

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

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Abstract

Despite the emphasis placed on cash conversion cycle management, in ensuring manufacturing firm profitability in Nigeria, the management is yet to come on the path of sound profitability and growth. The study examined the effect of cash conversion cycle management on financial performance of listed foods and beverage firms in Nigeria. The expofacto research design was adopted with reliance on secondary data from annual report of listed food and beverage firms. The purposive sampling techniques was employed in selecting the 15 firms out of 23 foods and beverage firms in Nigeria for 2011-2021 financial year. To carry out this objective three method of panel regression estimation was used which is fixed effect by Hausman test which was analyzed using E-views 10. The findings show that cash conversion cycle management has negative significant effect on return of asset. The study concludes that cash conversion cycle management does not contribute the growth of food and beverage firms in Nigeria. The study recommend that management of companies should not give due importance to cash conversion cycle management, and emphasize an optimal working capital level in their respective companies, because of the negative impact of cash conversion cycle on the financial performance on foods and beverage firms in Nigeria.

Keywords: Cash Conversion Cycle Management, Return on Asset, Investor, Manufacturing firms

INTRODUCTION

The stability and survival of a business entity depends majorly on its working capital, which are cash and other related short term assets. These assets are funded by short-term liabilities, thus net working capital is current assets less current liabilities. Working capital management refers to all aspect of administration of current assets and current liabilities. The success of a firm depends largely on its abilities to generate cash more than disbursement. Flow of cash challenges of numerous firms are exacerbated by poor management of finances and specifically inadequate planning of cash requirement (Ystrom, 2010) .Working capital management is important to the financial health of business of all sizes (Padachi, 2006).

The importance is hinged on many reasons; The amount invested in working capital are often high in proportion to the total assets employed and so it is vital that these amounts are used in an efficient way. The management of working capital directly affects the liquidity and profitability of firms and

consequently, its net worth (Yazdanfar, 2014). The nexus between profitability and liquidity is important, because it determines the success or failure of a business firm. If working capital is poorly managed and necessary attention not given, the firm may fail and go bankrupt (Kargar & Bluementhal, 1994). Working capital is a significant determinant for profitability, solvency, and survival of business (Mukhopadhyay, 2004). The higher the comparative proportion of short-term assets, the less, the risk of running out of liquidity, all other outcome being equal (Ehiedu, 2014). Shin and Soenen (1998) argued that shareholders value creation depends on the efficient management of working capital while Smith (1980) opined that profitability and liquidity are the salient goals of working capital management. The primary purpose of efficient management of working capital is to keep sufficient liquidity to sustain operations and to meet obligations (Eljelly, 2004). Hence, efficiency of working capital management is based on the principle of speeding up of collections as quickly as possible and delaying disbursement as slowly as possible (Nobanee & Alhajjar, 2009) in order to minimize the risk of having insufficient funds to pay for short-term liabilities when they fall due. However, the working capital policy of any firm depends on management attitude to risk, high level of working capital are expensive but lower levels of working capital are high risk. Low level of working capital will be cheap to finance and if managed effectively, could increase profitability. Aggressive working capital management policy will seek to keep working capital to a minimum while a conservative working capital policy aims to keep adequate working capital for the organisation's need (Arumona, 2019).

However, maintaining an optimal level of working capital is the central part of the problem, as it is strongly related to the trade-off between risk and return. Nonetheless, it is difficult to point out as how much working capital is needed by a particular business organisation. This trade-off between performances and risk is the key to working capital management (Dash & Hanuman, 2009) which aims at maintaining a balance between liquidity and performances while conducting the day-to-day operations of a business (Falope & Ajilore, 2009). Working capital efficiency is measured using net working capital which is defined as the difference between current assets and current liabilities. When current assets are higher than current liabilities the entity is said to have working capital efficiency which shows the entity's ability to remain a going concern and to have sufficient funds to satisfy both maturing short debt and upcoming operational expenses. Efficient management of working capital is very key for the success and survival of any business entity, to enhance performances and contribution to economic growth. To ascertain how profitability can be influenced by working capital management, a look should be taken at the statement of financial position of an entity, in reviewing the financial statement, a look has to be taken into the cash flow of the entity, the account receivables and payables of the period. The shorter the receivable period, the more liquid the entity is, and the longer the payable period, the more beneficial for the entity, as such fund can be put into other uses. But, a longer payables period may erode the credit worthiness of the entity. Despite the emphasis placed on the management of working capital in ensuring manufacturing firm profitability in Nigeria, the management is yet to come on the path of sound profitability and growth. The study examines effect of Cash Conversion Cycle Management on the performance of food and beverage firms in Nigeria.

LITERATURE REVIEW

Conceptual Framework

Working Capital Management

Working capital management is the functional area of finance that covers all the current accounts of the firm. It is concerned with the management of the levels of the individual components of the working capital (Loneux, 2004). The basic objective of working capital management is to manage firms' current assets and current liabilities in such a way that working capital is maintained at a satisfactory level (Dong & Su, 2010). Therefore, in this study, working capital management can be referred to as actions taken by managers in maintaining a balance between liquidity and profitability while conducting the day-to-day operations of a business concern. Efficient management of working capital has been defined by Ghosh and Maji (2004)

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

as the management of various components of working capital in such a way that an adequate amount of working capital is maintained for the smooth running of a firm and for fulfillment of twin objectives of liquidity and profitability.

Modern financial management aims at reducing the level of current assets without ignoring the risk of stock outs, to an optimal level (Bhattacharya, 1997). The policy of working capital in accordance to Weston et al position is concerned with two sets of relationship among balance sheet items. Firstly, the policy question about the degree of total current assets to be held. Though current assets vary with sales, it should be noted that the ratio of current assets to sales becomes a policy issue. A company may hold relatively little proportion of stocks of current assets if it elects to operate aggressively. Such move is to lower the required level of investment and enhance the expected rate of return on investment. Thus, due to excessive tough credit policy, such aggressive policy may as well enlarge the possibility of running out of inventories and cash or sales loss.

Working Capital Cycle

In a business cycle, cash flows into, around and out of the business. Cash is life blood of a business, and a manager's key mission is to assist in keeping it to flow and to take the advantage of the cash-flow in making profits. A business that is operating profitably, in theory is generating cash surpluses. If it does not generate surpluses, then the business ultimately will run out of cash and expire. The more speedily the business gets bigger the further cash it will need for working capital and investment. The cheapest and best sources of cash exist as working capital right within business. Better management of working capital generates cash, and will assist in improving profits and lessen risks. Hence, it is imperative to note that the cost of offering credit to customers and holding stocks may signify a significant percentage of a company's total profits. There are two elements in a business cycle that absorb cash, these are receivables (debtors that owe you money) and inventory (stocks and work-in-progress). Major sources of cash are Payables (payment from your creditors), and Equity and Loans (David, 2010).

Every component of working capital, such as inventory, receivables and payables has two dimensions, which are TIME and MONEY. To manage working capital entails both time and money. A business will spawn more cash or will need to borrow less money to finance working capital if possible to get money to move faster around the cycle, i.e. getting monies due from debtors as fast as possible or lowering the sum of monies tied-up by lowering inventory levels relative to sales. As a consequence, one can lower bank interest cost or one will have extra free money that will be available to enhance more sales growth or investment. In the same way, negotiating improved terms with suppliers such as getting longer credit or an increased credit limit will effectively create free finance to assist funding future sales. Working capital is referred to as the fuel powering global business activities, but often a greater percentage of this fuel is constantly stuck in the pump; tied up in aging invoices and lengthy Days Sales Outstanding (DSO) cycles (David, 2010). Those firms that are looking to enhance cash flow have primarily focused on collections. Whereas traditionally, collections have always been a reactive process, that is, picking up on aging invoices after they are already late in payment, and then resolving the underlying issues in an effort to collect. Since it is not easy to go up-stream and systematically uncover and resolve the root causes of issues that actually drive the delayed payments. Hence, most of the collections efforts normally end up squarely emphasizing on dealing with symptoms, rather than addressing the real issues.

Cash Conversion Cycle (CCC) Management

Working capital are the funds which are used to operate in the short term. If receivables are postponed, there can be delays in payments and thus causing a situation of illiquidity for the firm. Therefore, aligning the receivables management between cash, inventory and payable management is relatively challenging and important (Richards and Langhlin, 1980). In this context, CCC is an important tool of analysis that enables us to establish more easily why and how the business needs more cash to operate and when and

how it will be in a position to refund the negotiated resources (Elizalde, 2003). For Dong and Su (2010), CCC is considered as a comprehensive measure of checking the efficiency of working capital management. In their seminar paper, Richards and Laughlin (1980) devised this method of working capital cycle which is considered as the period between the payments of cash to creditors (cash out-flow) and the receipt of cash from debtors (cash in-flow). They claimed that the method is superior to other forms of working capital analysis that rely on ratio analysis. A business can generate losses during a number of different periods, but it cannot go on indefinitely with poor CCC Management. The activities that are directly related to CCC management are: The determination of the effective number of days to collect receivables, determining the inventory needs and determining the future growth of sales. These activities must be integrated in such a way that the period of time in which the cash is not being used to fund the working capital is minimized (Deloof, 2003). The three activities are carried out through the implementation of credit policy, inventory policy and cash management policy.

The CCC is calculated by subtracting the number of days accounts payable (accounts payable \times 365/cost of goods sold) from the sum of the number of days accounts receivable (accounts receivable \times 365/sales) and the number of days inventory are held (inventories \times 365/cost of goods sold). CCC has been interpreted as a time interval between the cash outlays that arise during the production of output and the cash inflows that result from the sale of the output and the collection of accounts receivable (Falope & Ajilore, 2009). Padachi (2006) posited that CCC is either negative or positive. A positive result indicates that a company must borrow while awaiting payments from customers, if it must meet up with its due obligations. A negative result indicates the number of days a company has to receive cash from sales before it must pay its suppliers (Harris, 2005). However, the ultimate goal is having low CCC, if possible negative, because the shorter the CCC, the more efficient the company in managing its cash flows and the better a firm profitability (Padachi, 2006).

Return on Asset

Return on Assets expresses the net income earned by a company as a percentage of the total assets available for use by that company. ROA suggests that companies with higher amounts of assets should be able to earn higher levels of income. ROA measures management's ability to earn a return on the firm's resources (assets). The income amount used in this computation is income before the deduction of interest expense, since interest is the return to creditors for the resources that they provide to the firm. The resulting adjusted income amount is thereby the income before any distribution to those who provided funds to the company. ROA is computed by dividing net income plus interest expense by the company's average investment in asset during the year.

Empirical Review

Johnson and Olufemi (2020) examined the impact of working capital management on the profitability of SMEs in Nigeria. Working Capital Management (WCM) plays a major role in ensuring the continuous operation of small businesses. The quantitative research method was adopted using relevant secondary data from annual financial reports of selected SMEs. Regression analysis was used to determine if the working capital (WC) variables were a significant predictor of the SMEs' profitability. The finding shows that for the period 2014 – 2018, there is no relationship between WCM and SME's profitability. The study recommends that Government policy should be geared towards enhancing the growth of SMEs and that SMEs should adopt prudent WC policies and strategic measures aimed at improving WC structure and, ultimately, the profitability of the SMEs in Nigeria.

Musa and Adamu (2018), examined the effect of working capital management on profitability of quoted bottling companies in Nigeria for the period, 2001-2014. The quoted bottling companies in the consumer goods sector are seven (7) as at 31st December, 2014. All the companies were studied using census approach. Specifically, the study seeks to assess the impact of inventory turnover days, account receivable

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

days, account payable days and cash conversion cycle on profitability of the companies. The study adopted Correlational Research Design and data were analysed with the aid of OLS multiple regression technique, using 98 firm-year observations. Data were extracted from the audited annual reports and accounts of the quoted companies. The study found that inventory turnover days have positive and strong impact on profitability of quoted bottling companies in Nigeria at 1% level of significance. Also, account receivable days have a negative and significant effect on profitability of the quoted bottling companies at 5% levels of significance. However, account payable days found to have positive but insignificant influence on profitability of companies, while the cash conversion cycle has a positive and significant influence on profitability of the companies. This implies that, increase in the cash conversion cycle will generate more profits. While increase in inventory turnover days and decrease in account receivable days will generate more profits. The study concludes that, efficient management of working capital affects the performance of quoted companies in Nigeria. The study therefore recommends that, the management of the companies should give due importance to working capital management, and emphasize an optimal working capital levels in their respective companies, because of the positive impact of cash conversion cycle and account payables on the profitability. This may attract more customers and consequently higher profit.

Uguru, Chukwu and Elom (2018) determined the effect of working capital management on the profitability of brewery firms in Nigeria. The study adopts the ex-post-facto research design and employed the OLS regression technique in analysing the data. To ascertain the effect of working capital management on the profitability of brewery firms in Nigeria, the study used the sample of Nigerian Brewery Plc and Guinness Nigeria Plc for a period of Eight years (8) 2006 to 2014. The study seeks to assess the impact of account receivable days, inventory holding period in days, and the cash conversion cycle on return on assets. The findings suggest that the management of the number of days account receivables are outstanding, number of days inventory are held, and cash conversion cycle are significant factors in the accomplishing of the profitability objective of brewery firms in Nigeria. It was recommended that brewery firms should reduce heavy investment in current assets to avoid high inventory costs, and excess cash holdings and account receivables.

Musa (2018) examined the effect of working capital management on profitability of quoted bottling companies in Nigeria for the period of 14 years, (2001-2014). The quoted bottling companies in the consumer goods sector where seven (7) as at the yearend 31st December, 2014. The companies were all studied, using the census approach. The study seeks to assess the impact of account receivable days, account payable days, inventory turnover days and cash conversion cycle on the profitability of the companies. Correlational Research Design was adopted by the study and data were analysed with the aid of OLS multiple regression technique, using 98 firm-year observation. Data were extracted from the audited annual financial report of the quoted companies. The study found that, account receivable days has a negative and significant effect on profitability of quoted bottling companies at 5% level of significance. However, the account payable days, has a positive but insignificant influence on profitability of companies. Inventory turnover days has a positive and strong impact on profitability of quoted companies in Nigeria at 1% level of significant, while Cash Conversion Cycle has a positive and significant influence on the profitability of companies. This implies that, an increase in the cash conversion cycle will generate profit. While an increase in the inventory turnover days and decrease in account receivable days will generate more profit. The study concludes that, efficient management of the working capital affect the performance of quoted companies in Nigeria. The study recommends therefore that, the management of companies should give due importance to working capital management, and emphasize an optimal working capital level in their respective companies, because of the positive impact of cash conversion cycle and account payables on the profitability on companies. This may attract more patronage and thus, higher profit.

Nwachukwu and Odo (2017) conducted a study on the effect of working capital management on the profitability of Flour Mills of Nigeria Plc. The study sought to determine the extent to which Number of Days of Account Receivable; Number of Days of Inventory Turnover; and Number of Days of Accounts

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

Payable affect Gross Profit Margin (GPM) of flour Mills of Nigeria Plc. The study was anchored on Trade-Off theory of capital structure. The study adopted co-relational descriptive non experimental research design approach based on data derived from the pass annual report of flour mill of Nigeria Plc. Data collected was analysed using PEARSON correlation techniques via the statistical package for social science (SPSS) version 20. The study report a positive and significance influence of numbers of day account receivable; number s of days of inventory turnover; numbers of days of account payable on gross profit margin (GPM) of flour mill of Nigeria Plc. The implication of the result which shows a positive impact of working capital management, variables on gross profit of margin of flour mill of Nigeria indicates that the number of days it takes a firm to be paid for sales made and inventory held the less profit it is expected to make. The study recommended that flour mill of Nigeria Plc should be very apt in reducing the numbers of days of account receivable and inventory to a reasonable minimum in order to boost profitability.

Lawal (2017) examined the performance of listed conglomerate firms and management of working capital. Data was collected from yearly reports of the six conglomerate organisations from 2006-2015; the design of correlation thesis was used; OLS method was used to analyse the data. The panel regression analysis revealed, there was a significant and positive relationship between cash conversion cycle and the firms profitability; an insignificant negative relationship was observed between the debtor turnover ratio and the organisations profitability. The study concluded that while a significant relationship exist between a component working capital and the organisation profitability, some of them do not have significant relationship. The study recommend that the managers of the conglomerate firms should give adequate attention to debtors and inventory turnover and try to ensure an optimal level of working capital.

Nwachukwu and Odo (2017) conducted a study on the effect of working capital management on the profitability of Flour Mills of Nigeria Plc. The study sought to determine the extent to which Number of Days of Account Receivable; Number of Days of Inventory Turnover; and Number of Days of Accounts Payable affect Gross Profit Margin (GPM) of flour Mills of Nigeria Plc. The study was anchored on Trade-Off theory of capital structure. The study adopted co-relational descriptive non experimental research design approach based on data derived from the pass annual report of flour mill of Nigeria Plc. Data collected was analysed using PEARSON correlation techniques via the statistical package for social science (SPSS) version 20. The study report a positive and significance influence of numbers of day account receivable; number s of days of inventory turnover; numbers of days of account payable on gross profit margin (GPM) of flour mill of Nigeria Plc. The implication of the result which shows a positive impact of working capital management, variables on gross profit of margin of flour mill of Nigeria indicates that the number of days it takes a firm to be paid for sales made and inventory held the less profit it is expected to make. The study recommended that flour mill of Nigeria Plc should be very apt in reducing the numbers of days of account receivable and inventory to a reasonable minimum in order to boost profitability.

Theoretical Framework

There exist many theories that underpinworking capital management and financial performace which includes amongst others: the monetarist theory and Miller-orr theory. This section discusses each of these theories and relates it to the study.

Monetarist Theory of Cash Management

This theory was advocated by (Friedman, 1956). He states that in the first place,the definition of quantity is a principal of capital demand. The demand for money on the part of ultimate asset holders is formally equivalent to that of the demand for a costumer utility .It is not a theory of production, or of profit from money, or of the level of price .He treats the sum of actual cash balance (M/P) as a commodity that is ordered and services are rendered by the person who owns in. Money is a commodity or capital good, thus. The need for revenue thus is part of the capital or benefit theory. The demand for capital, in real terms, can be assumed to be a future primarily of the following variable for ultimate wealth holders. The total wealth

on the other hand is analogous to the limit on spending. It is the amount that has to be divided between multiple categories of properties. Estimates of total wealth in fact are scarcely available. Revenue would instead function as an index of income profit thus is a surrogate of income, according to Friedman. The Division of Wealth between Human and Non-Human Forms: The primary source of wealth is in economic capacity of human beings which is human capital. Yet the transaction human capital into non-human resources or the opposite are subject to systemic limitations.

This can be achieved by leveraging current profit to purchase non-human services or using non-human capital to finance skills growth. Thus the percentage of total wealth in the context of non-human wealth is an additional important element. The Expected Rates of Return on Money and other Assets: These is the principle of summer demand, the return rate are equal to the values of the commodity and its substitutions and substitutes. As is typically the case for currencies, the nominal rate of return can be zero or negative, as often the case for on- demand deposits for which interest is paid and in general for on-time deposits. The nominal rate of return on other assets is divided into two parts: First, any yield or tax currently paid, such as interest on shares, dividends on equity and the cost of storage of physical assets and secondly fluctuation in the prices of certain assets which under inflation or deflationary conditions are especially important.

Miller-Orr Paradigm for Cash Management

Pandey (2010) stressed that the miller-orr model solved the shortcoming of the Baumol model because it provides for daily cash flow fluctuation and maintains that net cash flow is typically spread. This model encourages cash flow and defence inventories (precautionary balance) to be volatile unlike the Baumol model. According to March (2009), the Miller-Orr model imposes upper and lower limits that cause buy/sell acts to carry cash balance back to an acceptable “return point”. According to Marsh (2009) this limits the upward and downward motion of cash to within rational limits. The formula helps the company to set the lower control limit, while the formula measures the higher control limits and the estimated cash balance.

Furthermore Marsh explained that to return the cash balance to a normal point of return a corporation must either buy or sell cash securities. When the cash balance reaches the upper limit, a corporation can buy securities in order to lower the cash balance to return point. Similarly as the cash balance approaches the lower cap a company will sell shares and get the cash balance back at the point of return. Jarrad (2000) also explained that the approach of Miller Orr in in 1966 was to assume that the underlying dilemma of the management was to retain enough cash on hand to meet the need for daily purchases, thus minimizing the opportunity cost of not retaining a return yielding commodity. He further stated that miller and Orr based their model on holding two thresholds; the upper and lower thresholds. The transfer from cash to an interest bearing asset would be activated if the upper limit is met and is the lower limit is surpassed, the transfer will be activated to the cash account. This work pitches its tent on this assumption.

METHODOLOGY

This study adopted the ex post facto research design since the study is a secondary data research. The population of the study covers all the twenty three (23) listed foods and beverages firms on the Nigerian Stock Exchange as at 2020. A ten (10) years period ranging from 2011 to 2020 is selected in order to bring a clearer picture of the problem in a determinable period of time. The sample size of fifteen (15) was selected out of the total population of three (23) listed foods and beverages firms on the Nigerian Stock Exchange as at 2020, using the purposive sampling technique. The inferential analyses will also involve the application of the appropriate statistical technique of Panel Regression Analysis; this is due to the nature of the data, the study adopted Uguru, Chukwu and Elom (2018) model.

$$ROA = \beta_0 + \beta_1 CCC_{it} + e_{it} \text{ ----- } i$$

Where;

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

ROA = Return on Assets
 CCC = cash conversion cycle of firm
 $\beta_0,$ = constant terms $\mu_{it},$ = error terms

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistics gives a presentation of the mean, maximum and minimum values of variables applied together with their standard deviations obtainable. The table below shows the descriptive statistics for the variables applied in the study. An analysis of all variables was obtained using the E-view 10 software for the period under review. **Table 3.1: Descriptive Statistics Result**

	CCC	ROA
Mean	0.394587	19.16299
Median	0.320000	18.98500
Maximum	1.600000	33.33000
Minimum	0.020000	9.235300
Std. Dev.	0.279369	4.530697
Skewness	1.746673	0.511171
Kurtosis	6.041303	3.334015
Jarque-Bera	134.0812	7.229681
Probability	0.000000	0.026921
Sum	59.18810	2874.449
Sum Sq. Dev.	11.62904	3058.555
Observations	150	150

Source: E-View 10 Output (2021)

Table 3.1.1 presents the descriptive statistics of the effect of cash conversion cycle on financial performance of listed foods and beverages firms in Nigeria during the period of 2011 to 2020. The table shows that return on asset (ROA) as a measure of financial performance has a mean of 19.1629 with a standard deviation of 4.5306, with a minimum value of 9.235300 and maximum values of 33.33000. Cash Conversion Cycle (CCC) show mean of 0.3945 with standard deviation of 0.2793, minimum and maximum are 0.02000 and 1.60000 respectively. Although the range between the minimum and maximum is wide, it implies a stable performance as the standard deviation indicated that there is no wide dispersion of the data from the mean value.

Table 3.2: Hausman Test

Correlated Random Effects - Hausman Test
 Equation: Untitled
 Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.396633	1	0.0003

Source: E-View 10 Output (2021)

The Result of Hausman test shows that chi-square statistics value is 13.396 while the probability value is 0.0003. This implies that there is enough evidence to reject the null hypothesis which states that random effect is most appropriate for the Panel Regression analysis. It thus stands that error component model (random effect) estimator is not the most appropriate because the random effects are not well correlated

with the regressors. Thus, the most consistent and efficient estimation for the study is the fixed effect cross-sectional model. Consequently, the result suggests that the fixed effect regression model is most appropriate for the sampled data because the Hausman test statistics as represented by corresponding probability value is less than 5%.

Decision Rule: The decision rule for accepting or rejecting the null hypothesis for any of these tests will be based on the Probability Value (PV) and the Probability (F-statistic). If the PV is less than 5% or 0.05 (that is, if $PV < 0.05$).

Table 3.3: Panel Regression Result (Fixed Effect)

Dependent Variable: ROA
 Method: Panel Least Squares
 Date: 07/14/21 Time: 15:17
 Sample: 2011 2020
 Periods included: 10
 Cross-sections included: 15
 Total panel (balanced) observations: 150

Variable	Coefficient Statistic	Std. Error	t-	Prob.
	19.41417	0.511439		
C	37.95989			0.0000
CCC	-0.636555	1.154506	-	0.5823
	0.551366			
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.644857	Mean dependent var		19.16299
Adjusted R-squared	0.605102	S.D. dependent var		4.530697
S.E. of regression	2.847131	Akaike info criterion		5.031039
Sum squared resid	1086.225	Schwarz criterion		5.352173
Log likelihood	-361.3279	Hannan-Quinn criter.		5.161505
F-statistic	16.22084	Durbin-Watson stat		0.447892
Prob(F-statistic)	0.000000			

Source: E-View 10 Output (2021)

From table 3 above, the coefficient of multiple determinations (R^2) is 0.6051. This indicates that about 60 % of the total variations in return on asset is explained by the variations in the independent variables (CCC), while the remaining 40% of the variation in the model is captured by the error term. This indicates that the line of best fit is highly fitted. The standard error test is applied in order to measure the size of the error and determine the degree of confidence in the validity of the estimates. Usually if the standard error is smaller than half the numerical value of the parameter estimate, it can be concluded that the estimate is statistically significant. Having carried out a standard error test on the parameters estimated and as also indicated by their respective probability values, the parameter estimate for CCC is slightly not statistically significant, given that the individual probability is 0.5823 which is greater than 5%. However, when taken collectively, the regressors (CCC) against the regressed (ROA), the value of F-statistic is 16.22084 and the value of the probability of F-statistic is 0.000000. This result implies that the overall regression is both positive and statistically significant at 5%.

Discussion of Findings

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

This study aptly examined the effect of Cash Conversion Cycle Management on the performance of food and beverage firms in Nigeria, using panel series data and regression analysis approach. The Cash Conversion Cycle Management proxied Cash Conversion Cycle Management(CCC) for fifteen (15) listed food and beverage firms in Nigeria for 10 years ranging from 2011 to 2020 were the independent variables while the return on asset (used to financial performance) was the dependent variable for the study. The effect of the independent variable on each dependent variable was analyzed in terms of strength and significant and the panel regression analysis was used to compare the relationship among the variables. The result for the model of the study showed that when taken individually and collectively, food and beverage (CCC) has a positive and significant effect on return on asset and return on equity taken as a measure of financial performance. The P-Value of CCC is 0.5823 which means that is significantly negative. This result is not inconsistent with the result Musa & Adamu (2018).

Conclusion and Recommendations

The study shows that cash conversion cycle management provides critical insight into the state of a company's financial position. It is an important indicator of financial fitness, as the availability of a company's working capital is one of the first items a lender or investor will examine on a balance sheet. It was noted that a firm's ability to properly manage current assets and the associated liabilities or current obligations may determine how well it is able to survive in the short run. The study revealed that working capital management is particularly important to small firms. Although such firms can minimize their investment in fixed assets by renting or leasing plant and equipment, they cannot avoid investment in cash receivables and inventories. The study concludes that Cash Conversion Cycle Management does not contribute to the growth of food and beverage firms in Nigeria.

The study recommends that management of companies should not give due importance to working capital management, and emphasize an optimal working capital level in their respective companies, because of the negative impact of cash conversion cycle on the financial performance of food and beverage firms in Nigeria.

REFERENCES

- Abuzayed, B. (2012). Working capital management and firms' performance in emerging markets: the case of Jordan. *International Journal of Managerial Finance*, 2(4), 1-7
- Afza, T., & Nazir, M.S., (2007). Working capital practice of capital management practices of firms. Empirical evidence from Pakistan" in the proceedings of 9th South. *East Asian management forum (SAMF) held on February 24 – 25, 334 – 343*,
- Ailemen, I., O. Agwu, E., M. Folashade, O. & Adetula, D. (2014) examined working capital management and profitability of the manufacturing sector: an empirical investigation of Nestle Nigeria plc and Cadbury` Nigeria plc. *European Journal of Business and Social Sciences*, 3, (6), 23-34.
- Akindele, J. A. & Odusina A. O. (2015) Relationship between working capital management and firms' profitability of twenty-five Nigerian quoted companies, *Research Journal of Finance and Accounting* 6, (7), 1-7.
- Allman-Ward, M., & Gupta, C. P., (2003). Working Capital Performance of Corporate India: An Empirical Survey for the Year 2000-2001. *International Journal of Business and Management*, 5 (1), 23-38
- Ayoola O. O., Appolos N. N & Grace O. O (2020). Working capital and profitability of listed hotel companies in Nigeria. *African Journal of Hospitality, Tourism and Leisure*, 9(4), 669-684.

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

- Belal, V.& Smirat, A. (2016). Cash management Practices and financial performance of small and medium enterprises (SMEs) Jordan . *Research Journal of Financial Accounting*. 2(1),17-23
- Biger, N.& Mather, N. (2016). the relationship between working Capital management and profitability. *Business and Economics Journal*. 2(2), 3-12
- Boisjoly, R., P. (2009). The cash flow implications of managing working capital and capital investment. *Journal of Business and Economic Studies*, 15(1), 98-108.
- Bonn, I., Yoshikawa, T., & Phan, P.H. (2004). Effects of board structure on firm performance: A comparison between Japan and Australia. *Asian Business & Management*, 3, 105-125.
- Brealey, R.A., Myers, S.C., & Allen, F., (2006). Corporate Finance. 8th edition. New Bacon. Belgian Firms” *Journal of Business Finance and Accounting*, 3(2). 10-16
- Charlton, W.T., Lancaster, C., & Stevens, J.L. (2002). Industry and liquidity effects in corporate investment and cash relationships. *The Journal of Applied Business Research*, 18(1), 131-142.
- Chebii, E. K. Kipchumba, S. K., & Wasike, E. (2011). Relationship between firms’ capital structure and dividend payout ratios: companies listed at Nairobi Stock Exchange. Kabarak University *First International Conference*. 1-11.
- Chiou, J. R., and Houw, C., (2006). The determinants of cash management. *Journal of American Academy of Business*, 10 (1), 149- 155
- Dash, T.& Hanuman, W.(2009). Working capital management and firms’ performance in emerging markets: the case of Jordan. *International Journal of Managerial Finance*, 2(4), 1-7
- David M. M., (2010) “The influence of Cash management Components on Corporate Profitability: A Survey on Kenyan Listed Firms”, *Research Journal of Business Management*, 4(1), 1-11
- Deloof, M., (2006). Does cash management affect profitability of Belgian firms? *Journal of Business finance and Accounting*. 30, (3 & 4), 573 – 587.
- Egbide, B. (2009): “Cash management and Profitability of Listed Companies in Nigeria”; *Nigeria Research Journal of Accountancy*, 1(1), 44-53.
- Eljelly, A. A., (2004). Liquidity-profitability tradeoff. An empirical Investigation in an emerging market. *International Journal of commerce and management*. 14 (2), 48-61.
- Epps, R.W., & Cereola, S.J. (2008). Do institutional shareholder services (ISS) corporate governance ratings reflect a company's operating performance? *Critical Perspectives on Accounting*, 19, 1138-48.
- Falope, H., & Ajilore, A. F. (2009). Impact of working capital management and profitability of listed companies in Nigeria. *International Journal of Thesis Projects and Dissertations*, 4, (2) , 143-151.
- Filbeck, G., & Krueyar, T. M. (2004). “An Analysis of Working Capital Management Result across Industries”. *Mid- American Journal of Business*, 4(2) 12-19
- Frankfurt Business media. (2012). *Frankfurt Business Media*. Retrieved 15 03 2013, from CFO Insight: Ganesan, Z., (2007). “An analysis of working capital management efficiency in telecommunication equipment industry. *Reviewer Academic Journal*, 3(2), 1-10.
- García-Teruel, P.J., & Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164-177.

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

- Gentry, J.A., Vaidyanathan, R., & Wai Lee, H., (2001). A Weighted Cash Conversion Cycle, *Journal of Financial Management Association of USA*, 19 (1), 90-99.
- Gitman, J. L., (2003). *An Assessment of Corporate Cash Management Practice: Financial Managementspring*, 8(1) 32-41
- Gujarati, D. (2005), *Basic econometrics* 4th ed McGraw–Hill Companies. 111-132
- Janaki, S. T. (2016) examined the impact of cash management on financial performance of the sri lankan manufacturing companies. *EPRA International Journal of Economic and Business Review*, 4(8) 19
- Jeng-Ren, C., Li, C., & Han-Wen, W. (2006). The determinants of working capital management. *Journal of American Academy of Business*, Cambridge, 10(1), 149- 155.
- John, O. (2014). Effect of cash management on profitability of Nigerian Manufacturing Firms, *International journal of technology Marketing*, 4(13) 12-20.
- Johnson A. O., & Olufemi A, (2020). Impact of working capital management on profitability of Small Business in Nigeria. *Journal of Small Business and Entrepreneurship Development*, 8(1), 27-40.
- Kajola, S. O. Nwaobia, A. & Adedeji, S. A. (2017) examines the impact of working capital management on firms' financial performance of thirty manufacturing firms listed on the Nigerian Stock Exchange for the seven-year period 2004-2010. *The International Journal of Humanities & Social Studies*. 2(4), 12-19.
- Kiel, G., & Nicholson. G. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *An International Review*, 11(3) , 189–205.
- Kumaring, L. Y. & Rayi, J. (2013). An analysis of working capital management results across industries. *Mid-American Journal of Business*, 20(2), 11-18
- Lamberson, M. (1995). "Changes in Working Capital of Small Firms in Relation to Change in Economic Activity. *Mid-American Journal of Business*. 10 (7).1-6
- Lawal, M., L. (2017) Effect of working capital management and profitability of listed conglomerate firms in Nigeria. *A dissertation submitted to the school of postgraduate studies, Ahmadu Bello University, Zaria in partial fulfillment of the requirements for the award of the degree of Master of Science (M.Sc), Accounting and finance.*
- 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(1), 26-35.
- Maness, T.S. & Zietlow, J.T. (2005). *Short-term financial management*. 3rd edition. Ohio: SouthWestern/Thomson Learning.
- Mdey, S. (2006). Working Capital Management: A case study on British American Bangladesh Company Ltd. *The Journal of Nepalese Business studies*,3(1), 78-84.
- Mohamed, Willy & Mohamed (2019) Effect of Cash Management on Financial Performance of Food and Beverage Retailers in Puntland state of Somalia: A Case of Garowe District. *International Journal of Contemporary Applied Researches*. 6,(3),1-17
- Moise, T. P. (2007). Effect of Working Capital Management on SME profitability. *International Journal of Managerial Finance*, 3, (2) 164-177.
- Muhammad, A., & Syed, I.H., (2011) *Interdisciplinary Journal of Contemporary Research in Business* 3,

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

(5) 56-67.

- Musa I., & Adamu Y (2018). Effect of working capital management on profitability of quoted Bottling companies in Nigeria. *International Journal of Economic, Commerce and Management*. 6(8), 402-417
- Nobanee, H., & Alhajjar, M. (2009). Working capital management and corporate profitability of Japanese firms. *International Review of Business Research Papers*, 3 (1), 279-300.
- Nwarogu, J. , Innocent, A.& Aondohemba, J. (2017). Cash management and performance of listed firms in Nigeria . *Journal of Economics management and trade*. 3(1) 1-12
- Nyabwanga,R.,Ojera, P., Lumumba, M., Ondondo, A. & Otieno, S. (2012). Effect of working capital management practices on financial performance: A study of Small medium Enterprises in Kisii south District, Kenya. *African Journal of Business management*, 1(1) 18-23
- Onyeka, V. N., Nnado, I. C., & Iroegu F. N. (2018). Effect of cash and liquid substitutes on profitability of selected quoted manufacturing firms in Nigeria. *European Journal of Business, Economics and Accountancy*, 6(12),1-12
- Owolabi, M., K.& Obida, J. (2012). An Analysis of Working Capital Management Results across Industries. *Mid-American Journal of Business*, 20, (2), 11-18.
- Padach, W. (2006). “Trends in Working Capital Management and its Impact on Firm’s Performance: An Analysis of Mauritian Small Manufacturing Firms ”. *International Review of Business Research Paper*, 2(2). 45-58.
- Padachi, K. (2006) Trends in cash management and its impact on firm’s performance: An analysis of Mauritian small manufacturing firms. *International review of business research papers*. 2, (2), 45 – 58.
- Panda, A. (2012). The status of working capital and its relationship with sales: An empirical investigation of Andhra Pradesh Paper Mills Ltd. *International Journal of commerce and Management*, 22 (1), 36 –52.
- Pandey, M. (2002). *Financial management* . New delhi: Vikas publishing House.
- Pass, C.L., & Pike, R.H. (2007). *An Overview of Working Capital and Corporate Financing, Managerial Finance*, 10 (3), 1-11.
- Raheman, A., Afza T., Quyyum, A.& Bodla, M. (2010). working Capital management and corporate performance of manufacturing sector in Paskistan. *International Research journal of Finance and Economics*, 1(4)10-12.
- Rasheed, A. M. (2014). Impact of liquidity, leverage, inflation on firm profitability: An empirical analysis of food sector of Pakistan. *IOSR Journal of Business and Management* 2(1),104-112.
- Ross, A., S. (2000). *Fundamentals of Corporate Finance*, 5th Edition Irwin McGrwal Hall.
- Samiloglu, F., & Demirgunes, K. (2008). The effect of working capital management on firm profitability: Evidence from Turkey. *The International Journal of Applied Economics and Finance*, 2(1), 44-50.
- Smith, K.V. (2006). “*Profitability and Liquidity Trade off in Working Capital Management*. In *reading on the management of Working Capital* (549-562) . St Paul: West Publishing.
- Tobias, O. & C. N. (2014). Effect of Working Capital Management on performance of Firms Listed at the Nairobi Securities Exchange. Nairobi Kenya. *International research Journal of Finance and Economics*, 3 (47). 12-25.

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria

Wally– Drima, L.B., (2008). Cash management: the case of listed Retail Domestic Company in Botswana. *Journal of management Research* 1(2) 15-24.

William, H., & McAfee, B., (2009). *Producing a Healthy Cash Flow for your Business, Business and Economic Review*, 55 (3), 24-25.

Effects of Cash Conversion Cycle Management on the Performance of Food and Beverage Firms in Nigeria