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Working Capital Management Policy and The Financial Performance of Food and Beverages Companies in Nigeria

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Abstract

This study is set to examine the relationship between working capital management policy and profitability of quoted food and beverages companies in Nigeria. The population comprises a sample of ten (10) food and beverage companies quoted on the Nigerian Stock Exchange. The study used secondary data for a period of ten (10) years (2005-2014) and was analyzed using descriptive and inferential statistics with the aid of Stata version 13. Two research hypotheses were formulated and tested. It was found that, there is no significant relationship between receivable collection period (RCP) policy and profitability of quoted food and beverage companies in Nigeria. However, it was recommended that the management should identify the level of inventory which allows for uninterrupted production but reduces the investment in raw materials and minimizes reordering cost and hence increases profitability. The management should reduce their RCP from 53 days on the average to at most 30 days by instituting adequate control and flexible credit policy.

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INTRODUCTION

Working capital management refers to all aspects of administration of investment in current assets and all the sources of financing current assets aimed at justifying a balance between the returns and liquidity risk (Pandey, 2007). It is a cardinal part of the overall corporate strategy of wealth maximization. It constitutes business investment in short-term assets that changes severally within one accounting period and requires serious attention and planning from the management of a business entity. Working capital management has three basic forms; aggressive policy, conservative policy and average policy.

The continued existence, survival, growth and stability of most corporate bodies are highly dependent on the efficiency and effectiveness of its management. This could be measured by the management's ability to combine all the necessary materials for optimal and efficient actualization of the set objectives within the organization at a stipulated time. In any organization, cash is one of the nerve center, which determines to a large-extent, the growth, and survival among other competing firms. As a result, it becomes paramount for any management to give proper attention to the effective planning of its working capital in order to withstand any form of global competitive challenge. The management decides the best proportion of its investment on both fixed and current assets and finally the firm's liability level to enable improvement and correction of any possible imbalances in the liquidity position of the firm.

Working capital management is an important tool in financial management this is so, because most of the financial managers spend a great deal of their time on working capital management decisions (Brigham & Houston, 2003). According to Ali (2011), Proper working capital management improves firms' profitability and liquidity position, and thus increasing the market value of the firm .Working capital management refers to all management decisions and actions that influence the size and effectiveness of the working capital (Kaura, 2010). It is a managerial accounting strategy which focuses on maintaining efficient levels of current assets and current liabilities which ensures that a firm has sufficient cash flow in order to meet its short-term obligations. Working capital management is an essential part of financial management and contributes significantly to a firm's wealth creation as it directly influence organizational profitability (Naser, 2013).

The most important issue in working capital management is the maintenance of liquidity in the day-to-day operations of the firm. This is crucial so as to prevent creditors and suppliers whose claims are due in the short-term from exerting unwarranted pressure on management and thus ensure the smooth running of the firm. This emphasizes that, the main objective of Working capital management is to ensure the maintenance of satisfactory level of working capital in a way that will prevent excessive or inadequate availability of working capital (Filbeck and Krueger, 2005). It is equally important for us to note that inefficient working capital management may not only reduce profitability but also lead to financial crises and its resultant effects. In addition, sound working capital management ensures that organizations have the ability to meet their short-term liabilities adequately as at when due.

Food and beverage industries are increasing in Nigeria, yet the level of failure in their services indicate that lack of effective and efficient management of working capital components (Receivables, Payables, Cash, Inventory and Liquidity) seems to be more pronounced. Some of the food and beverage companies that are still in business and listed on the Nigerian Stock Exchange (NSE) find it difficult to pay dividend to their shareholders. Notable examples include Champion Breweries, which has not paid dividend since 1988 and Golden Breweries since 1997 (Salaudeen, 2001). As a result, some Nigerian workers were forcefully disengaged from their services. These actually add to the unemployment figures and other social vices which Nigeria is currently facing. Despite the above scenario, companies post huge figures in respect to receivables, payables, inventory, cash and liquidity.

According to Stephen (2012), documents have evidenced that most of the business organizations do not hold the right amount of inventory, receivables, cash and liquidity position; as a result, the companies are unable to meet their

maturing short term obligations and their operational needs. Also, insufficient management of these components of working capital means that a firm is unable to undertake expansion project and increase its sales, hence limiting the growth and performance of the business. Rahman &Nasr (2007) are of the opinion that the management of working capital directly affects liquidity and organizational profitability. Akinsulire (2005) postulates that "no matter the amount spent on equipment and machinery, building and so on, if the ingredients required for production are not efficiently managed, the entire amount committed to the project will become a waste". This opinion suggests that managing the working capital components is so vital to the financial wellbeing of any organization in order to ensure sustainability and the overall organizational profitability. It is as a result of the above problem that the researcher deemed it necessary to embark on this study; in order to assess the impact of working capital management and profitability of the listed food and beverage companies in Nigeria.

Researchers such as Deloof (2003), Padachi (2006) Mehta (2009) Samiloglu and Demirgunes (2008) had carried out researches on working capital management on the financial performance of firms in other countries. Their findings however, reveal that there is a significant relationship between working capital management policies such as inventories period, accounts payable period, cash conversion cycle and accounts payable period and financial performance of firms.

Abubakar (2012), in his studies on Working Capital Management and firms' performance of selected companies in the pharmaceutical firms and twelve (12) manufacturing companies in Nigeria over the period of five (5) years and within the frame of the studies reviewed respectively. This study, working capital management and profitability of the listed food and beverage companies in Nigeria, covered a period of ten (10) years, thus suggesting a huge gap for this study to bridge.

Therefore, this study intends to bridge the aforementioned gaps in the literature. The study will serve as an update to the previous work by employing large sample size, reviewing recent and relevant literature, extending the study period for which data is available and by conducting various econometric test and treatment for data. It is against this background that, this study intends to assess the impact of working capital management on profitability of food and beverage companies in Nigeria. But more specifically, the study intends to achieve the following objectives; i. Assess the relationship between receivable collection period (RCP) policy and profitability of the listed food and beverage companies in Nigeria; ii. Determine the relationship between inventory conversion period (ICP) policy and profitability of the listed food and beverage companies in Nigeria.

In a studies carried out by (Egbide, 2009; Falope and Ajilore, 2009; Raheman et. al., 2010; Mathuva, 2010), it was found that negative relationship exists between Debtor's collection period and profitability. On the contrary, the studies conducted by (Akinlo, 2011; and Uremadu et al., 2012) revealed that debtors collection period has positive relationship with profitability. Therefore, it is inferred from the above that the early the receivables are collected, the better for the company because early collection of debts would make cash available and in turn increase turnovers and this will eventually increase the profit, provided operating expenses are properly controlled.

However, in a developing economy like Nigeria where there is difficulty in accessing finance, firms may have to increase the average days in which debts are collected in order to retain their customers and keep them loyal. This may be one of the reasons why (Akinlo, 2011; and Uremadu et al., 2012) found a positive relationship between Debtors collection period and profitability. The danger in having long debtors' collection period is that it leads to high bad debts. As much as possible, high bad debts should not be allowed in the management of working capital management because it may lead to liquidity problems which may lead to the total collapse of the business.

It was found out in the works of (Mathuva, 2010; Akinlo, 2011; and Uremadu et al., 2012) that there is a positive relationship between inventory conversion period and profitability. On the other hand, the works of (Egbide, 2009; Falope and Ajilore, 2009; Raheman et al., 2010; and Huynh and Jyh-tay, 2010) found that there is a negative relationship between inventory conversion period

and profitability. However, in the work of Amarji et al. (2010) it was concluded that number of days inventory is held has no significant relationship with profitability. Inventory in manufacturing firms is inevitable, and it must be properly managed. The number of days it takes a firm to turnover its stocks is germane to its success. Ideally, the shorter a firm's inventory conversion period, the more profit the firm makes because short inventory conversion period will lead to high turnover which will eventually lead to high profit. In a firm where there is positive relationship between inventory conversion period and profitability, there is possibility of having idle stock which will eventually have negative effect on the firm's profitability.

Akoto, Awunyo-Vitor&Angmor (2013) analyzed the relationship between working capital Management practices and profitability of listed manufacturing firms in Ghana. The study used data collected from annual reports of all the 13 listed manufacturing firms in Ghana covering the period from 2005-2009. Using panel data methodology and regression analysis, the study found a significant negative relationship between Profitability and Accounts Receivable Days. However, the firms' Cash Conversion Cycle, Current Asset Ratio, Size, and Current Asset Turnover significantly positively influence profitability. The study suggests that managers can create value for their shareholders by creating incentives to reduce their accounts receivable to 30 days. It is further recommended that, enactments of local laws that protect indigenous firms and restrict the activities of importers are eminent to promote increase demand for locally manufactured goods both in the short and long runs in Ghana.

Rahman and Nasr (2007) studied the effect of different variables of working capital management including average collection and inventory days, cash conversion cycle, and current ratio on the net operating profitability of 94 listed Pakistani firms. Using regression analysis and data covering the period from 1999-2004, the authors find a significantly negative association between working capital management variables and profitability of the firms. The authors further report a significantly negative relationship between corporate debt and profitability but a significantly positive association between size and profitability. The implications of these findings are that prudent management of working capital, reasonable levels of debt use and increase sales are all very crucial in enhancing the profitability of the modern firm.

Kesseven (2006) examined the trends in Working Capital Management and its impact on firms' performance in Mauritian Small Manufacturing Firms. According to him, the trend in working capital needs and profitability of firms were examined to identify the causes for any significant differences between the industries. The dependent variable, return on total assets was used as a measure of profitability and the relation between Working Capital Management and corporate profitability was investigated for a sample of 58 small manufacturing firms, using panel data analysis for the period 1998 – 2003. The regression results show that high investment in inventories and receivables was associated with lower profitability. The key variables used in the analysis were inventories days, accounts receivables days, accounts payable days and cash conversion cycle. A strong significant relationship between Working Capital Management and profitability had been found in previous empirical work. An analysis of the liquidity, profitability and operational efficiency of the five industries showed significant changes and how best practices in the paper industry have contributed to performance. The findings also revealed an increasing trend in the short-term component of working capital financing.

Similarly, Mathuva (2010) examined the influence of working capital management components on corporate profitability of 30 Kenyan listed firms. Using panel data methodology and data covering the period from 1993-2008, the study finds a significantly negative relationship between accounts collection days and profitability, a significantly positive association between inventory conversion period and profitability and a significantly positive relationship between average payment days and profitability. The findings of this study therefore confirm the traditional view of efficient working capital management and its effects on profitability.

Deloof (2003), in his study on the relationship between working capital management and corporate profitability, used a sample of 1,009

large Belgian non-financial firms for the period of 1992-1996 selected randomly. He used correlation and regression analysis to analyze the secondary data collected from the sample. The result indicated that there is a negative relationship between profitability that was measured by gross operating income and cash conversion cycle, number of days of account receivables, inventories. He suggested that, a manager may increase profitability by reducing the number of days account receivables and inventories. Also, according to his analogy, less profitable firms wait longer to pay theirs.

Lazaridis and Tryfonidis (2006) examined the relationship between profitability and working capital management of 131 firms listed on the Athens Stock Exchange. Using regression estimation approach and data covering the period from 2001-2004, the authors find a statistically significant inverse relationship between profitability, measured as gross operating profit and the cash conversion cycle, accounts receivables days and inventory days. They also observe a significantly positive association between profitability and accounts payable days. This study re-emphasizes that, firms can enhance profitability by prudently keeping their working capital management components (accounts receivables, accounts payables, and inventory) within optimal levels.

On the contrary, Sharma and Kumar (2011) found results which significantly depart from the various international studies conducted in different markets that Working Capital Management and profitability is positively correlated in Indian companies. Their study reveals that inventory of number of days and number of day's accounts payable is negatively correlated with a firm's profitability, whereas, number of days accounts receivables and cash conversion period exhibit a positive relationship with corporate profitability.

Moreover, Alipour (2011) examined the relationship between working capital management and corporate profitability in Iran using a sample of 1063 years observation for companies listed in Tehran Stock Exchange for a period of 6 years (2001-2006). Cash conversion cycle was used as a major tool of measuring working capital management efficiency. The results indicated that there is a significant negative relationship between cash conversion cycle, number of days accounts receivable and inventory turnover in days and corporate profitability. And, there is a direct significant relationship between numbers of days of accounts payable. The study, therefore, implied that managers can create value for their shareholders by decreasing accounts receivable, inventory and cash conversion cycle.

Similarly, Dong (2010) examined working capital management effects on firms' profitability of listed Vietnamese firms from 2006-2008. The authors find that,a significantly negative relationship exists between profitability, measured as gross operating profit and the components of cash conversion cycle (inventory days, and receivable days). Furthermore, the study also observes a statistically significant positive association between profitability and accounts payable days. These findings imply that increasing firms' inventory and receivable days lead to a decreasing profit while significant financial success can be attained with increased payable days.

Akinlo (2011) conducted a study on "The Effect of Working Capital on Profitability of Firms in Nigeria. The result shows that sales growth, cash conversion cycle, account receivables and inventory period affect firm positively, while leverage and account payable affect firm profitability negatively. In another study of selected firms in Nigerian shows that firm's profitability is reduced by lengthening the number of day's accounts receivable, number of days of inventory and number of days accounts payable. The result shows that shortening the CCC improves the profitability of the firm.

Egbide (2009) and Falope and Ajilore (2009) in their studies on Working Capital Management and profitability of listed companies in Nigeria, made a cross sectional survey design of some quoted companies between 2005 – 2006 and 1995 - 2005. The data were analyzed using the ordinary least square regression analyses on one hand and panel data econometrics in a pooled regression on the other hand; and reveal that "all the components of Working Capital Management (ICP, DCP, CPP and CCC) affect profitability at varying levels of significance with debtor's collection period having the highest and significant impact," which is negative. Their study also revealed an insignificant

variation in the effects of Working Capital Management between small and large firms and suggests therefore that, managers can create value for their shareholders if they can manage their working capital in more efficient ways by proper handling of each working capital component and keeping them at optimal levels as well as reducing the debtors' collection period and inventory conversion period. The findings of Charitou, Elfani and Lois (2010) and Al – Debi'e (2011) support these findings but, Charitou et al added that efficient, utilization of the firm's resources leads to increased profitability and reduces volatility which leads to reduction in default risk and thus improves the firm's value. Hence, if the components of cash conversion cycle are efficiently managed, they will add value to the firm since they increase the firm's profitability.

Ajilore and Falope (2009) conducted a study on "effect of Working Capital Management on profitability performance". Using a sample of 50 Nigerian non-financial firms listed on the Nigerian stock exchange for the period of 1996-2005. The sample was selected randomly. They used panel data econometrics in pooled regression, where time series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the Average Collection Period, Inventory Turnover in days, Average Payment Period and Cash Conversion Cycle.

Onwumere et. al (2012) investigated the impact of working capital policies of Nigerian firms on profitability for the period, 2004-2008. Adopting the aggressive investment working capital policies and aggressive financing policies as independent variables and return on assets as dependent variable and controlling for size and leverage, the study revealed that aggressive investment working capital policies of Nigerian firms have a positive significant impact on profitability while aggressive financing policies have a positive non-significant impact on profitability. The findings from this study indicate that firms pursuing aggressive investment working capital policy will become risky in the long-run because as profitability increases; the firm grows and the amount of outsiders' contributions also increases. The result also indicates that as the firm grows and outsiders' contribution increases; the use of aggressive financing working capital policy decreases the profitability of the firm. Appropriate management of working capital is therefore essential if the firms are to achieve their objective of improved profitability and value creation for shareholders.

From the above review therefore, we can conclude that there are many issues arising from the results relating to Working Capital Management, liquidity and profitability across the globe. Some of the findings show that there is a positive relationship between Working Capital Management and profitability while others shows a negative relationship with profitability. It is in line with this that this study intends to find out the reasons behind these fluctuations in terms of findings and also to see its applicability in Nigeria, considering the various challenges in the Nigerian economy in terms of global/financial crises, inflation, insecurity, the economic recession, over dependence on oil and nonchalant attitudes towards the manufacturing sub- sector of the economy, among others.

METHODS

Given the objectives and the nature of the problem, panel and correlation research design are deemed more appropriate for the study. This is due to the fact that all the data were collected from ten (10) years financial statements of the sampled companies and the relationship between dependent variable (ROA) and independent variables (RCP, and ICP,) established in selected firms in the food and beverage companies sub-sector in Nigeria .The selection of panel research design is due to the fact that the variables that were measured are longitudinal in form and cut across various firms within the food and beverage companies listed on the NSE. The correlation design is used to examine the relationship between all the variables under consideration. The reason for the selection of correlation research design in this study is informed by the fact that, the purpose of the design is to investigate the relationship between variables and to establish the impact of one variable (independent variable) on another (dependent variable), so as to establish a causal relationship or otherwise among the variables. This is in line with the objectives of

the study. Data was collected on yearly basis per firm and tabulated, arranged and processed in such a way that the relationships between dependent and independent variables could be reached so as to make inferences.

The population of this study comprises all the food and beverage companies listed on the Nigerian Stock Exchange, covering a period of 10 years (2005 - 2014). The period was selected in order to meet up with the criteria set for this study and also to add on what other researchers have done in the field of working capital management. However, there were twenty eight (28) of them that were listed; thus, two hundred and eighty (280) annual reports were provided. The twenty eight (28) companies were determined from the list of food and beverage companies listed on the Nigeria Stock Exchange fact book as per 2010/2011 and 2012/2013. As at the time of conducting this research, the financial statements of 2015 and 2016 were not available. The choice of quoted companies is due to the availability and quality of data considering the fact that all publicly listed companies are statutorily required to submit periodical data to the NSE as well as published audited annual reports and accounts.

In the course of this research work, it was not feasible to study the whole population. Some elements of the population were therefore selected as representatives and thus constituted the sample. For the purpose of this study, the sample size was made up of ten (10) companies out of the total of twenty eight (28) companies listed on the Nigeria Stock Exchange (NSE) fact book as per 2010/2011 and 2012/2013 irrespective of their location. The sample size was supposed to be 100% of the population but some the companies having missing or no financial reports were removed, those delisted before 2014 and those listed after 2005 were not captured.

Based on the aforementioned criteria, only 10 food and beverage companies listed on the NSE qualified to be the sample of this study. This sample was drawn using judgmental sampling technique as a means of meeting the criteria set for the companies that were studied in terms of getting the required data for the study. The breakdowns of the sampling technique are as follows: The numbers of companies having missing or no financial reports are seven (7). The number of delisted companies before 2014 are five (5) while those listed after 2005 are six (6).Therefore, the total number of companies with missing or no financial reports, delisted before 2014 and listed after 2005 are eighteen (18) in number, respectively. This can be represented in a simple mathematical format as below; hence the sample size was therefore gotten as:

$$n = TC - (C_{NF} + C_{2014-t +} C2005_{+t})$$

Where:

n = Sample Size

TC = Total number of companies listed on the NSE fact book (as per 2010/2011 and 2012/2013).

C_{NF} = total number of companies with missing or no financial reports

C_{2014-t} =total number of companies delisted before 2014

C_{2005+t} = total number of companies listed after 2005.

Therefore,

$$n = 28 - (7 + 5 + 6) = 28 – 18 = 10$$

Sources and Method of Data Collection

The study used secondary data from secondary sources, which were gotten from financial statements of all the sampled companies of the study for the period often (10) years (2005 – 2014). The use of secondary data in this study is informed by the fact that the study is based on a quantitative research methodology that requires quantitative data to test the research hypothesis. The data of the study have been collected from secondary sources only (audited financial reports of the 10 sampled companies). In this study, return on asset (ROA) is used as a measure of profitability while the independent variables used to proxy working capital management include receivable collection period (RCP), and inventory conversion period (ICP) .The various data were sourced based on the variables used in this study.

Data Analysis Techniques

This study used descriptive statistics and econometric technique of panel data analysis. The results are divided into two to actually capture this classification. The descriptive analysis covers the mean, maximum, minimum, standard deviation, to

evaluate the variables used in the study. Multiple RegressionAnalysis takes in the form of Fixed Effects Model (FEM), Random Effects Model (REM) and Ordinary least Squares (OLS) Model to establish the most appropriate regression that is most suitable for the data used in this study. Appropriate tests such as normality test were conducted in order to know whether the data follows a normal probability distribution in order to apply the appropriate test for the data. Also, Hausman Specification Test was conducted to choose between Fixed Effect (FE) Model and Random Effect (RE) Model. Balanced panel data is used in this study. The study used Random Effects Model to assess the impact of working capital management on profitability using return on asset (ROA) as dependent variable. The independent variables are: receivable collection period (RCP) and inventory conversion period (ICP) .While, firm's Size and firm's Growth are used as control variables to actually augment the model in the study. The analysis was conducted using Stata version 13.

Model Specification

The model used return on asset (ROA) as dependent variable, two (2) independent variables, which include: receivable collection period (RCP) and inventory conversion period (ICP) while firm's size and firm's growth are used as control variables to augment the model. The model below is used to critically assess the impact of working capital management on profitability of the listed food and beverage companies in Nigeria.

$ROAi = \alpha_i + B_{i1}RCP_i + B_{i2}ICP_i + B_{i3}Size_i + B_{i4}Growth_i + l_i$

Where: ROA_i = Return on Asset

RCP_i = Receivable Collection Period

ICP_i = Inventory Conversion Period

$Size_i$ = Firm Size

$Growth_i$ = Firm Growth (in sales)

L_i = Residual Term

α_i = Constant

Bi_{1-4} = Coefficient of independent Variables 1 through 4

Variables Measurement

To assess the impact of working capital management on profitability of the listed food and beverage companies in Nigeria, return on asset (ROA) has been considered as the dependent variable of the study. The explanatory variables used as proxies of working capital management are (i) receivable collection period (RCP) (ii) and inventory conversion period (ICP).While firm's size and firm's growth were used as control variables to augment the model in the study. The dependent and independent variables are measured as follows:

Return on Asset (ROA): The return on assets measures the return on total assets after interest and taxes. It could also be viewed as a measure of firm's ability to employ its assets to generate earnings. The return on assets is the component of operating efficiency (Wild, 2000) and could be measure in any of the two ways: Earnings before interest and tax expense to total assets(EBIT/TA). Profit after tax (Net income) to total asset multiplied by 100(PAT/TA x 100).

This study adopts the second method which gives a better explanation of what is due to the shareholder's of the company.

RCP: Means receivable collection period i.e. average number of days from the sale of goods to collection of resulting receivables. It is computed as [Account Receivables/Sales]*365days (Manyo, 2013). **ICP:** Means Inventory Conversion Period i.e. average number of days needed to convert goods. It is computed as [Inventory/cost of goods sold]*365days (Deloof, 2003).

Size:Firm's size. It is one of the control variables having no linkage with working capital management but frequently used as independent variable in similar studies. It is computed as natural logarithm of total assets.

Growth: Firm's growth (in sales). It is also one of the control variables having no linkage with working capital management but frequently used as independent variable in similar studies. It is computed as: $[Salest_2 - Salest_1] \div Salest_1$. α_1=is constant, β_{i1-4}=coefficient of variables 1 to 4, and L_i=residual term.

RESULTS AND DISCUSSION

Table 4 presents the descriptive statistics results for the dependent and independent variables of the study.

Table 1. Descriptive Statistics of Dependent and Independent Variables

Variables	N	Min	Max	Mean	Std Dev.
ROA	100	-1.31	0.72	0.0961	0.1926471
RCP	100	2.17	1352.58	53.575	143.1696
ICP	100	30.29	604.74	92.7596	70.04523
Growth	100	-1.0	3.34	0.1837374	0.5295485
Size	100	19.61	26.58	24.0079	1.466636

Source: Stata version 13 Output

The descriptive statistics for 10 Nigerian food and beverage companies for a period of ten (10) years from 2005-2014 and for a total 100 firms year observations. The mean value of ROA is 9.61% of total assets. This implies that on the average for each N100 invested in Assets N9.61 was the profit earned. The standard deviation is 19.265%, implying that the value of profitability can deviate from mean to both sides by 19.265%.The maximum value for the ROA is 72% while the minimum is -131% for the industry under consideration. Receivable collection period (RCP) has overall mean of 53 days with a maximum of 3 years and minimum of 2 days. This means that on the average, the listed food and beverage companies in Nigeria do not extend credit to their customers beyond 53days. On the average, food and beverage companies listed on NSE take 92 days (approximately 3 months) to convert their inventories into sales with a standard deviation of 70 days. The maximum time needed to do so is 604 days (approximately 20 months) while the minimum is 30 days.

Table 2. Results of Normality Test

Variables	Obs	Pr(Skewness)	Pr(Kurtosis)	Adj chi2 (2)	Prob> chi2
ROA	100	0.0000	0.0000	-	0.0000
RCP	100	0.0000	0.0000	-	0.0000
ICP	100	0.0000	0.0000	-	0.0000
Size	100	0.0011	0.1901	10.58	0.0051
Growth	100	0.0000	0.0000	61.15	0.0000

Source: Stata version 13 output

The variables of the study are subjected to test for data normality; the essence is to find out if the variables came from a normally distributed population. Table 2 indicates that the data for all the variables are normally distributed, because the p-values are significant at 5% level of significance (ROA, RCP, ICP, from prob> chi2 values of 0.0000, 0.0000 and 0.0000) respectively) .Thus, this clearly shows that the data are normally distributed.

Table 3. Series Correlation (Multicollinearity Test)

	Npatloss	Roa	Rcp	icp	cpp	Growth
NPAT/loss	1					
ROA	0.3422	1				
RCP	-0.2558	-0.0603	1			
ICP	-0.0968	-0.1195	0.099	1		
CPP	-0.2046	-0.3148	0.4846	0.2602	1	
Growth	-0.0766	-0.0103	-0.0463	0.0347	-0.0378	1
Cr	-0.0596	0.0717	0.0426	-0.0983	-0.1594	-0.1101

Source: Stata version 13 output

Table 3 presents the correlation results between working capital management variables (Receivable Collection Period and Inventory Conversion Period) and profitability (ROA) of the listed food and beverage companies in Nigeria. The table shows that there is a significant negative relationship between profitability (ROA) and

receivable collection period (RCP) policy from the correlation coefficient of -0.2558.This result suggests that the more receivable collection period remain outstanding in the sampled of the listed food and beverage companies, organizational profitability decreases. This finding is consistent with prior studies including that of Padachi (2006), Solano (2007), Mathuva (2010), and Naponpech (2012), Deloof (2003), Brigham and Houston (2003) who stress the need of reducing the receivable collection period in order to enhance profitability.

More so, the result from table 3 indicates that there is a negative relationship between profitability (ROA) and inventory conversion period (ICP) from the correlation coefficient of -0.0968.This implies that the profitability of listed food and beverage companies in Nigeria decreases with longer inventory conversion period. The finding is in line with the findings of Makori and Jagongo (2013), Teruel and Solano (2007), Naponpech (2012), Raheman and Nasr (2007).

Test of Hypotheses

This section presents the inferential statistics of collected data purposely to enable inferences to be made from the data. Null Hypotheses are stated followed by the results of the test presented in tabular form and discussions thereafter.

Table 4. Random Effects GLS Regression Results (ROA as a Measure of Profitability)

ROA	Coefficient	Z	P>/Z/	Std Error
CCC	0.0101011	4.39	0.000**	0.0023013
RCP	-0.0027973	-0.67	0.503	0.0041795
ICP	-0.0215119	-2.61	0.009**	0.0082385
CR	3.0058	2.30	0.021**	1.304789
CONS	19.02524	9.62	0.000**	1.977176

*** Significant at 1%, **Significant at 5%, *Significant at 10%

Source: Stata version 13 Output

Hypothesis One

There is no significant relationship between receivable collection period (RCP) policy and profitability of the listed food and beverage companies in Nigeria.

To test whether to accept or reject the null hypothesis, Table 4 is used as reference. RCP is observed to have a negative impact (-0.0027973) on profitability (ROA). The associated p value is shown to be greater than the significance level (0.503 > 0.05), therefore, the null hypothesis is accepted, implying that RCP policy has no statistically significant relationship on profitability of the listed food and beverage companies in Nigeria for the period of 10 years under consideration. Though a negative relationship is said to be established between RCP policy and profitability of the listed food and beverage companies in Nigeria, it is not a major factor to be considered in taking decision in respect to organizational profitability.

Hypothesis Two

Inventory conversion period (ICP) Policy has no significant relationship on the profitability of the listed food and beverage companies in Nigeria.

In reference to Table 4, there exists a negative relationship (-0.0215119) between inventory conversion period (ICP) policy and profitability (ROA) of the listed food and beverage companies in Nigeria over the covered period. This is an indication that when inventory stays long before being sold (ICP), it leads to tied down cash which could be used for the day to day running of the business, therefore, reducing the profitability of these companies and vice versa. To test the hypothesis postulated above, Table 4 is also put in use. The result of the regression indicates that ICP policy has a z value of -2.61 and a p value of 0.009. Since p value (0.009) is < 0.05, the null hypothesis is rejected, showing that inventory conversion period policy has a significant relationship on the profitability of the listed food and beverage companies in Nigeria; hence, ICP policy is statistically significant. This implies that when inventories stay longer before being sold (ICP), it leads to tied down cash which could be used for the day to day running of the business and hence reduces the organizational profitability of these companies for the 10 years period under consideration. Therefore; this study infers that there is significant relationship between inventory conversion period (ICP) Policy and profitability of the listed food and beverage companies in Nigeria.

By implication, ICP policy has a major role to play in determining the organizational profitability of listed food and beverage companies in Nigeria.

CONCLUSIONS

Based on the findings of the study, the following conclusions are drawn for the listed food and beverage companies in Nigeria. Specifically, the study concludes that: There is no significant relationship between receivable collection period (RCP) policy and profitability of the listed food and beverage companies in Nigeria. Conclusively, RCP policy is not a major factor to be considered by the management or managers of the listed food and beverage companies in Nigeria in boosting their profitability. In essence, other working capital management components other than RCP policy should be given more priority to improve on organizational profitability.

There is a significant negative relationship between inventory conversion period (ICP) policy and profitability of the listed food and beverage companies in Nigeria. Therefore, it can be concluded that negative ICP policy impact greatly to the organizational profitability of the listed food and beverage companies in Nigeria. Hence, more attention needs to be given to negative ICP policy as this would reduce cost and maximizes profitability of the listed food and beverage companies in Nigeria. However, any policy of inventory control that would deviate from this should be discouraged categorically.

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