The Effects of Working Capital Management on Corporate Profitability: Evidence from Nigerian Food and Beverages Industry

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Abstract
This paper examines the effect of working capital management on corporate profitability for the period 2009 to 2013. A sample of nine firms listed on the floor of the Nigerian Stock Exchange was studied. The study made use of secondary data generated from annual reports and accounts of the sampled companies and the Nigerian Stock Exchange Fact book. The data were analyzed by means of descriptive statistics and GLS regression analysis using STATA 12. The study finds a positive relationship between Average Collection Period (ACP), Current Ratio (CR) and the size of the firm (LOGSIZE) with Profitability and a negative relationship with Inventory Turnover Period (ITP), Average Payment Period (APP). The paper therefore recommends that cash collected should be re-invested into short-term investment to generate profits and fund left idle in the cash or excessive liquidity is costly and do not lead to profitability.

Keywords: *Working Capital, Corporate Profitability, Food Product Firms, Nigeria*

1.0 Introduction

In the past working capital strategies has been the responsibility designated to those managers in accounting and finance departments. However, today's economy is changing those roles and many managers who traditionally were not part of this process are being called upon to take pro-active steps in reducing the risk associated with working capital. (Onodje, 2014)

Traditionally, focus had been on the study of long-term financial decisions, particularly investment, dividends or company valuation decisions. Short-term assets and liabilities are important components of total assets and needs to be carefully analyzed. Management of these short-term assets and liabilities warrant a careful investigation since the working capital management plays an important role for the firm's profitability and risk as well as its value. Working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the relationship that exists between them. The term current assets refer to those assets which is in ordinary course of business can be, or will be converted into cash within one year without undergoing a diminution in value and without disrupting the operation of the firms. Examples are cash, marketable securities, account receivables and inventory. On the other hand, current liabilities are those liabilities which are intended, at their inception to be paid in the ordinary course of business in a year out of current assets or earnings of the concern. The basic current liabilities are account payables, bills payable, bank overdraft and outstanding expenses. Efficient management of working capital is a fundamental part of the overall corporate strategy to create shareholders' value. (Ajo & Adebayo, 2012)

Working capital is refers to the management of current assets and current liabilities, it is therefore important for every enterprise to plan for adequate funds to meet the day-to-day expenditure requirements of the business. Working capital management is a process of planning for the acquisition and usage of short term assets and liabilities. Working capital is the flow of readily available funds necessary required for continuous operations of an enterprise. Working capital management therefore is a process of determining the firms' policy in planning for its current assets and

liabilities holdings in financing its routine operations. It is important to note that out of every resource that an organization has, working capital is the most important. Working capital is a vital element in any organizational setting that requires cogent attention, proper planning and management. As resources available to organizations are scarce, it is believed that the management of an organization's working capital has a pivotal role to play in the achievement of profitability and overall performance of such an entity. This implies that a firm's liquidity does to a large extent determine its profitability. In this vein, (Charitou, Elfan, & Lois, 2010), believes that efficient utilization of the firm's resources leads to increased profitability and reduces volatility which leads to the reduction in default risk and thus improves the firm's value.

Furthermore, to the best of the researcher's knowledge there are few or possibly absent of studies, on sectoral basis, that investigated the effect of working capital management on firm profitability in Nigerian Food and Beverages Industry. These twin concerns are the motivating factors for this study. Lack of or perhaps missing of empirical evidence on the effect of working capital management on firm profitability in case of the Nigerian Food and Beverages Industry (to the best of the researcher's knowledge), as well as lack of general agreement regarding the influence that working capital management variables have on corporate profitability provided the reason for this study. The study therefore, is an attempt to fill this gap and will examine the relationship between working capital management and firm profitability for the Nigerian Food and Beverages Industry.

The objective of this study is to examine the relationship between working capital management and company's corporate profitability with emphasis on Nigerian food and beverages industry.

The rest of the paper is divided into four sections, section two brief literature from previous studies. Third section of the study describes methodology used for examining the relationship between working capital and profitability. Section four comprises of the empirical results and discussion. Fifth section is conclusion and recommendation.

2.0 Review of Related Literature

2.1 Conceptual Frame Work

Working capital is the excess of current assets over current liabilities. This is what is referred to in the balance sheet as the net current assets. Working capital therefore represents the funds used to finance production such as the purchase of raw materials, to finance inventories and provide credit to customers. For example, a firm that does not enjoy credit from its suppliers of goods and services would have to raise funds to purchase raw materials, pay salaries and other production overhead costs until the raw material undergo all the manufacturing processes and then become finished goods to be sold. The funds so used until money comes in from the sales of the finished products, is part of the firm's working capital. Also, if some of the sales are on credit, it means that the firm will have to raise additional funds equivalent to the credit sales for the period of the credit given to customers to pay for raw materials, salaries and other costs. This will result in an increase in the working capital. However, the amount of working capital required would decrease if raw materials could be obtained on credit by the amount of credit given. The ineptitude of many business operators in managing organization's working capital therefore brought to bear, the question whether effective working capital management has significant relationship with the growing tendency of firm's to survive in Nigeria. Ali. W. (2011).

The four financing decisions which the financial manager makes in the day-to-day running of the firm are investment decisions (long-term asset mix); financing decisions (capital-mix); dividend decisions (profit allocation) and the liquidity decisions (short-term asset-mix). None of these four decisions is more important than the other; hence a good financial manager should attach equal importance to these decisions as the firm strives to maximize its value. However, the corporate finance literature had traditionally focused on the study of long-term financial decisions, particularly investments, capital structure, dividends or company valuation decisions (Nopompech, 2012). Short-term assets and liabilities are important components of the total assets of the firm hence; need for their carefully analysis. The management of these short-term assets and liabilities warrants a careful investigation since it plays an important role in

firm's profitability, risk as well as ensuring maximization of the firm's value (Ray, 2012). Efficient management of working capital is thus a fundamental part of the overall corporate strategy of the firm in creating the shareholders' value, keeping in mind that an optimal level of working capital will maximize the firms' value (Egbide, 2009).

Lack of liquidity (or illiquidity) in extreme situations can lead to firm's insolvency (Pandey, 2008). However, a conflict exists between profitability and liquidity while managing the current assets of the firm. Where the firm does not invest sufficient funds in current assets, it may become illiquid and therefore risky and could lose profitability as idle current assets would not earn anything, hence, a proper trade-off must be achieved between profitability and liquidity. This requires the development of sound techniques of managing the working capital. There are two main types of working capital policies of the firm viz: aggressive and conservative working capital policies. While the aggressive working capital policies is said to be followed by the firm when it uses more short-term financing than warranted by the matching plan, the firm uses funds for permanent fixed assets for short-term financing, the conservative approach involves and depends more on long-term funds for the financing needs of the firm (Pandey, 2008).

2.2 Theoretical Frame Work

Various theories and related models have evolved over the years to explain or predict the behavior of the various components of working capital. Prominent amongst them are those dealing with inventory and cash management. An important model dealing with the inventory component of working capital management is the Economic Order Quantity model (EOQ) (Raheman & Nasir, 2007). The EOQ model determines the point at which the combination of order costs and inventory carrying costs are the least to a firm. It states that the quantity of inventory to be ordered at a given time must be determined by two balancing factors: (1) the cost of holding or carrying inventories and (2) the cost of acquiring or ordering inventories. Purchasing larger quantities of inventories may decrease the unit cost of acquisition, but this saving may be more than offset by the cost of carrying inventories for a longer period of time. The basic ingredients of the theories of cash and inventory components of working capital management include the optimum level of working capital, and the trade-off between profitability and risk associated with the level of working capital. Efficient working capital management requires that firms operate with some optimum (cheapest) level of working capital.

2.3 Empirical Review

The empirical literature provides evidence consistent with a prior expectation of the relationship between components of working capital and profitability (Eljely, 2004, Lazaridis et al, 2006, & Garcia-Turuel et al, 2007). These results indicate that inventory conversion period and receivable conversion period are inversely related to profitability, while payable deferral period is directly related to profitability. However, an earlier study by Deloof, (2003) found that profitability is inversely related to accounts payable deferral period, thus contradicting a priori expectation. This result appears to suggest that unprofitable firms wait longer before paying their bills to creditors.

Incidentally, a later study by Nobanee et al (2009) also agrees with the contradictory result of Deloof, (2003) for account payable deferral period. The results of Nobanee et al (2009) also contradicts a priori expectation for inventory conversion period, indicating that shortening the inventory conversion period reduces profit rather increase it. An explanation for this may be that carrying higher level of inventory may enable the firm take advantage of business opportunity. However, this may only be possible for firms dealing in fast moving inventories.

Evidence suggests that shortening the cash conversion cycle increases a firm's profitability (Eljelly, 2004, Deloof, 2003, Lazaridis et al, 2006, & García-Teruel et al, 2007). This occurrence may be due to the fact that the firm with a short cash conversion cycle readily realizes its investments which it could quickly plough back into the business thereby taking advantage of profitable investment opportunities.

However, this result was contradicted by those of Nobanee et al (2009) which suggest that shortening the cash conversion cycle reduces profitability rather than increase it. They

explain that shortening the cash conversion cycle suggests aggressive management policy that may be resisted by debtors who are being pressurized to pay up and creditors who are not being paid in term.

Indeed, this reasoning is supported by the findings of Afza Nazir and (2007) which indicate that firms increase profit by adopting a conservative approach towards working capital management. Their results also show that investors attach risk premium to the stocks of firms with aggressive working capital management policy. The implication is that such firms source funds at higher cost to finance their operations thereby reducing their profit levels. In view of their results which indicate that shortening the cash conversion cycle harms profitability, Nobanee et al (2009) recommend that keeping the working capital components at their optimum levels is a better tool for increasing profitability than the focus on cash conversion cycle. This position is corroborated by the findings of Adegbie (2012) which show that maximum operating shortfall is a better predictor of the amount of cash holding a firm requires to remain profitable than the cash conversion cycle.

Also, Zubair and Muhammad (2013) examined the impact of working capital management on profitability for a sample of 21 listed cement companies in Karachi Stock Exchange, for the period of 2004 – 2010. Empirical findings showed that there is a significant negative relationship between working capital management on profitability of firms. Similarly, other researchers also conducted their study on the impact of working capital management on corporate profitability in different environment and countries and they all arrived at common and similar conclusion. Eljelly (2004), Gill, Biger and Mathur (2010), Charitou, Elfani and Lois (2010), Mathuva (2010), Rahman (2011), Alipour (2011), Usama (2012), Onwumere, I be and Ugbam (2012), Uremadu, Egbide and Enyi (2012), Oladipupo and Okafor (2013). In contrast, Lazaridis and Tryfonidis (2006) sampled 131 listed firms in Athens Stock Exchange for the period of 2001 – 2004 and their results showed a significant relationship between operating profit and CCC and its components. The study suggested that managers can enhance the profits of firm by keeping each component of working capital on an optimal level and appropriate handling of CCC. In addition, Hamid and waqar (2013) in their paper they made an attempt to examine the efficiency of working capital management of the Pakistani firms. A sample of 100 non - financial firms listed on Karachi Stock Exchange for the period of 2005 – 2009. The study found a positive relationship between profitability and working capital management and concludes that efficient working capital management plays an imperative role for the enhancement of profitability of the firms.

Another issue addressed in the literature is whether efficient working capital management necessarily impacts on firm performance. In this regard, studies (Onwumere, I be and Ugbam (2012),) indicate that efficient working capital management increases performance. Indeed, the results from Gosh and Maji documented in Raheman and Nasr, 2007) show that Indian manufacturing companies performed poorly in terms of profitability in the period 1992/1993 to 2001/2002 because of inefficient working capital management practices. In the study by Christopher et al (2009), a 1% increase in current ratio, current asset to operating income, cash turnover ratio and leverage decreased the profit of 14 corporate hospitals in India by 10%. Also, Pandey (2007) find that 131 Athenian firms studied increased their profits by managing efficiently their cash conversion cycles and keeping each of the different components (account receivables, account payables, inventories) to an optimum level.

In summary, much of the evidence from the empirical literature suggests an inverse relationship between firm performance on one hand and cash conversion cycle, inventories conversion period and receivable conversion period on the other hand. Also, majority of evidence suggest a direct relationship between payable deferral period and firm performance. However, some few studies report opposite direction of influences between the working capital variables and firm performance. It is therefore an issue of interest to determine whether and how the working capital variables impact on the performances of Nigerian manufacturing companies. (Onodje, 2014).

2.0 Research Methodology

This study was carried out based on historical panel data analysis. The data were analyzed

with a view to see the effect of working capital management practices and its effects on profitability of food products Nigerian firms listed on the Nigerian stock Exchange for a period of five years from 2009 – 2013. The data for this study is collected using the non-survey method. This is due to the fact that the accounting information required for this study is easily obtainable from the published annual reports and accounts. Accordingly, relevant balance sheet and profit and loss items: the inventory and receivables conversion periods, current ratio, creditors' payment period of the sampled companies are the variable to be studied in this work.

3.1 Population and sample size

The population of this study is made up of all the quoted Nigerian food product companies quoted on the Nigerian Stock Exchange, their years of Incorporation and years of listing. See appendix A.

3.2 Sample Size and Sampling Techniques

Sample is a group to select for testing. The study of the entire population would have been desirable, however, considering the population itself, research approach and researcher's knowledge on the topic, nine (9) out of twenty-one (21) companies will be sampled as a fair representation of the population with a view to testing the sample and using the result obtained as a basis for the formation of opinion on the entire population. As such, the sampling ratio will be 9/21 x 100 = 42%. And this will provide required information that will be generalized to the entire food and beverages companies listed in the Nigerian Stock Exchange. See Appendix A.

3.3 Variables

The statistical method of GLS regression analysis was employed in the conduct of this study. This technique of data analysis is used in ascertaining the effects of the independent variables on the dependent variable. Choice and selection of variables is influence by the past research and different study conducted by different scholars on working capital management.

3.3.1 The dependent variable and its measurement

The dependent variable in this study is the companies' profitability. This is in harmony with the works of Afza and Nazir (2007), and Falope and ajilore (2009), the return on assets was adopted as proxy for profitability. For the purpose of this study return on assets is defined as net income before taxes by total assets consistence with the work of Dong and Su (2010).

3.3.2 The independent variables and their measurements

The independent variables of Average Collection period, Average Payment Period as well as inventory turnover period as measures of working capital management, were commonly used in previous studies of Padachi (2006), Raheman and Nasir (2007), and Falope and Ajilore (2009), and the Current Ratio being the traditional measure of liquidity as another variable. These are the key variables that influence working capital management.

The independent variables have been computed as follows:

$$\text{Inventory Turnover Period} = \frac{\text{Average Inventory X 365}}{\text{Cost of Sales}}$$

$$\text{Average Collection Period} = \frac{\text{Average Debtors X 365}}{\text{Sales}}$$

$$\text{Average Payment Period} = \frac{\text{Average creditors X 365}}{\text{Cost of Sales}}$$

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

3.3.3 Control Variables

In order to have an appropriate analysis of the effect of working capital management on the profitability of firms, different studies have incorporated the use of other variables which also affect firm's profitability. The study takes into consideration one control variable. The measure of the natural logarithms of total assets of the companies is adopted for size as one of the control variables. This is consistence with the works of Owolabi and Alu (2012), Dong and Su (2010).

3.4 Model Specification

In line with the previous researches the researcher adopts the model of Hamid and waqar (2013) in determining the effect of

working capital management on corporate profitability among Nigerian food product companies as follows:

$ROA = a + \beta 1$ (ITP) + $\beta 2$ (ACP) + $\beta 3$ (APP) + $\beta 4$ (CR) + $\beta 5$ (LOS) +ε

Where:

ROA = Return on Assets
ITP = Inventory turnover period
ACP = Average collection period
APP = Average payment period
CR = Current ratio
LOS = log of total assets (size of firm)
a = Represent the fixed intercept element
ε= is error term

4.0 Results and Discussion

The statistical software of Stata (version 12) was used to analyse the relationship between variables of the study. Descriptive statistic merely represents the statistical attributes of the variables in the study model. Table 3 below provides such statistics. All the variables were computed from the relevant balance sheets and income statements of the sampled companies.

Table 3: Descriptive Statistic of Variable

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	45	12.05311	6.421941	2.16	32.01
ITP	45	57.87911	64.20508	10.93	256.88
ACP	45	37.206	47.82626	4.17	248.75
APP	45	601.95111	79.40967	7.74	519.26
CR	45	1.579333	.5860554	.04	2.51
LOGSIZE	45	7.431778	.6620124	4.82	8.35

Source: Generated by the researcher from the Annual Reports and Accounts of the sampled companies, using Stata (version 12).

Table 3, above reveals that the return on assets of the nine food product companies over the five year period ranged from a positive return of 216% to a maximum of 32%. This means that for every one Naira worth of net investment, the sector had at worst made a profit of N2.16 and had at best earned a maximum of N0.3201. While it takes an average of 57 days to convert inventories into sales others could not turn inventories into sales till after 256 days. The credit period the companies granted their clients averaged 37 days while they paid their creditors in 601 days on the average, whereas, their debtors could remain outstanding for a maximum of 248 days. The current ratio reveals that firms' investment in current assets covered only 158% and current liabilities with a 59% variability range.

In an effort to establish the nature of the correlation between the dependent and the independent variables, and also to ascertain whether or not multi-collinearity exists as a result of the correlation between variables, table 4 is incorporated for the purpose of analysis. The correlation matrix in table 4 provides an insight into which of the independent variables are related to the dependent variable.

Table 4: Correlation Matrix

	ROA	ITP	ACP	APP	CR	LOGSIZE
ROA	1.0000					
ITP	0.0291	1.0000				
ACP	-0.1405	0.3700	1.0000			
APP	0.0252	0.4415	0.6408	1.0000		
CR	0.1358	-0.1209	0.0277	0.0497	1.0000	
LOGSIZE	0.0899	-0.3170	-0.2715	-0.2356	0.1654	1.0000

Source: Generated by the researcher from the Annual Reports and Accounts of the sampled companies, using Stata (Version 11)

The correlation matrix as per table 4 above shows the relationship between all pairs of independent variables used in the regression model. It reveals that all the independent variables have positive correlation with the dependent variable with exception of ACP, even though some of these components of working capital contribute insignificantly to profitability of companies. The values are on the diagonal are all 1.0000 which shows that each variable is perfectly correlated with itself. Though, all the independent variables have a positively correlated with ROA with exception of ACP, this shows that as the ITP, APP, CR, LOGSIZE increases the profitability of the firms increases and vice versa. On the other hand, the negative relationship that exists between the ACP, and ROA indicate that there is an inverse relationship between the ACP and the profitability.

The following table represents the results of TV and VIF for the working capital components.

Table 5: Multicollinearity Test

Variable	VIF	1/VIF
APP	1.86	0.536459
ACP	1.76	0.568500
ITP	1.35	0.739429
LOGSIZE	1.17	0.851249
CR	1.05	0.949109
Mean VIF	1.44	

Source: Generated by the researcher from the Annual Reports and Accounts of the sampled companies, using Stata (Version 12).

From the table above TV ranges from 0.536459 to 0.949109 which suggests non multi-collinearity feature. Multi-collinearity feature exists when the value of TV is less than 10. The VIF which is simply the reciprocal of TV range 1.05 to 1.86, this indicates of multi-collinearity.

Table 6: Regression Result

Source	SS	df	MS	Number of obs =	45
Model	125.764574	5	25.1529147	F(5, 39) =	8.58
Residual	1688.85354	39	43.3039369	Prob > F =	0.7144
Total	1814.61811	44	41.2413207	R-squared =	0.0693
				Adj R-squared =	0.0500
				Root MSE =	6.5806

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ITP	-.0010859	.0179688	-0.06	0.952	-.0374312	.0352595
ACP	.032501	.027511	1.18	0.245	-.0881471	.0231452
APP	.0070755	.0170567	0.41	0.681	.027425	.041576
CR	1.799704	1.737564	1.04	0.307	1.71485	5.314259
LOGSIZE	1.606531	1.624212	0.99	0.329	4.891811	1.678748
CONS	21.98391	12.43231	1.77	0.085	3.162805	47.13062

Source: Generated by the researcher from the Annual Reports and Accounts of the sampled companies, using Stata (Version 12).

The coefficient of determinations "R-Square" shows 71.44% indicating that the variables considered in the model accounts for about 71.44% change in the dependent variable that is ROA, while the remaining 28.56% is as a result of other variables not addressed by this model.

The results of this regression indicate that the relationship between ROA and ITP is negative and significant, this can be justified with the negative "t" value of -0.06 and p>|t| of 0.952. Likewise the results of negative coefficient of -.0010859 is proving that, an increase in ITP by one more days, while other remaining variables remains constant decreases the profitability of firms. This result is consistent with the findings of Afza and Nazir (2007) and Debi'e (2011). Also the relationship between ROA on one hand and APP on the other hand is negative; this can be justified through the negative "t" value of -0.41, and 0.681 it has been also validate by the negative coefficient of -.0070755. This implies that APP has an inverse relationship with ROA. This result is consistence with the findings Uremadu and Egbide (2012) and Padachi (2006).

However, the relationship between ROA on one hand and ACP, CR and SIZE is positive and significant; this can be vindicated by the positive "t" value of 1.81, 1.04 and 0.99. This shows that the increase in ACP CR and SIZE while other variables remains constant the ROA will increased and vice versa. The findings is consistent with Padachi (2006) and Owolabi and Alu (2012).

5.0 Conclusions and Recommendations

The ability of the firm to continuously operate in longer period depends on how they deal with investment in working capital. The optimal of working capital management could be achieved by firms that manage the tradeoff between profitability and liquidity. The study finds that there is a strong negative relationship between the measures of working capital management including inventory turnover period, and an insignificant negative relationship with average payment period with corporate profitability. The finding indicates that the higher the period it takes firm to convert their inventory into sales the lower the profitability of the firms. Also the negative relationship that exist between average payment period and profitability indicates that the more time it its firms to pay their creditors the less profitability, this shows that either delay payments were left idle not invested for increased yields or profit or that delay payments have made defaults from credit purchases hence most firms cannot meet up demands for supplies of goods ordered by customers due to shortage of stock of raw materials as such reducing sales turnover or volume and profits there-from. The conclusions are in confirmation with Uremadu and Egbide (2012), Afza and Nazir (2007) and Debi'e (2011).

However, the finding indicates that there is a positive relationship between average collection period, current ratio and the size with profitability. That is, as the current ratio and size of the firms' increases the profitability of firms' increases in the same direction, hence, more sizeable firms makes more profit compared with smaller firms. But the relationship between the average collection period and profitability is positive too, indicating that this should not have been the case. This happen as the firms collect their receivable from their debtors they left the fund idle without re-investing the fund to generate returns or profits. The conclusions is in line with Padachi (2006), Uremadu and Egbide (2012) and Owolabi and Alu (2012).

On the basis of the findings of the study the paper conclude that profitability can be enhanced if firms manage their working capital in a more efficient way. These results suggest that managers can create value for their shareholders by reducing the number day account receivable to a reasonable time. On the basis of the findings the study recommends that; cash collected should be re-invested into short-term investments to generate profits and funds left idle in the cash till or excessive liquidity is costly and do not lead to growth in yields or profitability Uremadu and Egbide (2012). The Study also established distorted significant relationship of debtors' collection period (ACP) with the level of corporate profitability among food product firms in Nigeria. Hence, the study recommend that firms should be very apt in collecting proceeds of credit sales from their debtors as good working capital management urges for quick cash collection from credit sales for quick reinvestment in short-term securities in order to boost profitability.

Therefore, it is suggested that further research be conducted on the same topic with different sector or industry, and extending the years of the sample.

References

Adegbie, F. F. (2012). E-Business Conflict Resolution: Working Capital Management in Resolving Profitability

Distress in a Profit Making Organization. *British Journal of Economics, Finance and Management Sciences, 4(2), 81-94.*

Afza, T. & Nazir, M. S. (2007). "Is it better to be aggressive or conservative in managing working capital?" Journal of Quality and Technology Management, Vol 3, No. 2, 11-21.

Afza, T., & Nazir, M. (2009). Impact of Aggressive Working Capital Management Policy on Firms' Profitability. *The IUP Journal of Applied Finance, 15(8), 20-30.*

Ajo, O. S. & Adebayo, A. S. (2012). The Working Capital Management As A Financial Strategy. *Asian Journal Of Business And Management Sciences*, 01-08.

Charitou, S. M., Elfan, M. & Lois, P. (2010). the effect of Working Capital Management On Firm'S Profitability: Evidence From An Emerging Market. *Journal Of Business And Economic Research Vol.8 No.12*.

Deloof, M (2003), "Does Working Capital Management Affect Profitability of Belgian Firms?" Journal of Business, Finance and Accounting, Vol. 30, No. 3-4, pp. 573-587

Dong, H. P & Su, J. (2010). "The relationship between working capital management and profitability: A. Vietnam Case". International Research Journal of Finance and Economics 49: 59-67.

Egbide, B. (2009): "Working Capital Management and Profitability of Listed Companies in Nigeria"; *Nigeria Research Journal of Accountancy (NRJA), 1(1), 44-53.*

Eljelly, A.M.A (2004), "Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market", International Journal of Commerce and Management, Vol. 14, No. 2, pp. 48-61.

Eljelly, A.M.A (2004), "Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market", International Journal of Commerce and Management, Vol. 14, No. 2, pp. 48-61.

Falope, O. I. & Ajilore, O. T (2009). "Working capital management and corporate profitability: evidence from panel data analysis of selected quoted companies in Nigeria". Research Journal of Business Management 3(3): 73-84.

Garcia–Teruel, P. J. & Martinez-Solano, P. (2007). Effects of Working Capital Management on SME Profitability. *International Journal of Managerial Finance,* 3(2), 164 –177.

Gill, A., Biger, N. & Mathur, N. (2010). The relationship Between Working Capital Management and Profitability: Evidence from the United States. http://astonjournals.com/bej accessed on 06/012/2013

Hamid B. & Waqar A. (2013). "Does efficient working capital management enhance profitability of Pakistani Firms? Management and Administrative Sciences review, Vol. 2, 715-720.Iran" World Applied Sciences Journal 12(7) pp. 1093-1099.

Lazaridis I. & Tryfonidis D. (2006). "Relationship between working capital management and profitability of listed companies in the Athens stock exchange". Journal of Financial Management and Analysis, 19, 26-25.

Napompech, K. (2012). Effects of Working Capital Management on the Profitability of Thai Listed Firms. *International Journal of Trade, Economics and Finance, 3(3),* 227-232

Nobanee, H & AlHajjar, M. (2009). Working Capital Management, Operating Cash Flow and Corporate Performance. http://ssrn.com/abstract=*1471236* accessed 16/12/2013

Oladipupo, A. O & Okafor, C. A. (2013). "Relative contribution of working capital management to Corporate profitability and Dividend payout ratio: Evidence from Nigeria". International Journal of Business and Finance Management Research.2053-1842, pp 11-20.

Onodje, M. A. (2014). working Capital Management And Performance Of Selected Nigerian Manufacturing Companies. *Global Journal Of Management And Business Research: B Economic And Commerce*, 1-10.

Onwumere J. U. J, Ibe I. G. & Ugbam O. C (2012). "The impact of working capital

management on profitability of Nigerian Firms: A preliminary Investigation". European Journal of Business and Management. Vol. 4 No. 15, 2222-2839.

Owolabi, S. A. & Alu, C. N. (2012). "Effective working capital management and profitability: A study of selected quoted manufacturing companies in Nigeria". Economic and Finance Review, Vol. 6, 2057-0401, pp 55-67

Padachi, K. (2006). Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritanian Small Manufacturing Firms. *International Review of Business Research Papers, 2(2), 45 – 58.*

Padachi, K. (2006). Trend in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms, International Review Of Business Research Papers, Vol. 2, No. 2, pp 45-58.

Pandey, I. M. (2008). *Financial Management.* Ninth Edition, Vikas Publishers, Delhi, India.

Panigrahi, A. K. (2013). Cash Conversion Cycle and Firms' Profitability – A Study of Cement Manufacturing Companies of India. *International Journal of Current Research, 5(6), 1484-1488.*

Pouraghajan, A., Rekabdarkolaei, E. A. & Shafie, M. (2013). Investigation the Effects of Working Capital Management and Capital Structure on Profitability and Return on Assets (Case Study: A Selection from the Automotive Companies in Iran). *Journal of Basic and Applied Scientific Research, 3(4), 847-854.*

Raheman A. & Nasr M. (2007). "Working Capital Management And Profitability – Case Of Pakistani Firms". International Review of Business Research Papers, 3 (1), 279-300.

Raheman, A. & Nasr, M. (2007). Working Capital Management and Profitability – Case of Pakistani Firms. *International Review of Business Research Papers 3(1), 279 – 300.*

Rahman M. M. (2011). "Working capital management and profitability: A study on Textiles Industry" ASA University Review, Vol.5 No. 1.

Ray, S. (2012). Evaluating the Impact of Working Capital Management Components on Corporate Profitability: Evidence from Indian Manufacturing Firms. *International Journal of Economic Practices and Theories, 2(3).*

Sabo, M. (2012). The Effect of Working Capital Management on Corporate Profitability. Kano: Seminar presented in Department of Accounting, Bayero University Kano

Shah, S. Z. A. & Chaudhry, S. N. (2013). Relationship between Cash Conversion Cycle and Profitability: Moderator Role of Firm Size. 2nd International Conference on Management, Economics and Finance (2nd ICMEF 2013) proceeding.

Uremadu S. O., Egbide B. & Enyi P. E. (2012). "Working capital management, Liquidity and Corporate profitability among quoted firms in Nigeria Evidence from productive sector". International Journal of academic Research in Accounting, Finance and Management Sciences, Vol. 2 , 2225-8329.

Usama, M. (2012). "Working capital management and its effect on firm's profitability and liquidity: in other foods sector of Karachi Stock Exchange". Arabian Journal of Business and Management Review (Oman Chapter) Voi. 1, No. 12.

Zubair A. & Muhammad Y. G. (2013). "Impact of working capital management on profitability: A case of the Pakistan Cement Industry". Interdisciplinary Journal of Contemporary Research in Business. Vol. 5 No. 2.

APPENDIX A

Table 1: population of the study

S/N	Name Of Company	Date Listed
1	Big Treats plc	6th Dec, 2007
2	Dagote flour mills plc	4th Feb, 2008
3	Dangote Sugar Refinery plc	8th March, 2007
4	Flour mills of Nigeria plc	14th Aug, 1979
5	Honeywell flour mills plc	20th Oct, 2009
6	Multi-trex Integrated foods plc	1st Nov, 2010
7	Northern Nigeria Flour mills plc	1978
8	National Salt company of Nigeria Plc	20th Oct, 1992
9	P. S Mandrides Plc	Feb, 1979
10	UTC Nigeria Plc	31st Jan, 1972
11	Union Dicon Salt Plc	23rd Sept, 1993
12	Nestle nig plc	20th April 1979
13	P.Z CUSSION PLC	18TH feb 1948
14	Unilever Nig Plc	Sept 1973
15	Guiness Nig plc	1965
16	International Breweries	1995
17	Jos International Breweries	30th Mar 1992
18	Nig Breweries	8th Sept 1973
19	Primier Breweries	1988
20	Seven Up	1986
21	Cardbury Nig plc	1976

Generated by the researcher from NSE Fact book 2014/2015

Table 2: Sample Size

S/N	Name Of Company	S/N	Name Of Company
1	Flour mills of Nigeria plc	8	Cadbury Nigeria plc
2	Dangote flour mills plc	9	Dangote Sugar Refinery plc
3	Seven-up bottling company plc		
4	UTC Nigeria plc		
5	Honeywell flour mills plc		
6	National salts Company of Nigeria plc		
7	Nestle Nigeria plc		

Source: Generated by Researcher from Table 3.1