



Working Capital Management and Performance of Selected Quoted Food and Beverages Manufacturing Companies in Nigeria

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ABSTRACT

This study examined the relationship between working capital management and organizational performance of selected food and beverages manufacturing firms in Nigeria. The study adopts ex-post facto research design. The population of study comprised the 18 food and beverage firms listed on the Nigerian Securities Exchange as at November 2020. Purposive and convenience sampling techniques were used to select seventeen companies (which have complete data till at least 2019 in the Nigeria Stock Exchange Fact book) out of the 18 quoted companies. Time series data were collected using secondary source from the published financial statements of the companies and Nigerian Stock Exchange from 2015 to 2019. Data were analyzed quantitatively using descriptive and inferential statistics. Findings revealed that average collection period had positive and significant effect on the return on assets of the selected firms ($R^2 = 64\%$; Adj R-sq = 61%; F-stat= 4.97, $p < .05$). Inventory Turnover in days influenced return on equity of the selected firms in Nigeria ($R^2 = 62\%$; Adj R-sq = 60% and F-stat= 5.93, $p < .05$). Average payment period had significant effect on return on investment of the selected firms ($R^2 = 60\%$; Adj R-sq=58% and F-stat= 4.93, $p < .05$). Lastly, cash conversion cycle had significant effect on return on sales of the selected firms ($R^2 = 65\%$; Adj R-sq = 62% and F-stat= 9.87, $p < .05$). The study concluded that working capital management has significant effect on organizational performance of selected food and beverages manufacturing firms in Nigeria. It was therefore recommended that management should pay attention to sound management of the companies' working capital components as they significantly influenced their profitability.

Keywords: Working capital, organizational performance, return on Assets, return on equity, Inventory turnover.

1. INTRODUCTION

The performance of the Nigerian manufacturing sector has attracted considerable attention since independence in 1960 because of its potential for rapid economic growth (Afolabi & Laseinde, 2019). A growing manufacturing sector reduces poverty through wealth creation and employment generation. Despite these potential, the performance of Nigeria's manufacturing sector has been declining over the years. This downward trend has been noticeable since the early period of the 1980s, (MAN, 2016). The Nigerian economy is faced with several hindrance factors such as bad governance, corruption, lack of policy implementation and persistence competition impeding the speed of having a good return on the resources employed and invested by manufacturing industries in Nigeria. Firm sustainability depends on the efficient utilization of the resources of the firm. As a result, proper planning and efficient capital management is required in order to remain in business in the highly competitive manufacturing industry in Nigeria. Globally, working capital is the most important tools that an organization must properly manage because it determines organizational survival (Dina & Silviye, 2018). Efficient working capital management is a vital element in maximizing organizational performance. It therefore requires maximum attention, proper planning and management.

Working capital implies net investment in current assets, after the current liabilities have been duly deducted. Working capital is one of the most important measurements of the financial position any

business entity (Ibrahim, 2018). It therefore requires careful management in every business organization, particularly the food and beverages manufacturing companies that forms the focus of this study.

Manufacturing sector plays a vital role in stabilizing economic activities and also serve as the engine tools to achieve economic growth and development in terms of employment generation, export, enhance economic performance and sources of foreign exchange earnings. The Nigerian manufacturing sector in the 1970s and 80s, contributed between 11% and 9.9% respectively to the Nation's gross domestic product (GDP). MAN, 2016 however reported that the contribution of the manufacturing sector to the nations GDP continues to fall in recent years due to poor management of working capital, crowding out effect of the foreign manufacturing firms, and importation of goods that can be produced locally MAN (2013) confirmed that Nigeria manufacturing sector contributes only 6% to the Nations' GDP and that there is reduction in industrial capacity utilization of Nigeria manufacturing sectors from 58% to 28%, in 2015. This indicate that most of manufacture products, including food and beverages products, are imported into Nigeria economy which in turn leads to crowding out effect of local manufactured products and inadequate to properly manage the working capital. During the first quarter of 2015, Nigeria manufacturing sector recorded a decline in manufacturing output from 7.03% in 2014 to 6.43% of GDP in the year 2015 (ibid).

Currently many local manufacturing industries in Nigeria are operating under unfavourable conditions such as poor energy supply, poor infrastructural facilities, lack of access to fund, security problem and high interest rates on bank loans. These continued to retard the growth of this sector (Madugba & Ogbonaya, 2016). Thus, the need for working capital and its management which involves financing, managing and controlling the current assets and current liabilities of a firm cannot be over-emphasised, especially in the food and beverages industry which, due to their nature, require large investments in working capital. The success or otherwise of these companies depends largely on proper management of working capital.

Performance evaluation of a company is usually related to how well the company can use its assets, share-holders' capital, liability, revenue and expenses to achieve organizational objectives (Awunya, 2018). The term is also used as a general measure of a firm's overall financial strength over a given period of time and can be used to compare similar firms within industries or sectors.

This study evaluated the relationship between working capital management and performance of selected food and beverages manufacturing firms in Nigeria, and come up with evidences to establish the level of relationship that exists between working capital management and performance of the firms under different conditions and therefore generate information that would be used for better control and management of working capital in the Nigerian food and beverages manufacturing companies. The study takes into account key variables that can possibly affect and influence working capital management. The choice and selection of variables is influenced by the past research and different studies conducted by different scholars on Working capital management. Working capital management will be measured in this study using average collection period (ACP), inventory turnover in days (ITID), average payment period (APP) and cash conversion cycle (CCC), while performance would be measured with return on assets, return on equity, return on investment and return on sales.

To attain this objective, the following four hypotheses were formulated and tested at 5% significance level:

- H0₁ Average collection period has no significant effect on the return on assets of selected food and beverages manufacturing companies in Nigeria.
- H0₂ Inventory turnover in days does not influence return on equity of selected food and beverages manufacturing Companies in Nigeria.
- H0₃ There is no significant effect of average payment period on return on investment of selected quoted food and beverages manufacturing companies in Nigeria.
- H0₄ There is no significant effect of cash conversion cycle on return on sales of selected food and beverages manufacturing companies in Nigeria.

2.0 Review of Related Literature

Working Capital and working capital management

Working capital is the difference between an organisation's current assets and current liabilities. It is the fund that is made available for the day to day running of the business. Working capital

management implies the application of strategies and policies in the implementation of a firm's current assets and liabilities in such a way that an optimal level of working capital level is maintained to foster a satisfactory level of profitability and maximize shareholders' wealth (Olaoye & Ogundipe, 2019).

Working capital management involves maintaining efficient levels of both components of working capital (that is, current assets and current liabilities) in respect to each other in order to attain organizational objectives (Kabuye, Akugizibire & Bugambiro, 2019). Efficient working capital management ensures that a company has sufficient current assets to meet its short-term debt obligations and operating business expenses whenever due. An effective working capital management system enhances a company's chances of improving its revenues and earnings bases by having strict control on the current assets and current liabilities. The tools of an effective working capital management are ratio analysis and management of individual components of working capital. In this study, the management of individual components of working capital, proxied by average collection period, inventory turnover in days, average payment period and cash conversion cycle are the tools used to assess the firms' performance.

Objectives of Working Capital Management

The two major objectives of working capital management are to increase the profitability of a company and to maintain sufficient liquidity to meet short-term obligations as they fall due. (Ajayi, Segun & Taiwo, 2017). Profitability is related to the goal of the shareholder on wealth maximization, so investment in working capital should be made only if a favourable return is expected to be obtained therefrom. A company should have working capital policies on the management of inventory, trade receivables, cash and short-term investments in order to minimize the possibility of illiquidity and inefficiency (Aminu & Zainudin, 2015)

Average Collection Period (ACP)

Average collection period is approximately the time that business takes to receive payments owed to it (Sujeewa, 2015). It is an independent variable that is used as a proxy for collection policy. It is calculated by dividing account receivable by net credit sale and multiplying with 365 days. The average collection period is therefore the average number of days between the date that a credit sale is made, and the date that the money is received from the customer.

Inventory Turnover in Days (ITID)

One of the major investment areas of a business is its inventories. Businesses need to be able to keep track of how long it takes to convert inventory into cash because this may significantly affect the firm's performance particularly in terms of profitability and liquidity. Inventory turnover is used by firms to understand how they are performing overtime and relative to other firms in the same industry. This information can be used to improve on inventory management, efficiency and profitability (Tanveer, Muhammad & Sadaf, 2016).

Average payment period (APP)

Average payment period refers to the time taken to pay company's creditors. Delaying payments to suppliers allows a firm to assess the quality of the products bought and also the firm can conserve some cash which would be used to pay the suppliers and in other operations to maximize profits. On the other hand, delaying payments to suppliers can be very costly especially if there is a trade discount for early payment. It can also ruin the credit reputation for the firm in the long run if credit agreements are not honoured (Shrivastava & Kumar, 2017).

Cash Conversion Cycle (CCC)

Cash conversion cycle is the length of time from the payment for the purchase of raw materials to manufacture a product until the collection of account receivable from the customers (Niman, 2015). It is an important measure of the efficiency of working capital management, the cash conversion cycle is a powerful performance measure for gauging a company's efficiency of managing its working capital resources.

Organizational Performance

Performance is the result of an organization in effectively managing its resources to develop competitive advantage (Ironkwe, 2017). There are two types of performance measures, financial and non-financial performance measures. In this study, organizational performance is measured in terms of financial profitability measures, proxied by Return on Assets (ROA), Return on Equity (ROE), Return on Investments (ROI) and Return on Sales (ROS).

Return on Assets

This is the ratio of profit before interest and taxes to assets. It is a very important ratio for firms to decide whether to invest on a new project or not. Firms invest on a project they expect to earn adequate return on. If return on assets is more than the firm’s cost of borrowing, the project is acceptable, otherwise, it is rejected. The return on assets is very important and provide a standard for gauging how efficiently the management employs the average amount which is invested in the firm’s assets, whether the amount comes from investor or creditors.

Return on Equity

The Return on shareholders’ equity (ROE) is calculated to see the profitability of owners’ investment. It is net profit after taxes divided by shareholders’ equity (Pandey, 2010). It is the percentage of profit the company makes for every monetary unit of equity invested in the company. ROE does not specify how much cash will be returned to the shareholders, since that depends on the company’s decision about dividend payments. ROE is a good measure of the extent to which the company is able to generate a return that is worth whatever risk the investment may entail.

Return on Investment

The conventional approach of calculating ROI is to divide profit after taxes by investment. In this study, investment is taken as total net assets, alternatively known as capital employed (ibid). It is a performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. To calculate ROI, the return of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio.

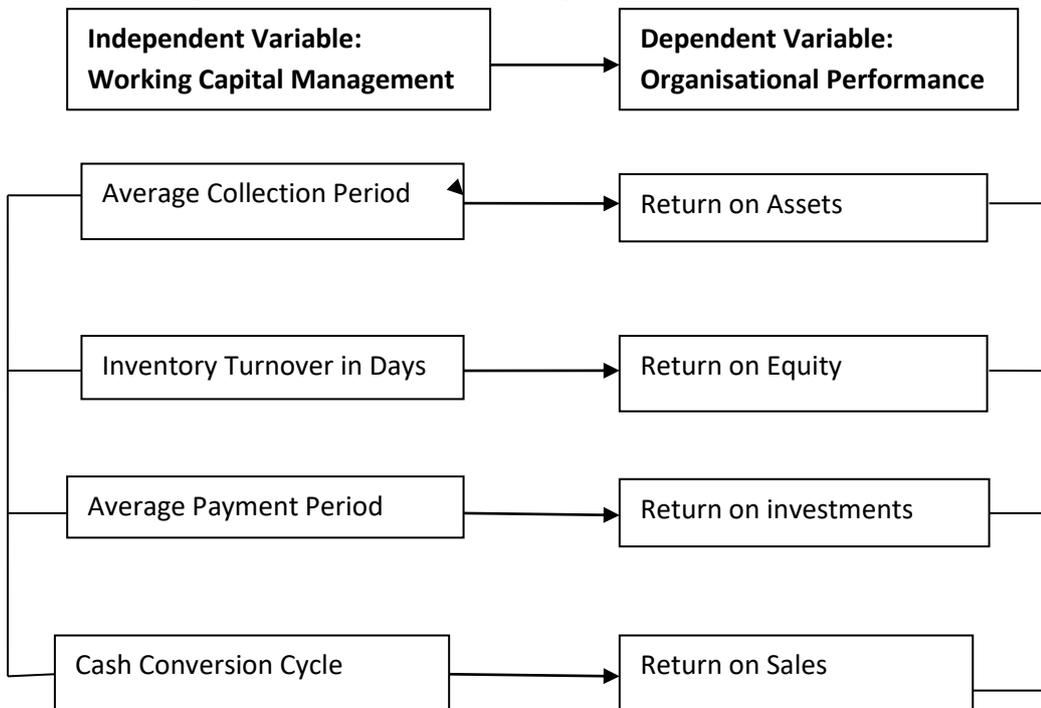
Return on Sales

The ROS (return on sales) is the ratio of the profit that the firm has achieved for each Naira of sales.. A high return on sales ratio indicates that the company is selling its products efficiently and that its profits are likely to be sustainable; a low return on sales indicates the contrary. Investors often use ROS ratios to find out about a company’s efficiency.

2.1.3 Conceptual Framework

In conducting this study, a conceptual framework was developed to show the relationship between the independent variables and dependent variables. In this study, the dependent variable is organizational performance and the independent variable is working capital management.

The conceptual framework for the study is as follows:



Source: Authors Field work, 2020

2.2 Theoretical Review

The two theories that underpin this study are Agency theory and the resource-based theory.

2.2.1 Agency Theory

Accordingly, in this paper we track the emergence of agency theory across a century of business scholars and business events, showing how the apparent inability of both management practitioners and scholars to address the problem of managerial agency, despite some obvious attempts, encouraged development of this now seminal theory (cf., Berle & Means, 1932; Fama & Jensen, 1983; Jensen & Meckling, 1976). This problem was famously highlighted by Adam Smith (1776), in his seminal work, *The Wealth of Nations*, which posited how the emergence and increasing prevalence of the joint stock company created a dangerous gulf between owners and managers.

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The agency theory was highlighted by Adam Smith (1776) in his seminal work “*The Wealth of Nations*” Agency theory is developed as framework for analyzing conflicting interests between key stakeholders, in addition to the development of mechanisms for resolving conflicts. The theory explains the relationship between principals and agents in business. An agency relationship is defined as one where one or more persons (being referred to as the principal(s)) engages another (the agent) to perform some tasks or service on their behalf which has to do with delegating some authority in terms of decision making³³. This theory is relevant to this study because the principals (shareholders or owners of the business) who engaged the agents (management) expect satisfactory performance from their investments. This can only be achieved if the working capital is well managed to improve the performance of the selected food and beverages company.

2.2.5 Resource Based Theory

The resource based theory emanates from the principle that the source of a firm’s competitive advantage lies in their internal resources as opposed to their positioning in the external environment. This theory, rather than simply evaluating environmental opportunities and threats in conducting business, competitive advantage depends on the unique resources and capabilities that a firm possess, Barney (1995). The resource based theory states that the fundamental sources and main drivers of firm’s competitive advantage and superior performance are mainly associated with the attributes of their resources and capabilities. Firm resources could be classified as physical, human, and organizational resources. The physical resources are the technology, plant and machinery, geographical location, and access to raw material. The human resources are the training, experience, judgment, intelligence and relationships present in an organization. The organizational resources are the formal systems and structures as well as informal relations among groups. Firms resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge etc controlled by a firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness. Barney says that resources of an organization can ultimately lead to strategic advantage if for it if it has four characteristics, that is, if the resources are valuable, rare, costly to imitate and non substitutable (ibid). This theory is very relevant to this theory because working capital is a major component in most organizations and it would exert a major impact on the firm’s performance and organizational value.

2.3 Empirical Review

Ani, Okwo and Ugwunta (2012) studied the effect of working capital management on profitability, evidence from top five beer brewery firms in the world. The study focused on working capital management as measured by Cash Conversion Cycle (CCC), and how the individual company's CCC influenced the the profitability of world leading Beer Brewing firms. Multiple regression equations was applied to a cross sectional time series. It was found that working capital management as represented by CCC, sales growth, and lesser debtors collection period impact on beer brewing firms' profitability. This study however concentrates only on five beer manufacturing companies in the whole world and may not therefore be representative of all manufacturing firms. Also the study is not representative of African countries, talk less of Nigeria.

Akoto, Awunyo and Augin (2013) examined the relationship between working capital management practices and profitability of listed manufacturing firms in Ghana. The study used secondary data collected from all the 13 manufacturing firms in Ghana, covering 2005 – 2009. The study found out significantly negative relationship between profitability and account receivable days. The gap in this study however is its consideration of only accounts receivable days and cash conversion cycle as the only dependent variables.

Ganze, Ahmet and Emin (2012) examined the relationship between working Capital and firms' performance for 75 manufacturing firms listed on Istanbul Stock Exchange, Turkey, for 9 years (2002 – 2009). Dynamic panel data analysis was used. Findings showed that firms can increase profitability measured by gross operating profit by shortening the collection period of accounts receivables and CCC. However, the study considered the cash collection cycle which effect on performance may not necessarily be the same as effect of other components of working capital on performance.

Salawu and Alao (2014) studied working capital management and performance of quoted manufacturing companies in Nigeria. The study used annual data from annual reports and accounts of 60 purposively selected non-financial quoted firms in Nigeria stock exchange fact book. Descriptive and inferential statistics were used. Results showed that Average Collection Period and Average Payment Period were positively and significantly related to profitability. However, Inventory Turnover in Days and Cash Conversion Cycle were significantly but negatively related to profitability. Net trading cycle was negatively but not significantly related to profitability. The gap is the fact that the study considered manufacturing firms generally whereas the focus of the current study is on quoted food and manufacturing companies in Nigeria.

Osundina (2014) studied working capital management and profitability of quoted food and beverages companies in Nigeria. Secondary data of 120 firm-year observations between 2002 and 2011 were used. Survey design research was used, and data was analysed using inferential and descriptive statistics. The dependent variable was Net Operating Profit (NOP). The study found out that there was relatively strong, positive and significant relationship between working capital management and Net Operating Profit. There was positive but insignificant relationship between Cash Conversion Cycle and Net Operating Profit. Account Collection Period had positive but insignificant relationship with Net Operating Profit, while Account Collection Period and Cash Conversion Cycle had insignificant and negative relationship with Net Operating Profit. The gap identified here is that there is only one dependent variable, which is Net Operating Income. Current study considered four dependent variables of ROA, ROE, ROI and ROS, while the independent variables are Average Collection Period, Inventory Turnover in Days, Average Payment Period and Cash Conversion Cycle. Most of the empirical studies above support the fact that working capital management impact corporate profitability, that reducing working capital investment would positively affect the profitability of firm by reducing the net investments and therefore costs in working capital management. The studies are however limited by geographical coverage as in Ani et al (2012), or number of dependent variables as in Gamze et al, Akoto et al (2013), and Osundina (2013). The present study takes care of these limitations by localizing the area to Nigeria and enlarging the number of dependent variable to four, in addition to making use of more recent literature to find out the relationship between working capital management and performance of selected food and beverages manufacturing companies in Nigeria.

3.0 METHODOLOGY

Ex-post facto research design was adopted for this study which included quantitative approaches using information from the companies' financial statement which serve as the source for the secondary data. The population of the study comprised the 18 food and beverage firms listed at the Nigerian Securities Exchange, as at December 2019 (Table 1). The food and beverage industry was chosen for this research because of the sizeable growth of the industry as a whole. A sample of 17 quoted food and beverages manufacturing companies were purposively selected, being those that have published complete financial records as at 31 December, 2019.

Table 1 Breakdown of Food and Beverages Companies in the Nigerian Stock Exchange

S/N	Listed Companies	Product
1.	Cadbury Nigeria Plc	Food drinks
2.	Champion Brewery Plc	Alcoholic drinks
3.	Dangote Flour Mills Plc	Flour, Indomie etc
4.	Dangote Sugar Refinery Plc	Sugar
5.	Flour Mills of Nigeria Plc	Flour, Wheat
6.	Guinness Nigeria Plc	Beer, Stout, Malt etc
7.	Honeywell Flour Mills Plc	Flour
8.	International Breweries Plc	Alcoholic drinks
9.	Friesland Campina WAMCO Nig Plc	Food drink
10.	Northern Nigeria Flour Mills Plc	Flour
11.	National Salt Co. Nigeria Plc	Salt
12.	Okomu Oil Palm Company Plc	Vegetable oil
13.	Nestle Nigeria Plc	Food drinks
14.	Nigerian Brewery Plc	Beer, malt, water etc
15.	Multi – Trex Integrated Food Plc	Food drinks
16.	FTN Cocoa Processor Plc	Food drinks
17.	Union Dicon Salt Plc	Salt
18.	Presco Plc	Vegetable Oil

Source: Nigerian Stock Exchange Fact Book (2020)

3.1 Method of Data Collection

This study used secondary data. Time series data of return on asset, return on equity, return on investment and return on sales were sourced from published annual reports of firms concerned. Other secondary data and financial reports were also extracted from fact book, websites, and Nigeria stock Exchange. The justification for the use of secondary data is based on the fact that this study is a quantitative research, which tries to find out an aftermath effect; as such data that is historical in nature were analyzed. In addition, previous researchers on working capital management and firm's performance had equally made use of secondary data because of the reliability of such data. The data will covered a period of 5 years from January 2015 to December 2019.

4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

In this section , the empirical results are presented and interpreted, beginning with summary statistics, followed by Variance Inflation Factor, Hausman test, as well as OLS Regression Analysis.

Preliminary Analysis for Working Capital Management and Organizational Performance

	ROA	ROE	ROI	ROS	ACP	ITID	APP	CCC
Mean	24.31671	12966.16	15.03512	46.26471	3465.336	46.26471	3044.206	3465.336
Median	21.89462	3210.875	13.20962	45.60000	391.5650	45.60000	2379.500	391.5650
Maximum	43.26613	80092.56	38.38656	65.10000	18768.90	65.10000	6523.000	18768.90
Minimum	13.23075	56.79000	8.709660	29.10000	10.67000	29.10000	984.0000	10.67000
Std. Dev.	6.705915	34635.58	6.280374	9.350511	5711.326	9.350511	1628.875	5711.326
Skewness	0.781287	5.041300	2.394577	0.256759	1.571292	0.256759	0.735082	1.571292
Kurtosis	3.352854	7.975146	8.792416	2.747954	4.006082	2.747954	2.198378	4.006082
Jarque- Bera	3.635368	26.15208	80.02479	0.463572	15.42473	0.463572	3.972305	15.42473
Probability	0.162401	3.543000	0.798000	0.793116	0.900447	0.793116	0.137222	0.510447
Sum	826.7681	440849.6	511.1939	1573.000	117821.4	1573.000	103503.0	117821.4
Sum Sq. Dev.	1483.987	1543.210	1301.622	2885.258	1082.309	2885.258	8755.6712	1082.409

Author’s Computation (2020)

The statistical measure of central tendency, dispersion, skewness, kurtosis and normality test described the characteristics of the above data. The Jarque-Bera (JB) statistic rejected the null hypothesis of normal distribution for all the variables (ROA, ROE, ROI, ROS, ACP, ITID,

Test of Hypothesis One

Table 4.1 Dependent Variable: ROA; Panel Regression result based on Return on Asset

Variables	Pooled (OLS)	Fixed effect	Random effect
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
C	0.52382(0.4201)	0.52347(0.5492)	0.85233(0.3192)
ACP	0.10828(0.040)**	0.07955(0.031)**	0.07708(0.0489)**
R-sq	0.551518	0.455438	0.641975
Adj R-sq	0.520403	0.439446	0.618642
F-stat	10.63598	1.911033	4.972931
Dur-Wat stat	2.101975	2.120874	2.017399
Prob(F- stat)	0.003558	0.036431	0.000373

Source: Author’s Computation (2020)

Average collection period does not have any effect on return on assets of selected food and beverages manufacturing firms in Nigeria. The finding of this study revealed that average collection period had significant effect on return on assets of selected food and beverages manufacturing firms in Nigeria.

Test of Hypothesis Two

Dependent Variable: ROE; Panel Regression Result based on Return on Equity

Variables	Pooled (OLS)	Fixed effect	Random effect
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
C	0.52382(0.4201)	0.52347(0.5492)	0.85233(0.3192)
ITID	0.2645(0.540)	0.6259(0.331)	0.6324(0.3489)
R-sq	0.45341	0.39738	0.621985
Adj R-sq	0.42243	0.37216	0.603482
F-stat	4.62198	2.43321	5.931031
Dur-Wat stat	2.101975	2.120874	2.017399
Prob F- stat)	0.000678	0.004121	0.001878

Source: Author’s Computation (2020)

The second objective of the study, Inventory turnover in days does not have any effect on return on equity of selected food and beverages manufacturing firms in Nigeria. The results revealed inventory turnover in days influenced return on equity of selected food and beverages manufacturing firms in Nigeria. The finding is consistent with works by Oseifua (2018) and Uwaoma & David (2017) that there is a positive relationship between inventory conversion period and profitability.

Hypothesis Testing Three

Dependent Variable: ROI; Panel Regression Result based on Return on Investment

Variables	Pooled (OLS)	Fixed effect	Random effect
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
C	1.4906 (0.9245)	1.1370 (0.0874)	1.539(0.0414)
ROI	0.64855(0.0177)**	0.62590(0.0785)*	0.6337(0.0830)*
R-sq	0.58211	0.46731	0.611985
Adj R-sq	0.56293	0.43241	0.583482
F-stat	7.21898	2.43321	4.931031
Dur-Wat stat	2.0925	2.43087	2.38765
Prob(F- stat)	0.003158	0.005321	0.002176

Source: Author’s Computation (2020)

Hypothesis three is to show that average payment period has no effect on the return on investment of selected food and beverages manufacturing firms in Nigeria. The result showed that average payment period had a significant effect on return on investment of selected food and beverages firms in Nigeria. The findings of this study agree with those who found that debtors’ collection period has positive relationship with profitability and earlier confirmed by Etale & Bingilar (2016) and Aminu & Zainudin (2015).

Hypothesis Testing Four

Dependent Variable: Return on Sales; Panel Regression Result based on ROS

Variables	Pooled (OLS)	Fixed effect	Random effect
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
C	0.32312(0.1301)	0.42327(0.1892)	0.76233(0.3212)
CCC	0.10828(0.040)**	0.074325(0.031)**	0.02709(0.0189)**
R-sq	0.591518	0.515438	0.654375
Adj R-sq	0.561203	0.49766	0.625744
F-stat	12.65318	5.43633	9.874331
Dur-Wat stat	2.0075	2.387874	2.47099
Prob(F-stat)	0.00528	0.054343	0.00363

Source: Author’s Computation (2020)

The finding of hypothesis four revealed that cash conversion cycle has significant effect on return on sales of selected food and beverages manufacturing firms in Nigeria. The finding is consistent with the Cash Conversion Cycle (CCC) Theory which is used to determine the amount of cash needed for any sales level. The cash conversion cycle is used as a comprehensive measure of working capital as it shows the time lag between expenditure for the purchase of raw materials and the collection of sales of finished goods.

6.0 CONCLUSION AND RECOMMENDATION

This research investigated the effect of working capital management on organizational performance of selected food and beverages manufacturing firms in Nigeria. Working capital refers to the management of current assets and current liabilities. Working capital is the flow of readily available funds necessary required for continuous operations of an enterprise. Working capital management

therefore is a process of determining the firms' policy in planning for its current assets and liabilities holdings in financing its routine operations. Working capital management concerns primarily with the management of current assets and by extension the current liabilities of a business. Poor management is the main reason for business failure as many corporate organizations went into liquidation in Nigeria because of poor management.

Based on the findings of this study, the following recommendations are suggested:

Manufacturing companies should pay attention to sound management of their working capital management components since the results show that they do affect profitability, although to a lesser significance.

The selected food and beverages firms' management to understand the relationship that exists between various working capital components and profitability and the direction that they affect the profit for effective management of the working capital.

The managers of selected food and beverages should enhance performance by reducing the number of days in inventories, cash conversion cycle and net trading cycle to a reasonable minimum. This can be accomplished by improving the inventory control process.

The managers of selected food and beverages should maintain a more restrictive credit policy as well as good corporate governance is entrenched in their overall operations. Accounts receivable should be collected more quickly by improving the efficiency of the collection process as debt should be collected in line with the agreed credit terms.

REFERENCES

- Afolabi, A. & Laseinde, O. T. (2019). Manufacturing Sector Performance and Economic Growth in Nigeria. *Journal of Physics: Conference Series* 1378 (2019) 032067 IOP Publishing doi:10.1088/1742-6596/1378/3/032067
- Ajayi, M.A, Segun, A & Taiwo O (2017), Impact of Working Capital Management on Financial Performance of Quoted Consumer Goods Manufacturing Firms In Nigeria, *Covenant Journal of Business & Business*, Vol. 8 No. 2
- Akoto, K and Awunyo, T. (2013). Working Capital Management and Profitability: Evidence from Ghanaian Listed Manufacturing Firms. *Journal of Economic and International Finance* 5(9), 373-379.
- Aminu, Y., & Zainudin, N. (2015). A review of anatomy of working capital management theories and the relevant linkages to working capital components: A Theoretical Building Approach. *European Journal of Business and Management*, 7 (2), 10-18.
- Ani, U. W., Okwo, I. U. and Ugwunta, O. (2012). Effect of working management on profitability: Evidence from the top Five Beer Brewing Firms in the World. *Asian Economic and Financial Review*, 2(8), 966-982.
- Barney, J. B. (1995) Looking inside for Competitive Advantage. *Academy of Management Executives*. Vol. 9(4)
- Dina, K. & Silvije, O. (2018). The Impact of Working Capital Management on Profitability of Croatian Software Companies: *Zagreb International Review of Economics & Business*, Vol. 21, No. 1, pp. 47-65, 2018
- Gamze, V., Ahmet, G and Emin (2012) Effects of working Capital Management on Firms' Performance: Evidence from Turkey. *International Journal of Economics and Financial Issues*. 2(4) pp488-495)
- Ibrahim,Sardar Shaker (2018). Impact of working capital management on profitability of Industrial sector in Iraq: *Journal of Finance & Banking Studies* 7(1), 2018: 27-32: <https://doi.org/10.20525/ijfbs.v7i1.837>
- Ironkwe, U. I. & Wokoma, D. A. (2017). "Working Capital Management and Firms Financial Performance of Oil Companies in Nigeria". *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 1. Vol. IV (Jan. 2017), PP 01-17
- Kabuye, F.; Kato, J.; Akugizibwe, I. & Bugambiro, N. (2019). Internal control system, working capital management and financial performance of supermarkets in Uganda, *Cogent Business and Management*, 6(1), pp. 119. <https://doi.org/10.1080/23311975.2019.1573524>

- Madugba, J. U. & Ogbonnaya, A. K. (2016). Working Capital Management and Financial Performance: Evidence From Manufacturing Companies In Nigeria: *European Journal of Accounting, Auditing and Finance Research*, 4(9), No.9, 98-106
- Manufacturing Association of Nigeria Report (2016)
- Niman, I. (2015). The impact of working capital management on firm's profitability: Evidence from selected manufacturing companies in Somali Regional State, Ethiopia. Unpublished thesis submitted to the collage of business and economics department accounting and finance in in partial fulfilment of the requirements for the degree of Masters of Science in Accounting and Finance, Addis Ababa University
- Osundina J. A. (2014). Working Capital Management and Profitability of Selected Quoted Food and Beverages Firms in Nigeria. *European Journal of Accounting, Auditing and Finance Research*. Vol. 2(3) pp19-21.
- Orumwense, J. O. & Mwakipsile, G. (2017). Working Capital Management and Managerial Performance in some Selected Manufacturing Firms in Edo State Nigeria: *Journal of Accounting, Business and Finance Research*, 2017, Vol. 1, No. 1, pp. 46-55
- Pandey, I. M. (2010). *Financial Management* (10th Ed.) Vikas Publishing House PVT Ltd. Delhi.
- Sujeewa, K. (2015). Impact of Working Capital Management on Profitability: A Study on Listed Manufacturing Companies in Colombo Stock Exchange. *Proceedings of 12th International Conference on Business Management*
- Salawu, O. R. and Alao, J. A. (2014) Working Capital Management and the Performance of selected Manufacturing Companies in Nigeria. *Research Journal of Finance and Accounting*. Vol. 5(14)
- Osundina, J. A. (2014). Working Capital Management and the Performance selected Food and Beverages Manufacturing Companies in Nigeria. *European Journal of Accounting and Finance Research*. Vol. 2(3). Pp 10-21