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EMPIRICAL EXAMINATION OF THE ASSOCIATION OF WORKING CAPITAL MANAGEMENT AND FIRMS' PROFITABILITY OF THE LISTED FOOD AND BEVERAGES FIRMS IN NIGERIA

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ABSTRACT

The objective of working capital management is to minimize current assets and maximize current liabilities based on the company's terms of trade without compromising its future profitability and debt payment ability. The study examined the effect of working capital management on the profitability of listed Food and Beverages companies in Nigeria. Correlational research design using secondary data from a sample of ten (10) Food and Beverages firms for a period of Five (5) years (2010-2014) was employed. Using Ordinary Least Squares (OLS) technique of data analysis, the study found that inventory turnover and account receivable have significant positive effect on the profitability of listed food and beverages firms in Nigeria, and that cash conversion cycle and account payable have a significant negative effect on the profitability of listed food and beverages firms in Nigeria. The study recommends among others that management of Food and Beverages companies in Nigeria should decrease period involved in their cash conversion cycle as it will lead to improving the company's performance in the form of increasing its profit generation and make available a free Cash flow to be distribute to shareholders at the end of company's accounting period.

Keywords: Working Capital Management, Average Collection Period, Average Inventory Period, Average Payment Period, Cash Conversion Cycle, Return on Assets.

INTRODUCTION:

Food and Beverages Sector is undoubtedly among the most vibrant sectors that contribute significantly to the economy growth and development of the Nigerian economy. It is the third after Oil and service Industries contributing to about 17.72%, 18.21% and 19.10% in the first, second and third quarter in 2014, which is approximately contributing about 20% to GDP of the country, (National Bureau of Statistics, 2014). As an important sector in the overall economy growth, Food and Beverages requires in depth analysis both at industrial as well as at firm level.

Working capital also known as circulating capital or revolving capital is that organizational capital which is used to invest in the current assets as well as settlement of current liabilities. A healthier working capital explains that the corporation is in a sound financial condition capable of subduing its short-term obligations. On the other hand, a negative working capital is where the most liquid assets of the corporation are not sufficient to fulfill its current monetary commitments. It is evidently and crystal clear that the prime responsibility of financial managers is to ensure efficacy, efficiency and or judiciously utilizations of the available meager wherewithal at the company's disposal. A well-managed working capital promotes a company's well-being in the market in terms of liquidity and it also acts in favor for the growth of shareholders value (Jeng-Ren, Li & Han-Wen, 2006).

The central intent of running corporate outfits is mostly to make a positive return on investment. However, it is generally accepted that ample liquidity is of paramount importance when it comes to the issue of corporate survival and growth. For all countries, both developed and developing, one of the fundamental objectives of working capital management is to ensure that the organization has sufficient, regular and consistent cash flow to fund its activities. The way that working capital is managed has a significant impact on profitability and cash holdings of firms (Deloof, 2003). Undoubtedly, efficient working capital management is associated with lots of advantages amongst which include but not limited to speedy payment of short term commitments on firms (Peel and Wilson, 2000); facilitates owner financing; reduces working capital as a cause of failure among small businesses (Berryman, 1983); ensures a sound liquidity for assurance of long term economic growth and attainment of profit generating process (Wignaraja and O'Neil ,1999); and ensures acceptable relationship between the components of firms working capital for efficient mix which guarantee capital adequacy, (Osisioma, 1997). On the other hand, inefficient working capital management leads to abysmal failures of many corporate organizations. This might not be unconnected to the fact that fund management is sine qua nonn to organizations' prosperity (Berryman, 1983), overtrading signs (Appuhami, 2008), and inability to propel firm liquidity and profitability, (Eljielly, 2004; Peel and Wilson, 1996; Shin and Soenen, 1998).

From accessible data one can authoritatively state that there are many studies been conducted on this area but there have been no consensus as to whether or not working capital management effect organizational profitability negatively or positively. There was myriad of results some showing positive relationships others negative. For instance, the works of Hina Aqha, Alipour, Rahman all test the effect of working capital and profitability and find out that there is positive relationship, Tharshiga (2013) report a negative relationship and other studies like that of Erik (2012), Benjamin and Samuel (2010) did not show any relationship while the work of Daniel and Ambrose (2013) found a positive relationship between profitability and account receivable and cash conversion cycle and a negative relationship between profitability and inventory and account payable. So because of disharmony among various researchers and for the facts that few other researches we were able to lead hands on uses manufacturing companies, textile industries, pharmaceutical companies we did not come across any that use food and beverages and of course food and beverages is one of the most contributory company in the case of Nigerian Capital Market.

As a consequence, the thrust of this research is to examine the relationship between working management and profitability. Specifically, the study will examine the effect of cash conversion cycle and profitability, the effect of account receivable and profitability, the effect of account payable and profitability and effect of inventory and profitability, all in Food and Beverages companies in Nigeria. In the same vain, hypotheses were formulated vis-à-vis the specific objectives for a period of five year (2010-2014)

LITERATURE REVIEW AND THEORETICAL FRAMEWORK:

Many research work have actually been conducted looking at the effect of working capital management and firm profitability, some are in qualitative form while others are in quantitative.

Van Horne (1995) explains that, working capital management is the administration of current assets in the name of cash, marketable securities, receivables and staff advances, and inventories. Osisioma (1997) demonstrated

that good working capital management must ensure an acceptable relationship between the different components of a firm's working capital so as to make an efficient mix, which will guarantee capital adequacy. Thus, working capital management should make sure that the desirable quantities of each component of the working capital are available for management.

CONCEPTUAL ISSUES:

To effectively manage working capital, company needs to direct its attention to four different short term assets; account receivables, inventories, cash, payables, and short term securities/ risk management.

CASH MANAGEMENT:

Tsamenyi and Skliarova (2005) in Appohami (2008), examine the international differences in cash management practices. The results reveal that cash management concepts such as re-invoicing centres, leading and lagging, netting, and cash flow forecasting are used across the world. Polak and Kocurek (2007) argue that the objective of cash management is to increase liquidity, control cash flows, and maximize the value of funds while reducing their cost. Treasury activities such as debt management, fostering good relationships with banks, paying suppliers and collecting from customers, form part of cash management. Based on theoretical perspective provided by these previous authors, it is logical to hypothesize that cash and working capital are positively related (Ashwin, 2011).

INVENTORY MANAGEMENT:

The second individual determinant is inventory management. Kanet (1984) in Van Horn (1995) explores the theories of successful inventory management, inventory control, and developments in inventory management. Skolnik (2007) in Appuhami (2008) shows that reduced inventory requirements are mechanisms for increasing cash balances. Carpenter et al. (1994) examine the link between inventory and internal financing and reveal that changes in inventory management can be a source of funding. These studies do not provide a clear indication as to whether there is a positive or negative relationship between inventory and working capital. This makes it difficult to formulate a particular theoretical hypothesis and consequently it is easier to expect a mixed relationship (Ashwin, 2011).

ACCOUNTS PAYABLE MANAGEMENT:

The third determinant is accounts payable and has been covered extensively in the debt literature. Modigliani and Miller (1963) and Miller (1977) advocate that tax shields on interest payments on debt should place a premium on the value of a firm, but Miller's subsequent incorporation of personal tax effects greatly reduces the apparent tax advantages of debt. Modigliani (1982) incorporates uncertainty into the argument and argues that an optimal capital structure might involve a trade-off between tax shelters on debt, inflation, and personal tax effects. Myers and Majluf (1984) pioneer the pecking order theory to explain the tendency to rely on internal funds and the preference for debt rather than equity. For brevity purposes, this discussion is limited to these well-known studies. It is clear from the literature that there is a negative relationship between accounts payable and working capital and to that end we hypothesize the same relationship (Ashwin, 2011).

ACCOUNTS RECEIVABLE MANAGEMENT:

The fourth determinant discussed in the literature is accounts receivable. Mian and Smith (1992) test hypotheses that explain the choice of accounts receivable management policies and explore the incentives that extend trade credit and policy choices. They find several incentives for firms to extend trade credit rather than cash, including cost advantages and market share. Asselbergh (1999) suggest that firms are willing to use accounts receivable for pricing motives, operating motives, financing motives, tax-based motives, and transaction motives. The author reports that the day's sales outstanding rate and cost advantages are determinants of accounts receivable management. Based on the findings of previous researchers, we are able to hypothesize a positive relationship between accounts receivable and working capital (Ashwin, 2011).

RISK MANAGEMENT:

Following the global financial crisis, risk management practices have risen in pre-eminence. Annual corporate treasurers' surveys conducted by Ernst & Young reveal that financial risk varies overtime. The findings of

Graham and Harvey (2001) also indicate that a key determinant of cash flow is risk management practices. The strategic importance of market risk in daily running of a business is explained by Verschoor and Muller (2007) and Kalamkar (2007). The importance of operational risk management is emphasized by studies conducted by Moosa (2007) and Abrahams et al. (2007). Liquidity risk is examined by Naimy (2009) and Vanden End (2010) and they assert that inefficient liquidity risk management was a key determinant of the global financial crisis. The function of credit risk in debt management is highlighted by Smith and Thomson (2007). Simon (1984) and Howell and Chaddick (1994) find that political risk can have direct or indirect influences on firm operations. Zhao (2011) proposed a fifth determinant in terms of risk management. Heargues that risk management falls under the responsibility of corporate treasurers in Australia.

EMPIRICAL LITERATURE:

It can be expected that the way in which working capital is managed, will have a significant impact on the profitability of those firms. Raheman (2007) studied the effect of different variables of working capital management including the Average Collection Period, Inventory Turnover in Days, Average Payable Period, Cash Conversion Cycle and Current Ratio on the Net Operating Profitability of Pakistani Firms. By using Pearson's correlation and regression analysis he found that there was a strong negative relationship between variables of Working Capital Management and Profitability. He also finds that as the cash conversion cycle increases, it leads to decrease in profitability of the firm and managers can create a positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level.

Mohammed (2011) conducts a research on working capital management and profitability, he find out that profitability and working capital management position of textile industries are not satisfactory. Though correlation exists between working capital management and profitability and makes a conclusion that working capital management has a positive impact on profitability. Ananthasayan, Raveenthiran and Raveeswaran (2011) examined the relationship between working capital management and profitability of listed manufacturing companies in Sri Lanka over the period of time 2003-2007. Thirty manufacturing companies were selected as samples companies to find out the relationship among variables. Their results shown that, there was a significant relationship between profitability and cash conversion cycle.

Anandasayanan and Subramaniam analyzed effect of working capital management on profitability of firms in Sri Lanka. This study was used panel data of 60 firms, for the period of 2000-2008 that consist of six different economic sectors which are listed in Colombo Stock Exchange. The results of regression analysis provide a strong negative significant relationship between cash conversion cycle and firm profitability. This reveals that reducing cash conversion period results to profitability increase. Lazaridis and Tryfonidis (2006) investigated relationship between working capital management and corporate profitability of listed companies in the Athens Stock Exchange. The results of the article showed that there was a statistically significant relationship between profitability and cash conversion cycle. Moreover managers could create profits for their companies by handling correctly the cash conversion cycle and keeping each different components (accounts receivables, accounts payables, inventory) to an optimum level.

Shin and Soenen (1998) suggested that efficient working capital management was very important for creating value for the shareholders. The way working capital was managed had a significant impact on both profitability and liquidity. Using correlation and regression analysis they justified the relationship between the length of net trading cycle, corporate profitability and risk adjusted stock return. They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability. In addition, they also found that shorter net trade cycles were associated with higher risk adjusted stock returns. Sayaduzzaman (2006) in his article on "Working Capital Management: A study on British American Tobacco Bangladesh Company Limited" mentions that the efficiency of working capital management of British American Tobacco Bangladesh Company Ltd. is highly satisfactory due to the positive cash inflows and planned approach in managing the major elements of working capital. He found that working capital management helps to maintain all around efficiency in operations. In the article "Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market,"

Uyar (2009) tried to establish a relationship between CCC, profitability and size of the firm. The focused was on listed companies on Istanbul Stock exchange, he collected the data for 166 companies from seven different industries for the period of one year (2007). He used total asset and net sale as a variable to measure the size and ROE as a variable to measure profitability. ANOVA and Pearson correlation was run to find out the association of CCC with size of the company and CCC with profitability. Not surprisingly there exists a negative relationship between CCC and size of the firm, and CCC and profitability.

THEORETICAL FRAMEWORK:

Working capital theory usually is the theory that guided working capital management. According to the theory working capital is the company's surplus of current assets over current liabilities, which measures that extent to which it can finance any increase in turnover from fund source. In other word, it represents the available for conducting its day to day operation of a business Therefore the theory used to under pin this work is working capital theory. Shin and Soenen (1998) posited that working capital is the result of the time lag in between the expenditure for the purchase of raw material and the collection of the sale of final goods. In theory, net working capital is defined as the difference between current asset and current liabilities. It implies that a company's short term asset, account receivable or inventories are financed by their short term liabilities (Akinwande, 2009). Thus, there are four drivers of working capital: cash, account receivable, inventory and account payable. Working capital is a significant source to provide liquidity, which is "a prediction to ensure that firms are able to meet it short-term obligations and its continued flow can be guaranteed from a profitable venture" (Padachi, 2006). However, increasing investment on working capital is considered as cash outflow since the money which invested in working capital is locked, which cannot be used in other business area (Autukaite and Molay, 2011). Therefore, a well-designed working capital management is an important part of financial management.

With an optimal level of working capital, firm value can be maximized (Deloof, 2003). But, how to reach this optimal level is the very thorny in management. To see this more clearly, I would like to present how working capital relates to firm value theoretically. In 1958, Modigliani and Miller demonstrated that capital structure is unimportant in a perfect market. However, the market is imperfect in reality. It involves different costs, taxes and bankruptcy. All these require that firms must have an optimal capital structure to fit for their situation most in order to maximize firm value. There are several ways to evaluate firm value, for example, multiple comparison analysis, discount dividend model. The discounted cash flow model is one of the most used alternatives to evaluate firm value, which emphasizes on the current liability and current asset. Working capital management is the decision which deals with the relationship between short term asset and short term liabilities. With an efficient working capital management, firm's liquidity will be improved, and firm value can be maximized by having an optimal level which meets working capital demands. With an efficient working capital management, firms can reduce the possibility of involving in financial constraints, reduce financial cost, and avoid the risk of bankruptcy (Luo, Lee, and Hwang, 2009).

Autukaite and Molay (2011) admit the importance of efficient working capital management in their study. They argued that companies with efficient working capital management stand a stronger chance of reducing their overdependence from external financing. This will make these companies financially independence. Inefficient working capital management normally has adverse effects on the performance, profitability and even the liquidity position of such companies on a continuous basis. Shin and Soenen (1998) also provide example to show the importance of efficient working capital management. They show that in the supermarket-industry Kmart, which has a comparable capital structure as competitor Wal-Mart, went broke mainly due to poor working capital management.

To make sure the optimal level of working capital management can be reached, there are four dimensions of working capital management should be considered: cash management, inventory management, account receivable management (debtor management) and account payable management (creditor management). Each element has its own characteristics. However, managers should take each component into consideration as a whole, since a trade-off exists in the relationship of each component. For instance, it is assumed that high turnover is the function of large inventory and generous trade credit policies, and that large inventory and a generous trade credit allows customers to assess product quality before paying (Long, Malitz & Ravid, 1993; Deloof & Jegers, 1996). However, "the flip side of grating trade credit and keeping inventory is that money is locked in working capital" (Deloof, 2003). Therefore, having a good knowledge on each element of working capital management can be very helpful in financial decision making.

METHODOLOGY:

The research design adopted for this study is correlational research in assessing the effect of working capital management on profitability. In a correlational research design, the aim is to investigate the relationship between variables and to observe the impact on the dependent variable, so as to establish causal relationship or otherwise among variables. The data used are extracted from secondary source from Financial Statement of Food and Beverages companies quoted in the Nigerian stock Exchange, and Facts book, the data cover the periods of 5years from 2010-2014. The study employs Ordinary Least Square

(OLS) Multiple Regression techniques of data analysis, this is because it is very powerful in statistical estimation, and examining the impact of one variable on another. The population of the study is made up of all Food and Beverages companies quoted on the Nigerian Stock Exchange which are 28 in numbers as at 31st Dec., 2012 (Fact book, 2012). The sample sizes of the study are 14 Companies drawn from the defined population and it is arrived at by means of Yamene (1967) sample size formula, and adjusted Yamene sample size, presented as follow;

Where;
N= number of the population
no= sample size
e= level of precision at 0.05
n= adjusted sample size.
Simple random sampling is a basic sampling design adopted in selecting the sample; this is because it allows equal representation which is used in selecting the 14 sampling size, but we end up using only 10 companies out of the sample size because of some challenges encounter in collecting data of some of the companies selected. The four (4) companies dropped are Golden Guinea breweries Plc, Big Treat Plc, P.S Mandrieds Plc and Union Dicon Salt Plc.

VARIABLES MEASUREMENT AND MODEL SPECIFICATION:
Dependent variable; Gross operating profit ratio has been used in this seminar to measure the company's profitability. This is used because it reflects the effectiveness of pricing policy and of production efficiency.

Independent variables;
Cash conversion cycle: this is used to calculate cash cycle in an organisation and is defined as; CCC= Inventory in days + Account receivable – Account payable.
Inventory turnover in days: is used to measure the rate of turnover in days and is given as; ITID= Inventory × 365day/ cost of sales.
Account payable in days: is the average time involve in buying of raw material, turning them into sellable stock and the time of cash payment related to them. It is given as;
APP= Account payable × 365day/ cost of sales
Account receivable in days: is the average time required in converting the company's receivable into cash and is given as;
ACP= Receivable × 365day/ sales

Control variable;
Size of the company is use because of the assumption that as companies grow in size, it is expected to have more sells than the smaller one. It is defined as;
LOS= Natural log of sales.
In order to test the hypotheses formulated for the study as stated earlier OLS and Multiple regression is used and the model developed for testing as shown below;

$$\mathbf{GOP_{it}} = \beta_o + \beta_1(CCC_{it}) + \beta_2(ITID_{it}) + \beta_3(ACP_{it}) + \beta_4(APP_{it}) + \beta_5(LOS_{it}) + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (i)$$

Where;
GOP= Gross operating profit margin
CCC= Cash conversion cycle
ITID= Inventory turnover in days
ACP= Account receivable in days
APP= Account payable in days
LOS= Size of the company

RESULTS DISCUSSION AND FINDINGS:

In this section, the description of the variables as used in the regression model is presented in table 1.

Table 1: Descriptive Statistics

	GOP	CCC	ITID	ACP	APP	LOS
Mean	0.8206	72.9511	81.2849	37.3465	45.6802	17.4923
Std. de	0.47041	48.89251	30.92599	47.49179	30.48132	0.99965
Min.	0.04	-30.03	31.74	7.31	2.69	15.88
Max.	2.11	278.96	166.39	341.91	161.49	19.03
skew.	0.598	1.283	0.649	5.603	1.330	-.264
Kurt.	-0.181	5.334	0.288	35.881	3.096	-1.386
N	50	50	50	50	50	50

Source: SPSS Output (Appendix 1)

The rule of thumb has it that profit margin ratio ranging from 20% to 30% may be considered as the standard norm for any industrial enterprise. From the descriptive statistics it can be seen that the average GOP of both companies is 0.82 indicating that the selected sample companies are operating above the standard with standard deviation of 0.47, meaning that both companies income deviate from each other with about 47%. This is showing a highest of 2.11 and a lowest of 0.04 between the companies. Cash conversion cycle as a measure of liquidity position can be to analyse the timing of cash inflows and outflows. From the table, CCC has an average of 72.95 which is approximately 73days meaning that is the average period of which the companies use to realizing its cash and cash equivalent with a standard deviation 48.89 approximately 49days between the companies. The result of minimum and maximum statistic which are -30.03 and 278.96 respectively is indicating that in some companies there is an indication that there account payable is greater than the summation of account receivable and inventory and higher in others. Inventory turnover is the measure of turnover in days. The table shows that ITID has an average of 81days indicating the number of days involved in purchasing and turning raw materials into finished goods and standard deviation explaining the deviation among the sample selected companies of 31days with some of the companies having a minimum or lowest of 32days and maximum or highest of 166days. Account receivables are funds of the companies in the hands of debtors. Result from the table is showing that the companies has an average collection period of 37days but sometimes the debtors fails to respond which takes the period to 47days above the average period with some of the companies collecting their own in 7days and others in about 342days. Account payable is the cash settlement to the credit providers The result from the table is indicating that, the sample selected companies are having an average of 46days to settle their creditors as they fall due with the standard deviation of 36days explaining the rate at which the companies differs in term of credit settlement and a lowest of 3days in some companies and a highest of 161days in some companies. LOS is having an average of 17.49 and a standard deviation of 0.14 with a minimum and maximum statistic of 15.88 and 19.03 respectively. The use of the size of company is as a result of the notion that bigger companies make more sales than smaller ones so the possibility of having a huge variation in profit reporting; hence its usage should be able to address that problem. The nature of the relationship of the variables is explained in the next section.

INFERENTIAL STATISTIC:

In this section, the statistics from which the study will draw inferences, test hypotheses formulated and draw conclusion is presented, discussed and analyzed. The section begins with the analysis of relationships among variables of the study.
Table 2 below presents the Pearson correlation coefficients among the variables involved in the study.

Table 2: Correlation Matrix

	GOP	ITID	CCC	ACP	APP	LOS
GOP	1					
CCC	-0.217*	1				
ITID	0.238	0.600**	1			
ACP	-0.317	0.373**	-0.200	1		
APP	0.149	-0.066	0.004	0.437**	1	
LOS	-0.185	-0.309	-0.123	-0.477**	-0.136	1

Source: Spss Output (Appendix 2)
*. Correlation is significant at the 0.05 level (2- tailed). **. Correlation is significant at the 0.01 level (2-tailed).

The colleration table shows the relationship between the dependent variable and the independent variables pairs in the regression model. The result is showing that the independent variables (CCC, ITID, ACP and APP) are fairly correlated with the dependent variable (GOP). It also indicates that while some are having positive correlation others are having negative correlation. ITID and APP are having a positive correlation at 5% level of significance and CCC and ACP are having a negative correlation also at 5% level of significance. GOP and LOS indicate a negative correlation at 5% level of significance. Never the less the result also indicates that some of the independent variables are having strong positive correlation, like CCC and ITID correlate at 1% level of significance.

In summary the result did not present any positive or negative significance correlation among the pairs variables which indicate the absence of multi-corelinearity. Multi-correlinearity exists only when the correlation coefficient is greater than 90% (stat notes, 2007).

REGRESSION RESULT AND HYPOTHESES TEST:

The results from the regression model of the study are presented in table 3 as follows (the study used the standardized coefficients of the independent variables in the analysis.)

Table 3: Summary of Regression Results of the Model

Variables	Coefficient	P-values	VIF	TV
R	0.640[a]			
R-Square	0.409			
Adj. R-Square	0.342			
F-Statistic	6.091	0.000		
Durbin Watson	1.592			
Constant	5.093	0.001		
CCC	-0.350	0.120	3.634	0.275
ITID	0.304	0.150	3.212	0.311
ACP	-0.447	0.051	3.677	0.272
APP	0.261	0.099	1.780	0.562
LOS	-0.433	0.003	1.427	0.701

Source: Spss (Appendix 3)

The regression results from the table present a positive statistical association between GOP and the independent variables, from the coefficient of multiple correlation R value of 0.640. The coefficient of determination R-Square of 0.409 indicates that about 41% of the variations in GOP are explained by the combined influence of the statistical significant variables used in the model. However, the adjusted coefficient of multiple determinations (Adj. R Square) of 0.342 implies that the independent variables accounted for 34% of the variation in the dependent variable. Furthermore the F-statistic from the table indicates the overall fitness of the model, which is 6.091 at 5% level of significant. The results indicate that the independent variables fairly affect the dependent variable. Based on this we are rejecting hypotheses two and three (H_{O2} and H_{O3}) which stated that; Inventory turnover has no effect on profitability of Food and Beverages companies in Nigeria, and that Account payable has no effect on the profitability of Food and Beverages companies in Nigeria. As their regression results are showing positive colleration of 23% and 15% respectively. The Durbin Watson statistic shows no serial correlation as the value is within the range of 1.5 and 2.5. So the result of 1.592 approximately 2 is accepting the absence of autocorrelation among the successive values of the variables in the model.

In addition, the table shows the absence of multi-collinearity among the independent variables as evidence from Variance Inflation Factors (VIFs) all showing a values less than 10 and the Tolerance value showing a value less than 0.2. It is a rule of thumb that if VIF value is above 10 and Tolerance value greater than 0.1 is an indication of an existence of multi-collinearity. This is supported by the values in the colleration table where all values are less than 90% among all variables. The result is showing a VIF values ranging from 1.427 to 0.701.

RESULT FINDINGS, DISCUSSION AND POLICY IMPLICATION:

Based on the results shown in the table, ITID has a positive effect on GOP from the coefficient of 0.304, implying that for every ₦1return on inventory, GOP will increase by 30.4%, even though the effect is not

significant as shown in the P-value of 0.15. Based on this we are rejecting the Null hypothesis three (HO_3) that said Inventory management has no effect on the profitability of Food and Beverages companies in Nigeria. So also APP indicate a positive effect on GOP from the coefficient of 0.261, implying that for every ₦1 delayed in settlement of debts to creditors will result to an increase of about 26.1% to GOP. The result leads us to reject hypothesis two (HO_2) which stated that Account payable has no effect on the profitability of food and Beverages companies in Nigeria.

On the other hand, the result of CCC shows a negative effect on profitability from the coefficient of 0.350, meaning that for every deficit of ₦1 of APP over ITID and ACP will decrease the GOP by 35.0, though this is not significant as shown from the P-value of 0.12, based on this result we are rejecting the null hypothesis four (HO_4) that says, Cash conversion cycle has effect on profitability of Food and Beverages companies in Nigeria. And finally, the result on ACP also shows a negative effect on GOP from the coefficient of 0.447, which implies that for every ₦1 not receive from debtors as at when due will decrease the value of GOP by 44.7%, this amount to about 51% as shown in the P-value. As such we are rejecting the null hypothesis one (HO_1) that stated that Account receivable has no effect on the profitability of Food and Beverages companies in Nigeria.

Following the tests conducted and the analysis of the results, the study found out that there is a positive relationship between working capital management and profitability via inventory turnover proxies (inventory turnover ×365/cost of sales) and Account payable in days (payable×365/cost of sales), and a negative relationship via cash conversion cycle proxies (inventory turnover + account receivable – Account payable) and Account receivable in days (Account receivable ×365/sales). This finding is in consistence with That of Deniel Mogaka Makori and Ambrose Jagongo PhD and the work of Mohammed Morshedur who find out that working capital management effect company's profitability but positively and negatively just as stated above. Meaning that any reduction in the working capital requirement will generates a free cash flow that the firm can distribute to the shareholders. Similarly, the work of Erick Rahn make use of ROA as the dependent variable and CCC, ITID , ACP and APP as the independent variables and find out that, working capital management effect profitability positively.

The implications of this study are that, any reduction in the working capital requirement will generate a free cash flow that the firm can distribute to the shareholders. It also indicates that by prolonging the payment of account payable, companies could actually improve its profitability.

CONCLUSION AND RECOMMENDATION:

Based on the results finding and literature review, we are concluding that working capital management has a positive and negative effect on the profitability of Food and Beverages companies in Nigeria. That if management will effectively manage its inventory by means of quick turning and delaying in settlement of her creditors, she will generate a free cash flow that she will distribute to her shareholders at the end of her accounting year. And again if companies can implement a good control of cash by expediting collection of cash from her debtors that will help her in controlling her liquidity position and be able to settle her day to day expenses. Making a reference to the result finding of this study, we are recommending that the management of Food and Beverages Companies in Nigeria should decrease their cash conversion cycle as it will lead to improving the company's performance in the form of increase in her profit generation, and again by decreasing their average collection period it will also in a long way improve company's profitability which will lead to generation of free cash flow to be distributed to shareholders at the end of accounting year.

In addition to this the study offers the following recommendations;

a. Indicates that, except only when a company is operating or producing seasonal goods, it should never allow its inventory to be above maximum level as regular turnover will lead to increase in the profitability of the company.
b. Just as review in literature that you should always heisted for the cash meant for you and apply some delay tactic in settlement of liability since the value of ₦1 today is not the same as value of ₦1 tomorrow. Company should always take advantage of creditors policy since excess funds can be re-invested elsewhere that will increase the return of the shareholders,
c. Company should be careful not to allow excessive length of time before cash could be collected from company's debtors. A good measure should be employed by the management to know when inventory is to be made available and when receivable is to be collected so as to achieve an effective cash cycle.
d. Food and Beverages companies should adopt the system of aggressive collection of debt from debtors as this will help the management of the company to tackle the problem of in-liquidity as well as taking a precaution against bad and doubtful debts.

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