and payment. In the long run, a company with the problems of working capital would never be able to meet up its current responsibilities and will be forced to close down business even when the company is lucrative on paper.

Nigerian companies in their overall working capital started having problem in 2005 with the billions of Naira wasted unnecessary. This problem was continuous becoming an unbearable by an increase in day's working capital by about 40.56% (Wasiuzzaman & Arumugam 2013). Discovering optimal levels of stocks, receivables, as well as payables where total investment and opportunities cost are reducing and recalculating the cash conversion cycle according to these best possible points offer more absolute and precise insights into the effectiveness of WCM. The problem therefore is to regulate how the efficiency of working capital management relates to the firm's financial performance. Several scholars such as Deloof (2003), Lazaridis and Tryfonidis (2006), Lee, Song, and Lee (2009), Nobanee and AlHajjar (2009), and Raheman and Nasr (2007) are of the view that accounts payable days has an inversely relation with company financial performance.

With regard to relationship between inventory and conversion circle and firm financial performance, scholars such as Ali (2011), Gill, Biger and Mathur (2010), Padachi (2006), Rimo and Panbunyuen (2010), attest the positive relationship between inventory holding period and cash conversion cycle on financial performance. That is, an increase in inventory days would to increase in the profitability of the company, while as the account payable of the company is increasing the financial performance of the company is decrease. Similarly, regarding the association between CCC and firm's financial

performance several studies have provided empirical evidence that managers can improve firms' financial performance through efficient cash conversion cycle. However, lack of harmony among researchers regarding how each variable of working capital management affects financial performance, Lyroudi and Lazaridis (2000), Onwumere, Ibe and Ugbam (2012), Soekhoe (2012), and Leeper and Chambers (2013) claim that an increase in cash conversion cycle enhance company's financial performance. Equally, Deloof (2003), Lazaridis and Tryfonidis (2006), Garcia-Teruel and Martinez-Solano (2007), and Warnes (2013) showed that increasing in CCC leads to decreasing on financial performance of the companies.

Based on the above discussions, there is still lack of general agreement concerning the effect of WCM on company's financial performance. Again, in accordance with the researcher's knowledge, there is a missing empirical evidence on the impact of WCM on company's financial performance in the context of Nigerian quoted companies. These twin concerns are the motivating factors for this study. This study therefore, is an effort to seal this gap by examining the relationship between WCM and financial Performance using sample of Nigerian companies from the Nigerian capital market covering 2006 to 2011, this will extend the finding from previous work to build on the studies of Wasiuzzaman and Arumugam (2013), Mohammad and Elias (2013).

1.3 Research Objectives

This research work is being undertaken by the researcher with the following objectives in mind, research studies are to evaluate the effect of the components of WCM, on financial performance of Nigerian quoted companies. The specific objectives are:

i. To examine the effect of inventory holding period on financial performance of the Nigerian listed companies.

ii. To examine the effect of outstanding account receivables on the financial performance of the Nigerian listed companies.

iii. To examine the effect of outstanding account payables on financial performance of the Nigerian listed companies.

iv. To examine the impact of overall cash conversion cycle on financial performance of Nigerian listed companies.

1.4 Research Questions

i. Do the firms' inventory holding period affects the financial performance of the Nigerian listed companies?

ii. Do the firms' outstanding account receivables affect the financial performance of the Nigerian listed companies?

iii. Do the firms' outstanding account payables affect the financial performance of the Nigerian listed companies?

iv. Do the firms' overall cash conversion cycle affect the financial performance of the Nigerian listed companies?

1.5 Significance of the Study

The rationale for this research study is very important in different ways. Firstly, its add more value to the existing literature in the area of WCM and financial performance. This is because, the survival growth and development of a firm depend on their profitability. Also, the effect of working capital components, on financial performance will help the firm's management towards achieving result with those components in working capital so

as to maximize shareholders' funds. Secondly the research study may serve as a reference point to students and other researchers who may wish to undertake a research study in similar topic. That is, group of persons would benefit immensely from this work because it will serve as a foundation on which further research studies on this topic could be built upon. Thirdly, non-financial and financial company can use this finding of this research to make a strategic plan in order to enhance their business activities. Fourthly, the policy makers and regulators can as well use this research study to monitor and control their financial performance with proper planning. Finally, this piece of work would be helpful source of knowledge for persons who want to be familiar with the basic knowledge of WCM on financial performance.

1.6 Scope of the Study

The study focuses on the relationship between WCM and the financial performance of Nigerian listed firms. This research study clearly reflects the relationship between working capital management components (Inventories, Receivables, Payables and cash conversion cycle) on financial performance (Return on Asset (ROA) as a Profitability Proxy. The study covers six-year period 2006 to 2011. The period is considered adequate in making a justifiable conclusion. This is in consistent with Charitou, Elfani, and Lois (2012), Karadagli (2012), Takon (2013), Shah and Chaudhry (2013), and Panigrahi (2013).

1.7 Organization of the Study

The study is organized into five chapters. Introduction, the background of the study. The chapter also contains the problems statements, objectives of the study, research questions, significance of the study, and scope of the study. Chapter two focuses on the related

literature review and empirical suggestions on working capital management relating to financial performance and other related evidences. Chapter three will discuss research methodology to be applied to ascertain the effect of working capital components and financial performance; theoretical framework which underpin the research, model specification and description of variable, source of data and method of analysis. Chapter four will cover the empirical results and findings of the various statistical analyses of the study. Finally, the last chapter will summarize the analyses and give the concluding remarks and proposal for future research.

1.8 Conclusion

This chapter have discussed the introduction, background of the study, problems statement. Also in this chapter, research objectives, research questions, significance of the study, scope of study and organization of the study were also discussed. The chapter come to an end with the organization of the study and conclusion.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, effort was made by the researcher to give a perception on corporate finance literature, it was examined that there is no generally or strong acceptable theory that explain the working capital management (Nakamura & Palombini, 2012). Possibly, the Pecking Order Theory is the nearest or relevant theory associated with working capital management propounded by Myers and Majluf (1984) which describe the internal and external factors that affect company's optimal capital structure.

2.2 Pecking Order Theory

The Pecking Order Theory (POT) by Myers (1984) state that the firms prefer to use internal financing than external financing and where external financing become necessary, they prefer to choose debt than equity. This means that the organization have a choice between issuing debt and issuing equity, but the organization they preferred to issue debt than equity.

The pecking order theory occurs because of asymmetric information, because managers often have some information from the well-being of their companies which external investors do not acquire. The asymmetry information and costs of transaction were the major obstacles that affects financial performance in accessing external funds. Asymmetric information arises because of lack of business plan, good accounting records problem, the transaction costs makes firms to face low or non-profitable business due to scarce resource in lending (Beck & Demirguc-Kunt, 2006). Insufficient information was

the major challenges of firms' financial performance which cause a low growth of business expansion, and also affect the turnover of the company (Abor & Quartey, 2010). The owners of the company are the shareholders of the business that distributes part of their equity to external which might increase their capital for investment and enhance performance. Therefore, the organization choose to use their available capital rather than seeking external funds. Consequently, insufficient capital usually leads to business problem, especially to firm financial performance capital investments are difficult to finance under long-term debt because of the problem of adequate information and financial behaviors. Due to this motive, the pecking order theory was usually attributed to firm financial performance due to their preference in using debt financing. This theory was predicting in hierarchical order in a company policy.

The company starts with the sources of financing that are least affected by the transaction cost, as well as less risky. Thus, the most liquid financing is retained earnings, follow by short-term debt due to its low risk, and the long-term debt have a higher risk, and the last one is issuing new capital through equity (Frank & Goyal, 2003). This theory is usually practice following a short-term change that is, the relationship between change in firms' level of leverage and the need for additional funds for business. Based on this hypothesis, a change in the debt percentage could not drive the need to achieve a targeted debt, instead is influence by the requirement of external financing for investment. This mean that, profitable business may exist while external capital is insufficient.

2.3 Working Capital Management and Financial Performance

Different definitions have been attempted by various scholars regarding Working Capital Management. For example, Akinsulire (2011), defined working capital as "those items that are essential for the day-to-day production of goods to be sold by a company." Similarly, Duman and Sawathanon (2009) refer to working capital as the company's current assets exceed its current liabilities. They further posited that current assets include cash, account receivables, inventories, market securities and prepaid expenses; whereas current liabilities contain short-term debt, account payable, accrued liabilities and other debts. As believed by Gardner (2004) working capital establishes when company's capability to meet up its immediate commitments by means of current assets as opposite to on loan funds.

According to Ramiah et al. (2014) prior studies conducted on working capital management resolve approximately discussed two main issues and these are:

1. The relationship between WCM and financial performance (Afrifa, et al., 2015, padachi, 2006, serrasquiro and Nunes, 2008, padachi and Howorth, Bonos-Caballero et al., 2010).
2. The determinants of WCM (Abbadi and Abbadi, 2013, Mansoori and Muhammed, 2012; saraani and Shahada, 2012).

The study of Afrifa (2013) explained that the level of experience of a financial manager's that managed WCM decisions expressively improve performance of a firm. Chowdhury and Amin (2007) which studies the Bangladesh Pharmaceutical companies and found a positive association between WCM and profitability by applying regression analysis and

cross-sectional method on a listed company sample of 88 on New York stock exchange (NYSE) and American manufacturing industries from 2005-2007. They found CCC and IHP are positive related to profitability, while APP and ARP were found to be significant and negatively associated with profitability. Additionally, they suggested that the number of days for accounts receivable would decrease in order to maximize shareholder's wealth. Based on the findings the higher the CCC the more the firm's financial performance. (Folope and Ajilore (2009) using panel data regression on a sample of 50 listed companies on the Nigeria stock exchange (NSE), for the period from 1996-2006, which study the association between WCM and financial performance. They used return on assets (ROA) as a proxy variable on profitability, and this result indicates a negative relationship between ROA with IHP, ARP and CCC. They interpreted the negative coefficient of the IHP to mean that as shorter inventory is tight; the higher amount of cash available for working capital investment may result to higher firm financial performance. The relationship between ARP and profitability, that is, rigid or restrictive credit policy would enhance firm financial performance. Once more, the negative coefficient of CCC is interpreted that minimizing CCC improves firm's profitability. Similarly, a positive relationship between APP and profitability was discovered, and interpret the result that the longer the period companies' delays in payment of trade creditors would provide higher amount of working capital reserves and this could use for investment activities to increase profitability.

Lazaridis and Tryfonidis (2006) examined the association between WCM and firm financial performance using a sample of 131 listed firms on the Athens Stock Exchange

over the period of four (4) years from 2001-2004 employing using gross operating profit (GOP) and a pooled regression analysis as a proxy of profitability. ARP has a negative association with profitability, and the result is interpreted that the manager can improve the firm financial performance by decreasing the number of days in trade receivables. Similarly, they proposed the companies with less profit could take opportunity of negative association between APP and firm financial performance in increasing profit, that is, the grace of time approved by their suppliers to repay their bills. The negative coefficient of the CCC, they preserved that a shorter cash conversion cycle will create extra profits for the business.

The study of Raheman and Nasr (2007) using a six years' period from 1999-2004 on a sample of 94 Pakistani quoted firms, indicates a negative association between all the WCM components and profitability of the firms. The firm size would have a positive association with the firm financial performance, while debt and firm financial performance has a significant negative relationship. In the same manner, Padachi (2006) examined the impact of WCM and profitability a sample of 58 manufacturing SMEs in Mauritia over the period of six years between 1999-2004. Using the dependent variable, the return of asset as a measurement of profitability, he emphasized that high investment in stocks and account receivable has a connation with decrease in firm financial performance. Similarly, the study of Padachi, et al. (2010) on a sample of 101 manufacturing SMEs in Mauritia for period of six years covering the accounting year 1998-2003, the result of regression analysis discovered that high inventories and accounts receivable resulted to decrease in company's financial performance.

Deloof (2003) studied on a sample of 1,009 large non- financial firms in Belgium for the period from 1992-1996, using Ordinary Least Square (OLS), and Fixed Effect (FE). This result indicates that all the component of WCM are found to have significant relationship with financial performance. He applied gross operating income as a proxy of profitability, while the WCM is measured by CCC. He also found that gross operating income has a significantly negative relationship with the inventories, accounts payable and accounts receivable of Belgian companies. He concluded that managers could enhance financial performance of the company by decreasing inventory period.

The interpretations on the negative coefficient of other variables that accounts receivable means consumers need additional time to assess products quality which they bought from the companies even though it causes lower profitability, while the APP meaning that less profitable companies extend longer days before paying suppliers. Additionally, a study by Nobanee and Alhajjar (2009) on a panel data sample of 2123 Japanese non-financial listed companies on the Tokyo stock Exchange from 1990-2004. Their result indicates a negative association between firm financial performance and all the components of WCM apart from the APP which is positive. Also, firm's profitability can be increase by decreasing the IHP and as well shortening CCC as equally proposed by Deloof (2003).

They also interpreted the positive relation between APP and ROI this mean that where a firm delay longer to pay for their suppliers, it will have a good opportunity for investing available cash and consequently higher profitability. The study of Garcia-Teruel and Marttinez-Solano (2007) on the data sample of 8872 SMEs from 1996-2002, using ROA

as a measurement of financial performance, this result indicates a significant statistically negative association between APP, ARP, IHP and CCC and the company's profitability. They assert that the profitability of a company can be improve by reducing days in IHP, days customers take to repay the firm and the days that the firm pays its suppliers. Mohammad and Saad (2010) examined the effect of WCM on the performance of Nigeria big firm using data of 172 listed companies from 2003-2007. Financial performance was used as a measurement of corporate finance performance. The result shows that the variables are negative and significantly related with performance of a companies.

Zariyawati el al. (2009) using a penal data of 1628 listed companies in Bursa Malaysia to investigate the corporate finance performance of six different economic sectors for the period from 1996-2006. The result indicates a strong negative and significant association between CCC and company's profitability. The results propose that shortening CCC results to improve profitability. Consequently, in an attempt to increase shareholder's wealth, some financial managers must use a derive strategies to decrease CCC to the higher level.

Afterward, Wasiuzzaman (2015) using a sample of 160 from 2005-2010 a big manufacturing company in Malaysia, examines the impact of WCM on financial performance and uses the ordinary least square (OLS) regression techniques. This results presented that the components WCM have a negative impact on profitability with the exemption of the APP which has a positive association with profitability. Similarly, Sharma and Kumar (2011) using a sample of 263 non-financial listed firms in India from

2002-2008, OLS multiple regression was applied to investigate the data. They found WCM components and financial performance would have a positive relationship, but CCC and ROA were insignificant statistically. The findings also indicate that APP and ARP have positive and negative relation with financial performance respectively. They explained that CCC coefficient increasing and can as well increase profit of the company.

Samiloglu and Demirgunes (2008) examined the impact of WCM on company's performance using the listed firms for the period from 1998-2007. Their findings indicate that IHP, ARP and leverage affect the company's financial performance negatively. However, the growth of sale affects profitability positively. Mathuva (2010) this result from this analysis shows that financial leverage has a negative relationship with profitability, but a positive connection between firm size, company age, and profit. Padachi (2006) found firm size, working capital efficiency, and growth working capital are related with performance positively. Similarly, short-term financing and leverage shows a negative relationship with financial performance. Mohamad and Saad (2010) found a positive association between profitability and debt.

2.4 Components of Working Capital Management

Achieving optimum working capital there is need to have a good management system of its components. Nevertheless, the management of each component comes with its costs and benefits. Therefore, the association between WCM, and firm's financial performance are as discussed below.

2.4.1 Accounts Receivable Period (ARP)

This ARP is the average number of period that the company could receive payment from the customers arising from credit sales. The main reason of ARP is to control the time period between credit sales given to customers and the period when the payment is received. This ARP effects the firm's decisions on credit policy due to the nature of the competition of the business environment which compelled firms to offer credit sales to customers (Brigham & Daves, 2004). Since, the goal or objective for complying with credit sales is to expand sales but this could lead to loss from bad debt potentially. Even though, a strong policy of credit sales may decrease and bad debt possibility, the decrease in sales may occur (Wasiuzzaman & Arumugam, 2013).

A positive relationship between ARP and profitability was found by Nobanee (2009), Raheman et al. (2010); Abuzayed (2012). While several research studies had reported negative association between ARP and profitability (See Raheman et al. 2007); Mathuva (2010); Falope & Ajilore (2009), Lazaridis & Tyrfonidis (2006); Sen & Oruc, (2009); Garcia-Teruel & Martinez-Solano, 2007; Deloof, 2003; Gill et, al., 2010; and Padachi (2006). The negative association between ARP and firm financial performance was interpreted that the higher the number of period the firm takes to receive debtor's sales unsettle the shorter the profitability (Falope & Ajilore, 2009; Deloof, 2003). Deloof (2003) stated that the negative association would be done when a customer embarks on assessment of product quality bought from the firm, as such, the profit would be decrease. Therefore, decreasing the ARP would enhance the company's activities.

2.4.2 Accounts Payable Period (APP)

The APP explained the average number of period that a firm is anticipating to pay suppliers their debt but the account remains outstanding for payment. Most the big and small company normally regards the amounts of money unsettle to creditors as a means of short-term credit free. The higher the amount held in APP, the higher the total amount of cash used by the company on it activities (Falope & Ajilore, 2009). The trade credit period helps to decrease in transaction cost, therefore, enhancing performance of the company. As stated by (Pike and Cheng, 2001) that the APP can improve performance of the company with association of using money to manage financial problems. Garcia-Teruel and Martinez-Solano (2010) argued that the APP is another form of short-term financing, firms used it to finance a certain proportion of their current assets. Usually as the size of the firm expand it help to bring higher performance in APP.

As stated earlier by Falope and Ajilore (2009) that small companies normally depend on trade credits. A positive relationship between APP and profitability was found by Raheman et al. (2010); Gill, et al., 2010; Sen & Oruc, (2009); Falope & Ajilore (2009); Mathuva (2010); Abuzayed (2012). While studies of Raheman et al. (2007) reported the negative association between APP and profitability (2007); Nobanee (2009) Lazaridis & Tyrfonidis (2006); Deloof, 2003; and Padachi (2006). The negative relationship between APP and firm financial performance, that the longer the period that the firm take to pay its suppliers the shorter the profitability and that the company would reduce profitability to longer days before the company pay bills to creditors (Deloof, 2003). While for the positive relationship, the longer the company stays to pay trade creditors the higher the

amount of money readily available use to improve performance of the company to make profit. (Falope & Ajilore, 2009).

2.4.3 Inventory Holding Period (IHP)

This IHP explained the total amount of stock held by the company over a period of time. IHP that is, the period of time under which a firm changes raw-materials, into finished goods readily available for sale. Inventories comprises of work in progress, finished goods and raw materials Mathuva (2010) describes inventory as the common largest assets used by manufacturing company. The inventory holding period is explained as a time period that takes a company to convert their inventory into sales. The main reason of managing inventory is reducing the cost of inventory holding lacking of any disruption in the production processes (Falope & Ajilore, 2009).

A corporate manager would control an optimum inventory so as to meet the demand customers and to safeguard inventory holding period unnecessary (Afrifa et al, 2015). Efficient management inventory is by ensuring that there are adequate inventories for possible operations while carrying and ordering costs are put to the possible minimum amount (Brigham & Daves, 2004). IHP assists a manager to control risk of 'stock- outs' and periodic sales which help to improve customers demand as well as decreasing carrying and ordering costs. The research studies of Raheman et al. (2007); Raheman et al. (2010); Deloof, 2003; Lazaridis & Tyrfonidis (2006); Falope & Ajilore (2009); and Sen & Oruc, (2009) found negative relationship between IHP and profitability. The studies of by Gill, et, al. (2010); Nobanee (2009); and Padachi (2006); Mathuva (2010) and Abuzayed (2012) found a positive relationship between IHP and profitability. The

negative coefficient shows that reduction in number of period that takes a firm to dispose inventories decreases profitability Falope & Ajilore (2009).

2.4.4 Cash Conversion Cycle (CCC)

The CCC could be used to measure the WCM efficiency as used in difference research studies (Deloof, 2003). The CCC is cash inflow that measures the period of time it takes a firm to transform inventory into sales and get back cash Falope and Ajilore (2009). Similarly, the CCC measures the time period that cash change into inventories before the stocks is dispose and cash collection from customers. A firm with short CCC can increase performance since the company do not over depend on external finance (Autukaite & Molay, 2011). It is instructive to know that corporate managers should shorten the CCC to realize more revenue for the firm.

The present research studies found a negative association between CCC and financial performance (See Raheman et al. 2007); Raheman et al. (2010); Lazaridis & Tyrfonidis (2006); Deloof, 2003; Sen & Oruc, (2009); Mathuva (2010) Abuzayed (2012); Zariyawati et al. (2009); Samiloglu & Demirgunes (2008); Falope & Ajilore (2009); Garcia-Teruel & Martinez-Solano (2007) and Nobanee et al. (2009). Whereas the studies found positive association between CCC and firm financial performance are Gill et al. (2010); Nobanee (2009) and Afeef (2011). The relationship of the negative coefficient disclosed that a shorter CCC will improve performance of any company's profitability Falope and Ajilore (2009).

The WCM will have a most important impact on the financial performance of the firm. (Deloof, 2003). Similarly, Teigen (2001) Describe cash management as a branch of

treasury management, which is described as a part of the key responsibilities of an important finance management team. The precise tasks of a typical treasury function are insurance management, risk management, cash and hedging management, Accounts Receivable Management, Accounts Payable Management as well as Bank Relations. Therefore, this explanation is in line with the (Owolabi & Alu, 2012). Classification of cash management areas (but risk management is not included). According to them the responsibilities of cash management can be separated into cash mobilization and concentration, cash gathering, banking system design decision process, and Cash balance management.

In their specification of the notion "cash balance management" may comprises of Short-term borrowing, Management of cash position, Cash forecasting and short-term investment. In this situation, the management of the company's cash position may include controlling cash disbursement, improving cash flow, transferring funds, and managing accounts receivable.

The concept of cash-to-cash is a basic financial concept. Numerous definitions of C2 C cycle (which is synonymous with CCC) have been in earlier studies. Moss and Stine (1993) as citied in (Attari & Raza 2012) defined Cash Conversion Cycle as "days between account payable and accounts receivable". Gallinger (1997) as citied in (Churchill & Mullin, 2001) put it somewhat differently; "the cash conversion system measures the number of days the firm's operating cycle requires costly financing to support it". Operating cycle can be thought of as the numbers of days of sales are

invested in inventories and receivables. Churchill and Mullin (2001) put at another way as; "the length of time, company cash is tied up in working capital before the money is finally returned when customers pay for the products sold or services rendered".

The cash-to-cash is establishing the period of time needed by the company to convert resources in to cash. Evaluating the interrelated cash inflow-outflow pattern underlying a more complete approach to liquidity analysis needs an additional or more complete approach, the liquidity analysis requires an additional flow indicator of current liabilities, which is account payable created by short term delay of these operating expenditures. Cash Conversion cycle is a unique financial performance metric that indicates how a company is managing their capital across the supply chain. Admittedly, these definitions ignore depreciation and places income taxes within operating expenses. Hence, the components of Cash Conversion cycle are inventory turnover days plus accounts receivable days' minus accounts payable days (Gardner, 2004).

2.5 Previous work related to Working Capital Management on financial performance

In Nigeria, the study of Oyeyinka, *et al* (1996) highlighted poor and delay in remittances from the debtors of non-financial companies as one key problem responsible for the decrease in in firm financial performance and overall survival of non-financial sectors particularly in Nigeria. This therefore suggests that the average collection period which is an integral part of working capital management is affected. When debtors do not pay back promptly and the average collection period is too long, then the company

experiences cash crunch and the turnover rate is tied down, this ultimately affects a company's financial performance and may even lead to folding up. Non-financial sector plays an important role in a modern economy and has many dynamic benefits crucial for economic transformation. It is a path for increasing productivity relating to replacement of import and expansion of export, creating foreign exchange earning capacity and raising employment and per capita income (Oyeyinka, *et al*, 1996). Moreover, in a typical non-finacial company more than half of the assets comprised of the short-term assets (Van Horne & Wachowics, 2004).

However, considering the population of Nigeria, which was estimated at approximately 200 million people based on 2011 World Bank estimate which ranked the country as the most populous African nation, as well as the size of the economy which is third in Africa, after South Africa and Egypt as well as the largest economy in West Africa. Therefore, the selection of Nigeria as the environment of this study is considered critical, in addition, to the financial performance is considered as an important element as a dimension of company's profitability.

Lord Keynes remarked that "profit is the engine that derives all businesses". It is an indicator of company's sustainability and quite essential for expansion. In view of that, the current study focuses on financial performance in order to measure the impact of the management of working capital could have on it, in the context of Nigerian non-financial companies listed on the stock exchange. Many studies have measured the impact of working capital management on profitability namely: Deloof (2003), Afza and Nazir

(2007), Shin and Soenen (1998), and others. Working capital management as highlighted in the background of this study is considered vital as it directly influences the liquidity and profitability of firms. It is also considered as the life-giving force for any economic unit hence its management is considered very vital. Based on the above antecedents, the current study is considered as not only significant but timely.

The Nigerian non-financial companies are facing serious drawbacks as evidenced by Soderbom and Teal (2011). Based on the report on Nigerian Non-Financial Enterprises Survey (NNES) fielded on August and September, 2011 by the United Nations Industrial Development Organization and Center for the Study of African Economies, of the Department of Economics, University of Oxford. The report concluded by proposing an increase in the firm level efficiency as a key to reversing the poor performance of the Nigeria's non-financial sector. Furthermore, according to the policy guideline and program of the federal republic of Nigeria (2011), the total productivity from the non-financial sectors as evidenced from the manufacturers association of Nigeria has continued to decrease. The operational difficulties arising from handling of raw materials, poor liquidity position, and excessive debt burden are identified as some of the major impediments. These problems have to some extent directly affects components of working capital management such as the receivables and inventory and by extension affected the financial performance of Nigerian non-financial companies on the stock exchange.

However, few studies have attempted to investigate working capital management and financial performance in Nigeria. For example, the study of Falope and Ajilore (2009) studied this relationship using panel data analysis for selected 50 listed firms in Nigeria. The study's choice of the sample could not be identified, as there was no systematic way which indicated how the sample was chosen and what industry is represented, as the companies cut across service, non-financial and manufacturing sectors. Another study by Uremadu and Egbide (2012) which studied liquidity and corporate profitability among listed companies in Nigeria only focused on the liquidity and did not categorically link the findings to the specific research problem.

Quayyum (2012) surveys the relationship between Working Capital Management and Profitability in Context of Manufacturing Industries in Bangladesh covering a time period of 2005 to 2009, utilizing multiple regressions presents that with exception of food industry all other selected industries have a significant level of relationship between the Profitability Indices and various Working Capital Components. For the non-financial companies, inventory turnover period and Cash Conversion cycle have a negative relationship with return on asset. The result clearly states that the shorter Cash Conversion cycle, the more profitable the firm is likely to be.

The firms should also put much importance on their receivables management and payables management to derive the best out of their Profitability. More recently, Samson, Josiah, Yemisi, and Erekpitan (2012) examined the impact of WCM on firm financial performance of 30 sampled Nigerian small and medium sized firms covering the year

2009. Using multiple regression analysis, the results suggest that managers can create value by increasing their firms' inventories and receivables turnover. Similarly, a shorter Cash Conversion cycle improves the firm's Profitability. Uremadu, Egbide, and Enyi (2012) presented empirical evidence of the impact of Working Capital Management and liquidity on corporate financial performance of listed companies in Nigeria Evidence from the Productive Sector using a cross-sectional time series data for the period 2005-2006, using descriptive statistics and OLS methodology.

2.6 Chapter Summary and Conclusions

Based on the findings stated above, it is clear that there are significant results between components of working capital management and financial performance in both financial and non-financial companies. The results from these studies are varied across the worlds due to the differences of the samples, methodology and also the variables used in previous studies.

Therefore, the intention of this research study is to fill the silence position in the literature, in view of the issues discussed in the problem statement. According to the researcher's knowledge, it was observed from the prior studies that hardly any study has been carried out that examine the impact of working capital on financial performance of Nigerian listed companies especially non-financial companies in Nigeria. Furthermore, this issues, findings and contributions from prior empirical studies conducted by several researchers on working capital management focusing on different environment, sectors, and other perspectives. Because in Nigerian context, only fewer researchers focuses on financial performance that measured ROA in some of the previous research conducted in

Nigeria. This has prompted this researcher to cover this area which could assist in developing the methodology for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The primary objective of this study is to examine the impact of WCM on financial performance of the Nigerian listed companies. This chapter presents the steps taken to simplify in achieving the research objectives. These steps are comprising of research design, research framework, hypothesis development, data collection and sampling procedure, data analysis and techniques. The descriptive statistics is merely to summarize a data rather than being used to test the hypothesis. Finally, quantitative techniques were also clarified for this study.

3.2 Data sources, Population and Sampling

The study uses quantitative data extracted from annual financial reports of companies in non-financial sectors. The data was collected from the Nigeria Stock Exchange Commission (NSEC) it serving as a Centre for regulation, and corporate information, and development of Nigerian companies. The data contained financial information of 20 companies, and the number of unbalanced panel data observations is 226 in this study over the period of six years from 2006-2011. In order to arrive at the sample size, the financial statements of the companies are examined to eliminate firms with negative values in their current assets and current liabilities components. The period of this study was chosen in line with the argument by (Wasiuzzaman & Arumugam 2013) who argued that the working capital management of Nigeria become worsen from the year 2005. The final sample as of 2011 is in consistent with oyeyinka, et al, 1996). Suggested that

Nigerian have seen improved due to the intervention of the Nigerian government in order to make the market more reliable.

3.3 Dependent Variables

The dependent variable used for this study is financial performance. Financial performance measures the efficiency of changing equipment and current assets into revenue (Kamal & Zulkifli, 2004). In this study, return on Assets (ROA) is used as a measurement of financial performance as Falope and Ajilore (2009), Sen and Oruc (2009), Uyar (2009), Zariyawati, M. A., Annuar, M. N., Taufiq, H., & Rahim, A. A. (2009, Mohammad and Saad (2010), and Abuzayed (2012) implemented. ROA is chosen because is the most important measurement of financial performance since it indicates the real financial conditions of firms.

The financial performance could be measured by using return on asset (ROA) which is measured as net income divided by total assets. Different research studies had used ROA as dimension of firm financial performance. Therefore, some researchers used ROA rather than ROE, this is because its only focus on operating efficiency and they want to prevent capital structure differences (Jose, Lancaster, & Stevens, 1996). The ROA is a better measurement of financial performance because it relates to company's profitability (Padachi, 2007).

3.4 Independent Variables

This study examines the impact of working capital management on financial performance using sample of Nigerian listed non-financial companies'. The components of working capital management examined includes accounts receivable period, accounts payable

period, inventory holding period, and cash conversation cycle, which are operationalize as follows:

3.4.1 Accounts Receivables Period

The accounts receivables period refers to the number of days in which a company takes to collect cash from customers on credit sales. Companies seek to achieve an optimum accounts receivable period to improve profitability. The period between the credit sales and payment from customers is very essential to the firm's performance. In this study, the accounts receivable period will be measure as accounts receivable divided by net sales multiply by 365 days. Falope and Ajilore (2009).

3.4.2 Accounts Payable Period

Accounts payable period refers to the number of days in which the company delayed to pay its trade creditors. The accounts payable provides short-term funds for the company and leads to reduction in transaction cost arising from external financing, thus increasing company's profitability. Subramanyam (2009) states that large portion of companies' current assets are mostly finance through its current liabilities. Accounts payable period will be measure as accounts payable divided by purchases by 365 days.

3.4.3 Inventory holding Period

The inventory holding period is very essentially, the period through which companies invest cash for material and converts the materials into sales. The objective of inventory management is to lower the cost of inventory holding period without any interruption in the production processes. An inventory holding consists of raw materials, work in progress and finished goods. Inventory holding period will be measure in this study as stock divided by cost of goods sold multiply by 365 days Mathuva (2010).

3.4.4 Cash Conversion Cycle

The cash conversion cycle is a cash flow analysis that measures the period of time it takes a firm to convert its stocks and other resources into cash. In other words, the cash conversion cycle measures how long cash tied up in inventory before the inventory is sold and cash collection from customers to the time when the suppliers are paid. In this study, the cash conversion cycle will be measure as accounts receivable period plus inventory holding period minus accounts payable period Deloof, (2003).

Leverage of the non-financial companies uses long-term financing despite the financial constraints facing the companies based on the pecking order hypothesis (POH). External financing is costlier than internal financing. Therefore, a firm with high leverage ratio will give additional attention to its working capital which was held in the operating cycle invested in viable opportunities (Nazir & Nazir, M. S., and Afza, T. (2009). Since some companies are likely to use external financing, this study examined the impact of leverage on dependent variable as control variable on financial performance of Nigerian listed non-financial companies. In this study, leverage will be measure as total debt divided by total assets. Raheman and Nasr (2007). Similarly, firm size is observed as one of the important control variable to describe the financial performance of a company (Serrasqueiro & Nunes, 2008).

The ability of larger company to expand different strategies in commercial areas increases their financial performance and this make them to become less vulnerable to failure (Yang & Chen, 2009). Beaver and Prince (2004) summited that in terms of

invention capacity, listed firms appear to be more favorable than small businesses because small firms have informal structure as such they might be exposed to numerous challenges to rapidly respond to their customers' requirements. Hereafter, it might decrease their financial performance. Serrasqueiro and Nunes (2008) contended that based on findings of prior studies, a positive or negative relationship can be found between company size and financial performance. Size in this study will be measure as Natural log of sales. Dong and Su (2010).

3.5 Control Variables

Control variables are those variables that was included in a model equation whose effects need to be controlled in the model. They are simply certain criteria or conditions, that when they were not accounted for, will either invalidate the findings of the study or make it quite unrealistic because of the effect it will have on the firm financial performance which is the dependent variable of the study.

Control variables are therefore very important considerations when secondary data or analysis of firm indices is concerned. In view of this therefore, this study controls for leverage and firm size of companies. This is consistent with several previous studies (such as Alipour, 2011, Deloof, 2003, Dong & Su, 2010, Falope & Ajilore, 2009, Lazaridis & Tryfonidis, 2006, and Raheman et al, 2010. In addition, apart from the control variables, this study comprehensively operationalized and measured all the independent variables and dependent variable.

3.5.1 Size

A firm size is regarded as an important control variable in describing financial performance. The main unique factor between small and large companies is the access to external financing. It is suggested that the small firm have financial problems then the large company, is more critical in smaller size companies with lower sales turnover. This phenomenon arises from their relative size differences. Previous Studies showed they have used size to show how it affects companies' financial performance (Faulkender & Wang 2006). The company with high amount of resources has more opportunities to efficiently control working capital.

For that reason, Masso and Vahter (2012) states that in terms of recourses. The firm size can encourage a company to relaxed policy for accounts receivable and inventories, due to their access to more resources and funds. Again, companies with higher sales volume will need bigger investments in working capital (Moussawi et al., (2006), and they have additional opportunities growth (Chiou et al., 2006). Empirical findings disclose a significant association between size and firm's financial performance such as Kieschnich et al. (2006), Stephen and Elvis (2011), Deloof (2003), Gill et al. (2010), Mathuva (2010), Zariyawati et al. (2009), Lazaridis and Tryfonidis (2006), Garcia-Teruel and Martinez-Solano (2007), Afeef (2011). The association between size and firm's financial performance was found to be insignificant in the study of Samiloglu and Demirgunes (2008).

3.5.2 Leverage

A firm with high level of leverage means that it applied less external finances and depends more on external financing as their source of capitals. External financing is costlier than internal financing therefore, a company with lower debt ratio will give more attention to investing funds which were held in the operating cycle into opportunities in the current assets of its WCM (Nazir & Afza, 2009).

Based on the pecking order theory, Chiou et, al. (2006) states that, a company will seek to first finance its long-term investments with internal funds to reduce agency cost and to decrease costs of debt. Therefore, a company with lower debt financing tends to have better investment opportunities to increase profit than that which maintain higher debt financing. The studies of Deloof (2003), Gill et al. (2010), Raheman and Nasr (2007), Zariyawati et al. (2009), Mathuva (2010); Samiloglu and Demirgunes (2008), Zariyawati et al. (2010), Falope and Ajilore (2009), Napompeech (2012), Afeef (2011), Mahammed and Saad (2010), and Abuzayed (2012) found a strong negative and significant association between leverage and company's financial performance.

Table 3.1: Summary of variables and their Measurement

Variables	Measurement	Source
Dependent Variable		
Return on Assets (ROA)	Net income / total assets	Padachi (2006), Samiloglu and Demirdunes (2008), Falope and Ajilore (2009) Mohammed and Sa'ad (2010) Afeef (2011), Pais and Gama (2015).
Independent Variables		
Accounts receivables period (ARP)	(Accounts receivable/ net sales) x 365	Garcia et al. (2007), Samiloglu and Demirgunes (2008), and Falope and Ajilore (2009).
Accounts payables period (APP)	(Accounts payable/ purchases) x 365	Garcia et al. (2007), Samiloglu and Demirgunes (2008), and Falope and Ajilore (2009).
Inventory holding period (IHP)	(Inventory/cost of goods sold) x 365	Garcia et al. (2007), Samiloglua nd Demirgunes (2008), and Falope and Ajilore (2009).
Cash conversion cycle (CCC)	IHP+ARP-APP	Garcia et al. (2007) Samiloglu and Demirgunes (2008), and Falope and Ajilore (2009).
Leverage	Total Debt/total assets	Shin and Soenen (1998), Lazaridis and Tryfonidis (2006), Raheman and Nasr (2007), and Falope and Ajilore (2009).
Firm Size	Log Total Assets	(Deloof (2003), Raheman and Nasr (2007), Padachi (2006), Ajilore and Falope (2009), (2010), and Dong and Su (2010).

3.6 Research Framework

The research framework focuses on the impact of Working Capital Management on financial performance of Nigerian listed companies. The framework is designed based on the review of related literatures and research questions. Financial performance which is measured by return on assets (ROA) is the dependent variables, while Working Capital Management are the independent variables which is measured by Account receivable period, Account payable period, Inventory holding period, and cash conversion cycle.

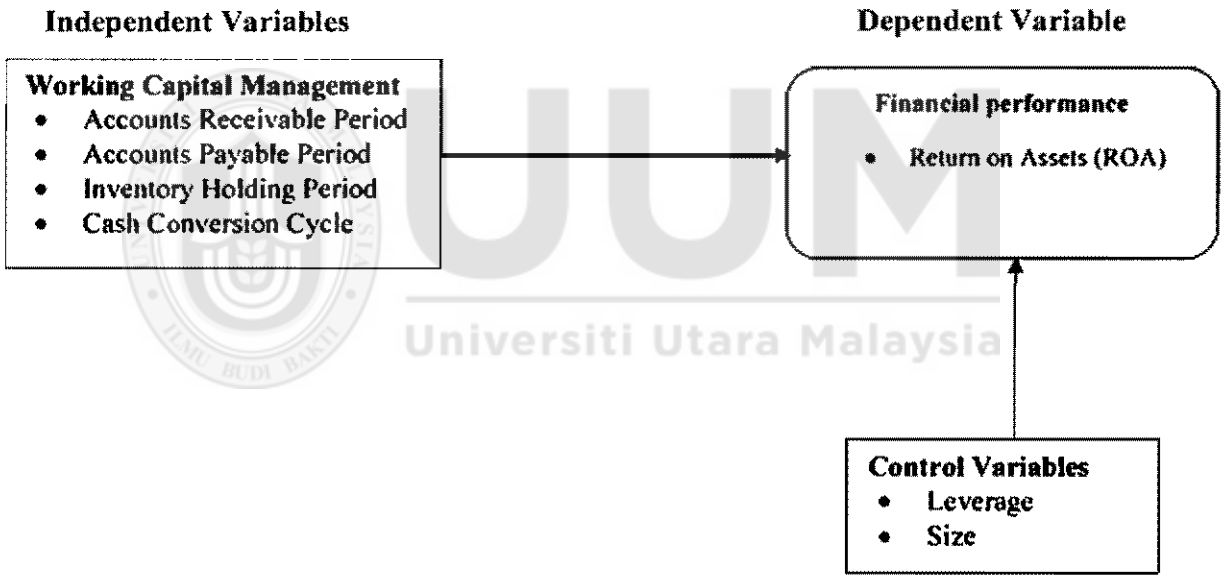

Figure 3.1 Research Framework

3.6.1 Variables Definition

As shown in the research framework, the variables involved in the study consists of one dimension of dependent variable and four dimensions of independent variables. The independent variables of this study which are accounts receivable period, accounts

payable period, inventory holding period, cash conversion cycle, and the two control variables are leverage and firm size are discussed in order to develop hypotheses.

3.7 Hypothesis Development

Given the empirical evidence on the WCM, the hypothesis of this study is developed based on the research framework.

3.7.1 Accounts Receivable Period (ARP)

ARP is an important component which requires management attention since it influence company's financial performance. The company sales can be encouraged by an increase in its accounts receivable (Garcia-Teruel & Martinez-Solano, 2010). A shorter ARP shows the management efficiency in days outstanding sales collection, whereas a longer ARP shows the efficiency of the management in days outstanding sales collection. Sustaining higher amounts in the accounts receivable could also increase financial performance since it can be seen as the quality assurance to customers. Wilner (2000) argued that the period customers take to offset their debt also explains the company's financial performance.

The credit sales given to customers turn out to be a cost to the company and possibly resulted to high bad debts, which may reduce financial performance. A significant association between ARP and financial performance was statistically established by Nobanee (2009); Raheman et al. (2010). Garcia-Teruel and Martinez-Solano (2007); Deloof (2003); Gill, et, al. (2010); Sen and Oruc (2009). Raheman et al (2010) found insignificant relationship between ARP and financial performance. The findings from their studies was interpret that a result positive coefficient means that the higher the

number of days in ARP the higher the company's financial performance, whereas the negative coefficient result suggest that the lower the number of days of ARP the higher the firm's financial performance. Therefore, this study hypothesized the relationship between ARP on financial performance as follows:

H_1: There is a significant relationship between accounts receivable period and financial performance

3.7.2 Accounts Payable Period (APP)

The longer the APP, the better for the company (Deloof, 2003), because it serves as an alternative source of short-term funds such as trade credits and accrued overheads for the day to day activities of the company. Consequently, sustaining good rapport with suppliers could help to achieve efficient WCM as well increase company financial performance.

The financial constraints face by companies especially non-financial companies is mainly due to their inability to secure external funds because of information asymmetry and lack of collateral by some companies in Nigeria, and this also affect their financial performance in the country. Therefore, if company can secure longer APP and delay its payments to suppliers, this will improve its working capital and increase financial performance. A significant relationship between APP on financial performance was found in the studies of Garcia-Teruel & Martinez-Solano (2010), Padachi (2006), Deloof (2003), Nobanee (2009), Raheman et al. (2010), Falope and Ajilore (2009) and Sen & Oruc (2009). Ganesan (2007) found insignificant relationship between APP on firm's financial performance. Interpretation of these findings reveals that a positive coefficient

is means that the higher the number of days in APP the higher the firm's financial performance, whereas a negative coefficient means the lower the number of a days in APP the higher the firm's financial performance. Thus, this study hypothesized the association between APP on financial performance as follows:

H_2 There is a significant relationship between accounts payable period and financial performance.

3.7.3 Inventory Holding Period (IHP)

The management of inventory will influence company's financial performance (Gill, et al., 2010). A lower IHP shows the management capability in changing inventories into sales. Whereas a longer IHP indicates that the management is holding more cash in inventory and can lead to decrease in sales. Effective management of inventory do not only improve firm's financial performance, but also avoids prevalence of emergency ordering (Chowdhury & Amin, 2007).

Despite that, keeping a high investment in inventory may also salvage the company from unexpected price changes (Autukaite & Molay, 2001), a lower IHP is more effective in achieving optimum WCM. Prior studies such as Deloof (2003), Falope and Ajilore (2009), Raheman and Nasr (2007), Padachi (2006), and Nobanee (2009) found a significant association between IHP on financial performance. On the other hand, Lazaridis and Tryfonidis (2006) found insignificant relationship between IHP on financial performance. The interpretation of their findings is that positive coefficient means that the higher the number of days in IHP the higher the firm's financial performance. On the other hand, the negative coefficient means that the lower the number

of days in IHP the higher the company's financial performance. Therefore, the study hypothesized the association between IHP on financial performance as follows:

H_3 There is a significant relationship between inventory holding period and financial performance.

3.7.4 Cash Conversion Cycle (CCC)

Zariyawati et, al. (2009) states that shorter CCC increases company's financial performance, creating availability of capitals for daily actions. Unambiguously, raw materials are transformed into sales and funds are received at the appointed time. A shorter CCC enhance financial performance of the firms less depending on external financing which is tough and exclusive, particularly for Nigerian companies. As such, a firm will be financing certain area of its current assets using suppliers' credit.

Furthermore, due to lack natural resources companies, a shorter CCC would assistance them to improve WCM (Nobanee 2009). The studies by Lazaridis and Tryfonidis (2006); Garcia-Teruel and Martinez-Solano (2007); Padachi (2006); Raheman et al. (2010); Sen and Oruc (2009) all have found a significant relationship between CCC on financial performance. In contrast, an insignificant association between CCC on financial performance (e.g Deloof 2003; Samiloglu & Demirgunes 2008). For instance, DeIoof (2003) and Moss et al. (1993) states that small firms have significantly longer CCC. The positive coefficient is interpreted that the higher the number of days in CCC the higher the firm's financial performance. On the contrary, the negative coefficient means that the lower the number of days in CCC the higher the firm's financial performance. This study

therefore hypothesized the relationship between CCC on financial performance as follows;

H_4 There is a significant relationship between cash conversion cycle and financial performance

3.8 Research Model

The projected hypothesis of the study was tested by accepting and adjusting the models used by Teruel and Solano (2005), Falope and Ajilore (2009). Therefore, the impact of the independent variables on financial performance was examined through the following models:

$$ROA_{it}=\beta_0+\beta_1 ARP_{it}+\beta_2 APP_{it}+\beta_3 IHP_{it}+\beta_4 CCC_{it}+\beta_5 LEVERAGE_{it}+\beta_6 SIZE_{it}+\varepsilon_{it}$$

Where

$Financial\ performance = ROA$

$i = Company$

$t = Time\ Period$

$\boldsymbol{ARP} = Accounts\ Receivable\ Period$

$\boldsymbol{APP} = Accounts\ Payable\ Period$

$\boldsymbol{IHP} = Inventory\ Holding\ Period$

$\boldsymbol{CCC} = Cash\ Conversion\ Cycle$

$\boldsymbol{LEVERAGE} = Debt\ (Financial\ Leverage)$

$\boldsymbol{SIZE} = Size\ of\ the\ Firm$

$\varepsilon = Error\ term$

3.9 Diagnostic Tests

Before regression analysis is conducted, several tests such as normality test, multicollinearity, heteroscedasticity and auto-correlation are carried out.

3.9.1 Normality Test

Normality is a test used to determine whether the data sampled was drawn from a normally distributed population. In multivariate analysis, normality test is highly important (Hair et, al., 2006).

3.9.2 Multicollinearity Test

Multicollinearity analysis is a test used to explain the presence of multicollinearity problem in the model. The main aim of this test is to measure the level of relationship between the independent variables. The problem of multicollinearity exists in a model when the variance inflation factor (VIF) value is more than 10 (Hair et. al., 2006).

3.9.3 Heteroscedasticity Test

In order to detect the existence of heteroscedasticity problem in the models, the study used Breusch-Pagan-Godfrey test. Gujarati (2003) suggest that Breusch-Pagan-Godfrey is more appropriate for large sample test and is not sensitive to the assumption that the disturbances μi is normally distributed.

3.10 Panel Data Analysis

The Hausman test is used to select the most appropriate model for the study between the fixed and random affects model. The null hypothesis states that random effects model is most preferred. Where the null hypothesis is rejected the most appropriate model is fixed effect (Gujarati, 2003).

3.10.1 Multiple Regression Analysis

In order to solve problems that may exist in the data which include non-normality, heteroscedasticity and serial correlation problems, the study uses general least square (GLS)

method of regression analysis to run the data. The GLS methods is considered more suitable since it removes the problem of normality in a model. In the case of non-normal data, the GLS which is a transformed of ordinary least square (OLS) is more appropriate than the OLS (Gujarati, 2003).

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, the results and findings on the impact of working capital management on financial performance of Nigerian listed companies are discussed and presented. Section 4.1 focuses on the descriptive statistics. Section 4.2 concentrates on the analysis of regression result, section 4.3 discussion to be present on the findings. Furthermore, the statistical software STATA 13.0 was used in analysing the relationship between independent and the dependent variables using Pearson Correlation Coefficients and Regression analytical tools. It also presents the descriptive statistics results which provide summary statistics for the variables of the study.

4.2 Descriptive Statistics

Descriptive statistics is a tool for converting raw data into a simplest form that would simplify the understanding and interpretation of the data. This is a very important technique in the study because it is a preliminary approach that assists in providing analytical information on each variables of the data. Table 4.1 presents the descriptive statistical analysis for the independent and dependent variables of the study.

Table 4.1 Descriptive Statistics of the variables

Variables	N	Min	Max	Mean	Std. Dev.
ROA	226	-31.3	16.89	-6.93	17.71
ARP	226	8.216	107.0	42.70	34.90
APP	226	13.62	121.0	50.56	50.97
IHP	226	28.50	401.0	110.6	98.05
CCC	226	-37.0	395.0	110.8	99.51
LEV	226	-30.3	68.51	120.8	34.69
SIZE	226	4.065	8.754	6.371	3.688

Source: Generated by the researcher from the annual reports of the sampled companies using STATA (Version 13).

Table 4.1 discloses that the dependent variable ROA which measured performance of the company has a means value of -6.93 percent. This means that the number of companies experienced net loss during the period, this reflect that the companies do not efficiently transform their assets into revenue.

Furthermore, Table 4.1 shows the statistics of the independent variables. The period of time (ARP) to collect cash from the customers from the credit sales would takes an average of 43 days while the minimum and maximum days are 8 days and 107 days respectively. In the same way, a company takes an average of 51 days to settle suppliers (APP) and also delays for a minimum of 14 and maximum of 121 days. The variation in ARP and APP discloses that the company could have a cash flow for the running of their day-to day business activities. This is because, the numbers of days in paying suppliers is greater than the collection period of sales outstanding. The mean for IHP is 111 days and minimum of 29 and maximum of 401. This implies that the company has a minimum of 29 days to change their inventory into revenues. The CCC used as a proxy to measure the

efficiency of the company in WCM has a mean of 110 days and the minimum and maximum days are -37 and 395 days. This explains that a company takes an average of 110 days for a complete WCM cycle for the company to convert inventories into cash. The study of Lazaridis and Tryfonidis (2006) found a mean of 188 days for cash conversion cycle (CCC).

Table 4.2 describes the correlation between the variables used for this study.

Variables	ROA	ARP	APP	IHP	CCC	LEV	SIZE
ROA	1						
ARP	-0.1379	1					
APP	-0.0209	0.1016	1				
IHP	-0.1665	-0.1467	-0.0104	1			
CCC	-0.1912	0.0891	-0.2544	0.0347	1		
LEV	-0.0247	0.0657	0.0519	0.2031	0.2018	1	
SIZE	0.2481	-0.0770	0.0674	-0.0343	-0.0704	-0.0760	1

Source: Generated by the researcher from the annual reports of the sampled companies using STATA (Version 13).

The correlation analysis is used as a techniques or tools to determine the level of relationship between each variable that was tested. The correlation of ± 1 is indicates perfect positive or negative relationship. It started from 0 which shows no relationship between the two variables. From the Table ROA has negative relationship with ARP, APP, IHP, CCC, and leverage. Table 4.2 discloses that the minimum and maximum positive correlations among the variables are 0.0347 and 0.2481 respectively. While the minimum and maximum negative correlation among the variables are -0.0104 and -0.2544. According to Pallant (2007) multicollinearity occurs in a data when correlation value is 0.9 and above. Therefore, it is based on this statement that a researcher believed that there is no multicollinearity on this data.

4.3 Normality Test

Normality is a test used to determine whether the data sampled was drawn from a normally distributed population. According to Kline (1998) discloses that the skewness shouldn't go beyond ± 3 while kurtosis should not exceed ± 10. The statistics for both skewness and kurtosis in the table 4.3. Indicates that no any value from the data that shows skewness or kurtosis up to ± 3 or ± 10. Therefore, the data used in this study beside skewness and kurtosis is normally distributed.

Table 4.3 Summary for normality test

Variables	Observations	Skewness	Kurtosis
ROA	246	0.49076	8.49863
ARP	246	0.58624	2.16955
APP	246	0.60058	2.06885
IHP	246	1.86221	6.84089
CCC	246	1.30468	4.72079
LEV	246	-0.2498	2.12071
SIZE	246	-0.2105	2.02973

Source: Generated by the researcher from the annual reports of the sampled companies using STATA (Version 13).

4.4 Multicollinearity Test

To check the problem of multicollinearity in the data, a variance inflation factors (VIF) is reported and computed in the table 4.4 the independent variables value from the VIF statistics discloses in the table ranges from 1.02 to 7.78 and the VIF average is 3.69 This means that, the statistical result is within the boundary or limit because they are all below 10, this indicating that there is no problem of multicollinearity in the data (Gujarati & Sangeetha, 2008, Hair et al., 2006). There is no any incidence on the assumption that multicollinearity exist in the data for this research study.

Table 4.4 Variance Inflation Factor (VIF)

Variables	VIF	1/VIF
ARP	4.58	0.218158
APP	5.08	0.196871
IHP	2.64	0.378706
CCC	7.78	0.128503
LEV	1.06	0.940980
SIZE	1.02	0.980984
Mean VIF	3.69	

Source: Generated by the researcher from the annual reports of the sampled companies using STATA (Version 13).

4.5 Heteroscedasticity

The heteroscedasticity test for Breuch-pagan cook-weisberg test discloses a chi-square value of 0.58 for the model with a p-value of 0.4475 This indicates that the null hypothesis will not be rejected, this means that there is no problem of Heteroscedasticity in the data for the model. Furthermore, to reaffirm the validity of the above statement. The Cameron and Trivedi's decomposition of IM test is also shows a p value of 0.1764. This indicates that the null hypothesis will not be rejected.

Heteroscedasticity Finding

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity Cameron & Trivedi's decomposition of IM-test with p value 0.1764 and the Breusch-pagan /cook-weisberg test for heteroskedasticity chi-square 0.58 with the p value of 0.4475.

Table 4.5 Heteroskedasticity Result

Sources	Chi2	df	P
Heteroskedasticity	33.65	27	0.1764
Skewness	3.80	6	0.7032
Kurtosis	3.00	1	0.0833
Total	40.45	34	0.2067

Prob>f = 0.2573

The hausman test result discloses that the random effects model is more appropriate for this study. Because, before choosing the most appropriate estimation model between random and fixed affects model. The result discloses 10.08 with the P- value of 0.723, the null hypothesis will not be rejected for the model.

Therefore, it is suggested that random effect model is more appropriate model than the fixed effects for this research study (Gujarati 2003).

Table 4.6 Hausman Test Finding

Variables	Fixed effect	Random effect	Hausman test
ARP	-0.2372539	-0.248889	0.0116355
APP	0.1644026	0.1595209	0.0048817
IHP	-0.225783	-0.211205	-0.014578
CCC	0.144422	0.1515723	-0.007150
LEV	-0.025087	-0.002921	-0.022165
SIZE	1.277957	1.429029	0.1510717

R-Squared	0.1097
Adjusted R-Squared	0.085
Wald chi^2 (6)	3.650
Prob	0.723
N	226.0

Based on this data, the problem of normality, homoscedasticity and multicollinearity problems does not exist in this data, and the regression analysis of this study is accomplished by using pooled ordinary least square (OLS) estimation. But, the generalized least square (GLS) method can only be apply when there is problem of non-normality in the data which could help in reducing the problem. Gujarati (2003). Shows that in the case of normality data, the OLS as a transformed model of GLS is more suitable than the GLS. Furthermore, Baltagi (2008).

Describes that when sample is moderate, OLS is more appropriate than GLS but when sample is large the GLS is more suitable than OLS for serial correlation or heteroscedasticity problems. The results of regression analysis for ROA is depicted in the table 4.5

Table 4.7 Regression Analysis for the Independent variables on ROA

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	1.2705	1.7089	0.74	0.457
ARP	1.9967	0.9676	2.06	0.039
APP	-2.320	0.9829	-2.36	0.018
IHP	0.0971	0.0270	3.60	0.000
CCC	2.3200	5.9800	0.39	0.698
LEV	0.0272	0.0299	0.91	0.362
SIZE	0.0361	0.0126	2.86	0.004
R-Squared	0.1055			
Adjusted R-squared	0.0970			
Wald chi^2 (6)	23.96			
Prob (F-statistics)	0.0005			
N	226			

Source: Generated by the researcher from the annual reports of the sampled companies using STATA (Version 13).

Table 4.5 discloses that ARP, APP, IHP, are significant with the model. This signifies that there is an association between the independent variables and the dependent variable in the model. The R^2 value for the model is 0.1055 which means that the model consisting of the independent variables which explains almost 11 percent of the variation in the model. According to Falk and Mill (1992) recommends that R^2 values should be equal to or greater than 0.10. Therefore, the R^2 on this study is within the boundary. Furthermore,

the Table 4.5 discloses that ARP, APP IHP, and firm size are found to be significant to ROA. On the other hands, CCC and LEV are found to be insignificant to ROA.

The cash conversion cycle has insignificant relationship with the firm financial performance. Therefore, based on these variables, there is only one variables and one control variable that is, APP and leverage as control variable that have negative relationship with ROA, while the remaining independent variables have positive relationship with ROA. The negative coefficient means that when APP decreases, the financial performance of the company would increase. This is inconsistent with the work of (Afrifa, et al., 2015, padachi, 2006; serrasquiro and Nunes, 2008, padachi and Howorth, Bonos-Caballero et al., 2010).

4.6 Results Analysis and Discussions

In the discussion of this results, each independent variable and its effect on financial performance is investigated and connect to prior findings on WCM. The discussion will be based on the results as presented in Table 4.4 for ROA.

4.6.1 Account Receivable Period (ARP) and Financial Performance

ARP this is found to be significantly associated with the model. The result proposes that the management of ARP has an influence on financial performance. Meaning that decreasing the number of days to collect credit sales outstanding to customers will increase the company's financial performance. In addition, the positive coefficient implies that an increase in days sales outstanding would led to decrease in financial performance of the company. Therefore, the management could improve firm's financial performance by decreasing the number of period given to their customers. The significant

relationship between ARP and financial performance will help in reducing defaults of credit by the customers (Cheng & Pike, 2003, Martinez-sola et al., 2012). Furthermore, the positive relationship also suggests that if the credit sales can be repaid in time from customers, then the cash flow could be invested in a lucrative venture so as to improve the firm's financial performance. The finding of this research study is in conformity with various existing studies that found ARP to be significant positive related to financial performance including Deloof (2003), Padachi (2006), Lazaridis and Tryfonidis (2006), Garcia-Teruel and Martinez-Solano (2007), Samiloglu and Demirgunes (2008), Sen and Oruc (2009), Falope and Ajilore (2009), Mathuva (2010), Gill et al. (2010).

Furthermore, the result does not reject the hypothesis that there is a significant association between ARP and financial performance.

4.6.2 Accounts Payable period (APP) and financial performance

The Table 4.4 results discloses that the association between APP and financial performance are significant to ROA. Therefore, the APP have an influence on financial performance. Furthermore, the regression result for account payable period (APP) indicates a negative association with the company financial performance.

This suggests that the higher the number of days in account payable period would tends to increase the company financial performance. The finding is in line with the study of Raheman et al., (2010) and Stephen and Elvis (2011). Found significant association between APP and financial performance. The finding support the hypothesis that there is a significant association between APP and financial performance.

4.6.3 Inventory Holding Period (IHP) and financial performance

IHP was found to be significantly related with ROA. This describes that the management of IHP will influence company's financial performance. Furthermore, the significant positive association reflect that the longer the IHP, the higher the financial performance. It also explains that keeping high levels of inventories would reduce the effect of possible problems in the production process and as well as safeguarding the company from loss of sales due to scantiness of goods in the stock.

Furthermore, preserving high level of inventories is that it helps to reduce the supply cost and prevent the company against any price instability due to negative effect of macroeconomic factors. Therefore, it was reported that most of the Nigerian companies prefer to invest on current assets than fixed assets. Thus, holding high inventory is aimed to improve sales by meeting the customer's requirement and consequently increase firm's financial performance. (Afrifa et al.,2015). The finding is inconsistent with Abuzayed (2012), Mathuva (2010), and Sen & Oruc (2009),

The study by Abuzayad (2012), Gill et al. (2010), Lyroudi and Lazaridis (2000), Mathuva (2010), Nobanee (2009) all found a significant positive association between IHP and financial performance. This finding was supported the hypothesis that there is a significant association between IHP and financial performance. Because, the longer the inventory holding period the higher the profitability of the company.

4.6.4 Cash Conversion Cycle (CCC) and Financial performance

The CCC as an important measurement of WCM efficiency is found to be insignificantly related with ROA. From the regression Table, you could see that the coefficient is positive. This indicates that the higher the CCC, the higher the company's financial performance. Conversely, the shorter the days of working capital, the higher the firm's financial performance. Thus, Cash conversion cycle is a comprehensive tool for examining productivity of working capital management. The finding is in line with Deloof (2003), Gill et al., (2010), Padachi (2006), and Stephen and Elvis (2011). This result does not support the hypothesis that there is significant relationship between CCC and financial performance.

4.6.5 Leverage and Financial performance

Table 4.5 the leverage as one of the control variable discloses that the relationship between leverage and ROA is negative and insignificantly related to company's financial performance. The negative coefficient explain that the companies uses less external financing to enhance the company financial performance. This statement is in line with the pecking order theory (Myers, 1984) and this is basically recommended empirically in previous studies of the pecking order financing structure among companies (Zoppa & McMahon, 2014). According to the pecking order theory, organization may prefer to use internal financing than external financing unless where there is no enough capital of which the organization might go for debt financing.

A reduction in leverage may ultimately resulted to an increase in funds available for day to day activities and viable projects and accordingly higher financial performance. The

financial leverage which has negative relationship with firm financial performance indicates that any reduction in debt uses by the firms could increase the firm financial performance. The findings are in line with prior studies such as Afza and Nazir (2009), Banos-Caballero et al. (2010), (Falope and Ajilore (2009), Padachi (2006), Raheman and Nasr (2007), Zariyawati et al., (2009).

4.6.6 Firm Size and Financial Performance

Firm size as one of the control variable is found to be significantly positive related with ROA. The coefficient is also positive. This suggests that, the companies that are bigger in size will have higher ROA. The bigger the firm size increases, the higher the firm financial performance will increase. This can be associated with the fact that bigger companies take more advantage of high production capacity, economies of scale to improve company's financial performance due to the reduction in the cost of invention and innovation (Serrasqueiro & Nunes, 2008).

The bigger firms have the capacity to expand and grow their businesses by diversifying into different geographic location or introduce a new product line (Yang & Chen 2009). Therefore, the diversification would assist the company to become less vulnerable to failure and also help the company in a lucrative business. Zoppa and McMahon (2002) explains that when companies increases in size, then they became more independent on short-term financing.This result is in line with existing studies such as (Falope & Ajilore, 2009, Garcia-Teruel & Martinez-Solano, 2007).

The summary of the results of hypotheses tested for the independent variables ARP, APP, IHP, and CCC on financial performance is presented in Table 4.7 below.

Table 4.6 Summary of the results of Hypotheses testing

Hypotheses	**ROA**
H_1: there is a significant relationship between ARP and financial performance.	Hypothesis supported
H_2: there is a significant relationship between APP and financial performance.	Hypothesis supported
H_3: there is a significant relationship between IHP and financial performance.	Hypothesis supported
H_4: there no significant relationship between CCC and financial performance.	Hypothesis not supported

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introdnction

This chapter is concentrated on summary and conclusion of major aspect of the study. The implications of policy of the findings, limitations of the study and lastly suggestions for future research and development.

5.2 Summary and Conclusion

This study evaluates the impact of working capital management on financial performance of Nigerian listed companies especially non-financial companies in Nigeria. The study used quantitative data extracted from annual financial reports of companies in non-financial sectors. The data was collected from the Nigeria Stock Exchange Commission (NSEC) it serving as a Centre for regulation, corporate information and development of Nigerian companies. The data contained financial information of 20 companies, and the number of unbalanced panel data observations is 226 in this study over the period of six years from 2006-2011.

Account receivable period (ARP) is found to be significantly associated with the return on asset (ROA). The result proposes that the management of ARP has an influence on financial performance. The finding suggests that decreasing the number of days to collect credit sales outstanding to customers will increase the company's financial performance. In addition, the management can increase financial performance of the company by decreasing the number of period given to their customers. Once more, the positive

coefficient means that a decrease in days sales outstanding will also help to increase the company's financial performance. Therefore, Account payable period (APP) has a significant association with financial performance. Therefore, the APP have an influence on financial performance. Furthermore, the regression result for account payable period (APP) indicates a positive association with the company financial performance. However, Inventory holding period (IHP) was found to be significantly related with ROA. This describes that the management of IHP will influence company's financial performance. Furthermore, the significant positive association reflect that the longer the IHP, the higher the financial performance.

It also explains that keeping high levels of inventories would reduce the effect of possible problems in the production process and as well as safeguarding the company from loss of sales due to scantiness of goods in the stock. CCC as an important measurement of WCM efficiency is found to be insignificantly related with financial performance. This is because, three components of working capital management that is, Account receivable period, Inventory holding period, and Account payable period had a link with cash conversion cycle. This is in line with the statement of Deloof (2003) which proposes that 'the insignificant results between cash conversion cycle and ROA should not be a surprise since ROA declines with account receivable period and inventory holding period but also account payable period was subtracted from the calculation of cash conversion cycle.

5.3 Limitation of the study

The study did not cover Tobin's Q in this research study which measure the company's assets in relation to a firm market value. There is lack of adequate literatures on this study, because based on the literatures available, this is the first study on the impact of working capital management on financial performance of Nigerian listed firms. In the same vain, this study only uses two control variables such as firm size and leverage in the study. The main limitations encountered by the researcher are firstly; the inability of the findings to be used in all contexts and situations. These findings restricted only to the non-financial companies, the findings are also narrowed to the companies that are quoted in the Nigerian stock exchange.

Furthermore, these findings cannot be use for small and medium enterprises firms that are not listed on the Nigerian stock exchange. Secondly, the sample size of 41 non-financial companies is very small by considering the numbers of companies in non-financial sectors in Nigeria, which might bring the chances of multicollinearity in the data. Thirdly, the researcher depends on the audited financial statements of those non-financial companies and as such the information obtained and further findings by either falsification arising from the financial statement, mistake, error, and omission.

5.4 Implications of the study

The results of the study will help investors to appreciate how working capital management can affect the company's financial performance. The findings can also assist them on the effective and efficient credits policies and maintain a good relationship with

trade creditors as well as customers' relationship. The positive relationship between inventory holding period with return on asset (ROA) Indicates that companies which sufficiently maintain high inventory levels, may reduce their cost intermittent production in the company. The positive relationship between account payable indicates that the longer the accounts payable the better the financial performance of the company. This study can also be considered as a contribution to the body of knowledge, to the existing literature, and also series of studies conducted generally in the world especially in the area of working capital management and financial performance. There is also an expectation to increase more substance to the lack of literature in the aspect of working capital management specifically in sub-Sahara Africa and Nigeria in particular. In addition, in line with findings of this study the relationship of WCM with financial performance among Nigerian quoted nonfinancial companies seems to be the same with the relationship found in other countries in the world.

Based on the contribution of non-financial firms in Nigeria GDP, the study of working capital management on financial performance is very essential base on the fact that any policy implication resulting from the findings may have a tendency of influencing the growth of the economy.

5.5 Suggestions for the Future Research

Having acknowledged the limitation of this study, this section is attempt to offer suggestions for further research. The present study employed only two control variables that is, firm size and leverage which was used to measure the natural logarithm of sales.

Future studies other control variables that to be best of researcher's knowledge have not been applied in the area of WCM on firm financial performance. Furthermore, other research studies can use proxies apart from ROA that was used in this study as a dimension of financial performance to test the impact of working capital management. Lastly, comparative study can be conducted between non-financial companies and financial companies in Nigeria or even Nigerian non-financial companies and other countries in the world to discover whether there are any inconsistencies in their working capital management activities.

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