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Working Capital Management and Firms Profitability: Evidenced from the Consumer Goods Sector in Nigeria

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Abstract

The consumer goods sector is a vital sector in Nigeria due to the tremendous contributions of the sector to the growth of her economy. Despite this, there is a dearth of studies on the effect of working capital management (WCM) on the profitability of this sector in Nigeria, and the few studies that have been conducted have used other profitability measures different from the profitability measure (return on sales) used in this study. Also, conflicting results have been reported by previous studies on the effect of WCM on the profitability of the consumer goods sector in Nigeria. Hence, this study investigated the effect of WCM on the profitability of the consumer goods sector in Nigeria. The study employed an expost- facto research design and data were obtained from 13 (Thirteen) quoted consumer goods firms on the Nigerian Stock Exchange for the period of 2011- 2020. Descriptive analysis, Pearsons' Correlation, panel ordinary least square estimation, and Hausman test were conducted. The Hausman test chose the fixed effect model as the appropriate model and the results showed that cash conversion cycle and accounts payable days have a significant positive effect on the profitability of Consumer goods firms in Nigeria, while inventory days have a significant negative effect on their profitability. The study showed that effective WCM has a significant impact on the profitability of consumer goods firms in Nigeria and recommended that managers are to adopt strategies that would aid the achievement of efficient WCM practices.

Keywords: *Working Capital Management, profitability, Consumer goods sector*

Introduction

Working capital management (WCM) is essential to firms' operations irrespective of size, industry, and sector because it involves the effective management of short-term investment and financing decisions which are vital components of corporate finance theory (Nor & Noriza, 2010; Sharma & Kumar, 2011; Shikha & Aman, 2016; Simon, Sawandi & Abdul-Hamid, 2017; Naseem, 2018). WCM involves fundamental financial decisions taken by the finance managers, which entails prompt payment of obligations that falls due in the short-term and meeting firms' daily expenses. Also, it is an indispensable instrument for the day-

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to-day functioning of business firms which assist in balancing both their Current asset and current liabilities (Ukaegbu, 2014; Iman & Mehdi, 2019). Salami, Suleiman, Ishola and Iyanda (2019) posit that WCM is a prerequisite for profitability and the gauge for the financial health of firms by investors as well as a means of accessing their creditworthiness by creditors. According to Prasad, Sivasankaran, Samit, and Manoharan (2019), efficient working capital reduces the need for short-term borrowing and encourages more concentration on long-term borrowing for new investment opportunities and business expansion.

Ineffective WCM is one of the leading causes of business distress and failures in the global world because many firms have concentrated on other components of corporate finance, thereby paying little attention to working capital policies and management (Ernst & Young, 2015). Before the 2008 global financial crisis, firm managers had focused on dividend decisions, investment decisions, and capital budgeting than WCM, which had contributed to their poor performance during this period. PWC survey on firm's working capital performance after the financial crunch showed that the working capital performance of firms globally has declined by £300 billion over the years (PWC, 2016). This experience made firms realize that efficient use of internal resources reduces the need for external financing by improving their liquidity position (Rydel, 2012). The Covid- 19 pandemic and its lockdown period experience across the globe further increased the need for more focus on liquidity and working capital enhancement as they are vital for the survival of firms in coping with the aftermath effect of the pandemic (PWC, 2021).

In Nigeria, ineffective WCM is connected directly to business failures. This inefficiency has resulted in the loss of profitable investments owing to illiquidity, and negative credit rating, which has prevented business firms from getting external financing from financial markets and institutions (Adegoke, 2007; Oluboyede, 2007; Olugbenga, 2010). Furthermore, manufacturing firms in Nigeria strive for survival in the face of several challenges, including difficulty in raw materials procurement, volatile exchange rate policies, and poor infrastructure facilities (Korode, 2017). The financial institutions in Nigeria are not helping out as expected due to the high-interest rate on debt financing, which can reduce the firms' returns on investment (Dada, Kolapo & Mokuolu, 2012). To remain in business amid these challenges, business managers must effectively manage their WC (Yahaya, 2016).

Research Problem

Globally, inefficient management of working capital always harms business performance as it could result in higher cash tied up or inadequate investment in working capital (Kumar, Sivasankaran & Kanagaraj, 2020).

Despite the vast literature on working capital management and firms' profitability in Nigeria (David, 2010; Sung & Soocheong, 2015; Muhammad, Sarfaraz & Shahbaz, 2017; Sulaiman, Abdul & Khadijah, 2018; Solanke, Ahmed & Kabiru, 2019; Vanessa & Cordelia, 2021), there is still a dearth in the study of the impact of WCM on the profitability of the consumer goods sector in Nigeria, and the few studies on the impact of WCM on the profitability of the consumer goods sector revealed conflicting results. Some studies revealed that WCM has a significant influence on the profitability of the consumer goods sector (Eya, 2016; Muhammad et al., 2017; Kajola, Abogun & Odediran, 2017; Okoye, Erin, Modebe & Achugamonu, 2020), while others revealed that WCM has an insignificant effect on the profitability of the consumer goods sector (Akinleye & Adeboboye, 2019; Olaoye & Adeboboye, 2019; Oduwole & Ademola, 2020). The consumer goods sector is a vital sector that has contributed tremendously to the overall development of Nigeria's economy (Olaoye & Adeboboye, 2019).

Also, previous studies on the impact of WCM on a firm's profitability in Nigeria have used other profitability metrics apart from return on sales. As a result, the aim of this study is to contribute to the limited literature on the impact of WCM on the profitability of the consumer goods sector in Nigeria, using return on sales as the profitability metric. Return on Sales (ROS) is a profitability ratio that measures the amount of profit made by the consumer goods sector through productive activities.

Research Objectives

The broad objective of this study is to evaluate the impact of WCM on the profitability of the consumer goods sector in Nigeria, while the specific objectives are:

(i) To examine the impact of Cash conversion cycle on the return on sales of consumer goods industries in Nigeria.

(ii) To examine the effect of account payable days on the return on sales of consumer goods industries in Nigeria.

(iii) To examine the effect of inventory days on the return on sales of consumer goods industries in Nigeria.

Literature Review

Conceptual Literature

The Concept of Working Capital Management; Working capital management (WCM) Centre's on the capacity of firms to have the sufficient cash flow to settle all short-term financial commitments and to continue operations into the foreseeable future. Takon (2013) referred to WC as the period between the purchase of raw materials and cash collection from the sale of finished products. Bambang, Elen, and Sri (2017) opined that management's ability to effectively manage their Current Liabilities (CL) and Current asset (CA) would largely determine the development, performance, and future of their business. Although many factors impact firms' profitability; however, WCM efficiency is critical because working capital represents the highest proportion of firms' expenses, especially in manufacturing or non-financial firms' as it represents 30% to 40% of business firms' overall investment (Ani, Okwo & Ugwunta, 2012; Muhammad et al., 2017).

Return on Sales; Return on sales is a profitability ratio that measures a firm's operating profit generated from product sales. It signals the financial health of any firm. This ratio scrutinizes firms' operational productivity and is a key performance indicator of organizational achievement over time (Investopedia)

Consumer Goods Sector; The consumer goods sector is a sector of the Nigerian economy dominated by manufacturers of daily consumable products. According to Adebayo (2016), the consumer goods sector in Nigeria is a flourishing hub for many blue chips multinational and domestic companies because of the larger target market for their products, and the effective management of the working capital components of these companies is key to their survival. According to Korode (2017), the consumer goods sector can ensure stabilization in economic activities through its numerous contributions in terms of employment creation, increased exportation, improved balance of trade position, and a veritable source of foreign exchange earnings for the country. Furthermore, the sector consists of industries that specialize in the manufacturing of products consumed daily by consumers (Olaoye & Adeboboye, 2019).

Profitability; Every business organization aims at achieving profitability which is key to their short and long-term survival, it is also an indicator of organizational success. Profitability is derived from the excess

of revenue over cost (Otekunrin, Nwanji, Fagboro. Olowokere & Adenike, 2021). For this study, return on sales (ROS) would be used to measure profitability. ROS is a vital performance indicator of firms' achievement that measures the level of their operating profit generated from sales and signals their financial health by scrutinizing firms' operational productivity.

Theoretical Framework

Cash Conversion Cycle Theory

This theory was propounded by Richards and Laughlin (1980) and is centred on the principle that the relationship between a firm's financial returns and WCM is limited to the association between the cash conversion cycle (CCC) and a firm's profitability. This theory states that a shorter CCC indicates an efficient WCM that increases the firms' corporate entity's solvency, value, and profitability, and a long CCC indicates an inefficient WCM with a resultant reduction in profitability and firm value. The trade-off between WCM and profitability can be positive or negative (Richard & Laughlin, 1980).

Agency Theory

Jensen and Meckling (1976) developed the agency theory. Based on their idea, the relationship between shareholders of companies and their managers is a principal-agent relationship whereby the shareholders are the principal while the managers are the agent acting on their behalf. In theory, shareholders' interest should be the priority of firm managers and it involves increasing the value of their investment and wealth; in fact, managers often fail to meet this expectation because they may pursue personal ambitions at the expense of shareholders' interests. Furthermore, due to the large number of stakeholders in an organization, managers could assume the role of balancing conflicting interests and objectives of individual stakeholders that could compromise the wealth maximization objective of the shareholders. The theory failed to consider other stakeholders that contribute to the effective management and success of an organization because it focused on the belief that agents can be self-interested.

Empirical Review

Sung and Soocheng (2015) evaluated the effect of WC on restaurant firms' profitability in USA using a sample size of 298 restaurant firms for the period between 1963 to 2012. The study showed that an optimal WC exists for restaurant firms. This was indicated by a strong inverted U-shaped relationship between WC and the profitability of restaurant firms. The study stressed the importance of cash management for effective

WCM as it impacts firms' profitability, more so, most restaurant firms in the US have a stringent WCM policy. The study recommended an interactive effect among profitability, cash levels, and working capital.

Muhammad et al. (2017) investigated the effect of WCM on firms' profitability using three Scandinavian countries which are Denmark, Norway, and Sweden. The findings of the study revealed that Cash conversion cycle, receivable days, payable days, and inventory days have a negative relationship with firm profitability indicating an all-encompassing recovery period with a positive impact on the profitability and operation of the firms. Also, a positive relationship exists between firm profitability, working capital and current ratio, this result shows the significance of excess current assets on firms' profitability.

Khan, Shagor, Kalam and Ahmed (2020) examined the relationship between WCM and textile industry performance in Bangladesh. A sample of 49 textile firms was used and data obtained covered the period 2000- 2018. Also, ratio analysis, quartile, and regression analysis were conducted on the sample firms' data while the results of the analysis revealed that age and payment deferred period have a negative relationship with earnings power while sponsor shareholding, days sales outstanding, cash conversion cycle, inventory collection period, fixed asset turnover, and total asset have a positive effect on the basic earning power of the textile firms. The researchers identified a learning presence which has the possibility of reducing agency conflict among shareholders and managers.

Dabo, Andow and Shekari (2018) evaluated the impact of WCM on listed manufacturing firms' financial performance in Nigeria for the period 2011 to 2016 using 47 listed manufacturing firms. Ordinary least square estimation technique was used by the study and the findings show that CCC has no significant effect on listed manufacturing firms' performance in Nigeria while Inventory ratio has a positive and significant effect on firm performance. It is recommended that firms should maintain a short CCC while there should be continuous improvement in inventory management to improve performance. Sulaiman et al. (2018) studied the effect of WCM on the profitability of listed consumer goods firms (CGF) in Nigeria from 2010 to 2016. The study used 16 quoted CGF and ordinary least square estimation technique, while the result of the analysis revealed that the Trade Payable Period, Current ratio and Inventory Conversion Period have an insignificant effect on ROA while Trade receivable period (TRP) has a significant and positive relationship with ROA. the study concluded that WCM has no positive effect on profitability and recommended that

Firm managers should adopt tighter control on credit period in order to increase the liquidity of the firm as well as reduce the need for external financing for daily operations.

Akinleye and Adeboboye (2019) evaluated the impact of WCM on listed manufacturing firms' performance in Nigeria from 2008 to 2017 using correlation matrix and static data analyses. The study revealed that both the Average Collection Period (ACP) and the Average Payment Period (APP) have an insignificant effect on earnings per share and return on capital employed. Also, they found a unidirectional causality relationship between WC and manufacturing firms' performance. Oduwole and Ademola (2020) investigated the relationship between the components of WC and the performance of food and beverages companies in Nigeria for the period 2014 to 2018 using multiple regression analysis. The result revealed a positive and insignificant relationship between WCM and the performance of food and beverage companies in Nigeria. The study recommended that firm managers should ensure better management of their firms' accounts payable as well as adopt policies that will aid the reduction in their CCC.

Solanke et al. (2019) looked into the effect of WCM manufacturing firms' corporate profitability in Nigeria from 2010 to 2015 using a sample size of four (4) firms. Theyused a two-stage sampling process which is univariate and multivariate and the results showed an insignificant relationship between ROA and account payables; and a negative relationship between CCC and profitability. Olaoye and Adeboboye (2019) carried out a comparative analysis between the performance of industrial and consumer goods firms in Nigeria and their WCM using 20 firms for a ten (10) years period. They employed static panel data analysis and the result showed that ACP has an insignificant and positive effect on ROCE of industrial sector firms while ACP and APP have a negative and insignificant effect on ROCE of consumer goods firms. Thus, in terms of ROCE, the effects of WCM variables on the performance of industrial goods firms and consumer goods firms are mixed. Hence, in order not to jeopardize their creditworthiness, each sector must adopt strategies that would enhance the efficient management of their working capital components, especially the average payment period.

Phuong and Hung (2019) evaluated the influence of WCM on the profitability of Vietnam firms using a sample of 5295 firms for the period of 2009 – 2018. The study employed the generalized least square regression estimation technique and the result revealed that all the working capital components impact negatively on firms' profitability. Khalid, Saif, Gondal and Sarfraz (2018) studied the impact of WCM on

the electrical equipment sector's profitability in Karachi from 2017 to 2012 using the ordinary least square estimation technique. The result showed that all working capital components have a significant and positive impact on firms' profitability.

Abdul- Khadir, Abdul and Aliyu (2020) examined the effect of WCM on ten quoted conglomerate firms' performance in Nigeria from 2006 to 2016, using structural equation modelling. They revealed that the Account Payable Period and Cash Conversion Cycle have a positive and significant effect on the financial performance of conglomerate firms in Nigeria. On the other hand, both the Average Receivable Period and Inventory Turnover Period negatively affected the performance of conglomerate firms. They recommended that conglomerate firms should optimize investment in working capital as well as adopt strategies that would reduce the CCC period.

Kajola et al. (2017) investigated the effect of WC on quoted consumer goods manufacturing firms' performance in Nigeria for the period 2005 to 2014. The study used a sample size of 15 firms and the regression analysis technique result revealed that WCM has a positive relationship with the return on asset (ROA) of consumer goods manufacturing firms in Nigeria except for CCC which has a negative relationship. Kajola et al. (2017) ascertained the effect of WC on 15 quoted consumer goods manufacturing firms' performance in Nigeria for the period 2005 to 2014. They revealed that almost all the WCM variables have a positive relationship with the return on asset (ROA) of consumer goods manufacturing firms in Nigeria except CCC which has a negative relationship.

Okoye et al. (2020) evaluated the effect of WCM on consumer goods sector performance in Nigeria using a sample of 40 firms for the period between 2006 – 2015. The ordinary least square estimation technique was used and the result showed that the WC components have a positive and significant impact on a firm's profitability except for the Average Payable Period (APP) which has a negative and insignificant effect on the firm's profitability. Eya (2016) evaluated the impact of WCM on the food and beverages industry's performance in Nigeria for the period 2004 to 2013 using Nestle Nigeria Plc as the case study. Using the ordinary least square estimation technique, the study showed that both the current ratio and the quick ratio have positive and significant effects on ROA. The study recommended that the management of Nestle Nigeria Plc should ensure adequate management of cash by putting idle cash into productive use.

Mache and Omodero (2021) investigated the effect of WCM on the profitability of sixteen (16) consumer goods manufacturing firms in Nigeria from 2014 to 2019, using Pearson's correlation and panel least square regression. They revealed that APP and CCC have an insignificant effect on profitability while the inventory conversion period (ICP) has a negative and significant relationship with profitability. They, therefore, recommended that firm managers should ensure that proper attention is given to the management of the WC components.

Dada, Kolapo and Mokuolu (2021) examined the effect of WC on the consumer goods sector corporate financial performance in Nigeria from 2013 – 2017 using a sample of five (5) firms. They employed the panel estimation technique and the result of the research work revealed that ACP and CCC have a negative and insignificant effect on the profitability of the consumer goods sector in Nigeria while the APP has a negative and significant effect on profitability. It was suggested that consumer goods firms implement an effective debt collection plan aiming at shortening the receivable collection period, which would boost firm profitability.

Ajayi, Abogun and Odediran (2017) used correlation and panel regression analysis to examine the impact of working capital management on the financial performance of listed consumer goods manufacturing firms in Nigeria from 2005 to 2014. They discovered a negative and insignificant association between CCC and financial performance, as well as a positive and significant relationship between ACP and ROA. There is also a significant relationship between WC and gross operating profit (GOP). Furthermore, a positive relationship exists between ACP, inventory turnover days (ITD), and GOP, while a negative relationship exists between APP, CCC, and GOP. ACP and APP have a significant effect on GOP while ITD and CCC have an insignificant effect on GOP.

Methodology

This study investigated the effect of working capital management on the profitability of firms listed in the consumer goods sector of the Nigerian Stock Exchange (NSE). The study used the ex-post facto research design and a sample size of thirteen (13) firms, out of the twenty-seven (27) firms listed in that sector of the NSE. Relevant data were then obtained from the annual financial reports of sampled firms for ten (10) years from 2011 to 2020. This study used static panel estimation techniques (Pooled OLS, fixed effect, and random effect) to ascertain the parameters of economic relationships and to draw inferences accordingly.

Model Specification

The functional relationship of the effect of working capital management on the profitability of firms listed in the consumer goods sector of the NSE is given as:

$Y = f(X)$ Eq. 1

Where:

Y is the dependent variable (profitability), and

X is the independent variable (working capital Management).

Using Return On Sales (ROS) as the proxy for profitability we have:

ROS = f (CCC, ID, APD, CVR) Eq. 2

Following Nobanee and AlHajjar (2014), Bhatia and Srivastava (2016) and Salami et al. (2019), and using the ratio of current asset to total asset ratio, the size of the firm, and leverage as control variables, we specify the model for the study as:

$ROS_{it} = \beta_0 + \beta_1 CCC_{it} + \beta_2 ID_{it} + \beta_3 APD_{it} + \beta_4 CATA_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + e_{it}$ .Eq. 3

Where:

ROS_{it} = return on sales of firm i at time t

CCC_{it} = Cash conversion cycle of firm i at time t

ID_{it} = Inventory days of firm i at time t

APD_{it} = Account payable days of firm i at time t

$CATA_{it}$ = Current Asset to Total Asset ratio of firm i at time t

$Size_{it}$ = size of the firm of firm i at time t

LEV_{it} = leverage of firm i at time t

β_0 and β_1, i = 1,…, 6 are parameters estimated.

e_{it} = the error term

Table 1: Description of Study Variables

S/N	Variable	Variable Type	Measurement	Expected Signs of Explanatory Variable
1	Return on Sales (ROS)	Dependent	EBIT/ Turnover	
2	Cash Conversion Cycle (CCC)	Independent	Receivable Days + Inventory Days – Payable Days	-
3	Inventory Days (ID)	Independent	Inventory/ (Cost of Sales) *365	-
4	Account Payable Days (APD)	Independent	Account Payables/ (Cost of Sales) *365	+
5	Current Asset to Total Asset (CATA) ratio	Control	Current Asset/Total Asset	+
6	Size	Control	Natural Log of Total Asset	+
7	Leverage	Control	Total Debt/Total Asset	-

The control variables are included in the model to account for firm characteristics and enhance the quality of the result. These variables have been proven to have a significant influence on profitability (David, 2010; Bambang, et al., 2017, Iman & Mehdi, 2019).

Results and Discussions

The descriptive statistics in table 2 below show that the mean value of ROS across the sampled consumer goods firms in Nigeria for the period is 7% which implies that the firms were profitable within the period of study, the maximum and minimum values are 202% and -130% respectively, the minimum loss of 130% calls for concern for the industry. The mean value of the CCC is -57 days, which implies that the consumer goods sector finances its operations from its working capital while the maximum and minimum days are 287 days and -8336 days respectively. The mean value of ID is 103 days implies that it takes the sampled firms 103 days to sell their inventories while the maximum and minimum days are 371 days and 8 days respectively. The mean value of APD is 166 days, this implies that consumer goods firms delay payment

to suppliers for 166 days, this is good in as much as it does not compromise their creditworthiness and integrity while the maximum and minimum days are 624 days, and 7 days respectively. Delay in the payment of goods by companies makes short term funds available to the firms' but it could be harmful if it compromises their credit worthiness as it could disqualify them from enjoying further credit from suppliers or attract other sanctions from the supplier.

Table 2: Descriptive Statistics

	ROS	CCC	ID01	APD
Mean	0.073077	-56.55385	103.2308	165.6308
Median	0.130000	5.000000	86.50000	153.0000
Maximum	2.020000	287.0000	371.0000	624.0000
Minimum	-13.06000	-8336.000	8.000000	7.000000
Std. Dev.	1.179779	737.2499	55.04086	104.4490
Skewness	-10.69541	-11.01691	1.570833	1.647899
Kurtosis	120.0166	124.2555	6.946589	7.023452
Jarque-Bera	76648.34	82270.43	137.8305	146.5233
Probability	0.000000	0.000000	0.000000	0.000000
Sum	9.500000	-7352.000	13420.00	21532.00
Sum Sq. Dev.	179.5524	70116332	390805.1	1407338.
Observations	130	130	130	130

To examine the existence of multicollinearity, Pearson's correlation was conducted for the variables. The result in table 3 shows that CCC and ID are negatively correlated while CCC and APD are positively correlated. ID and APD are positively correlated with ROS while ID is negatively correlated with ROS, the correlation coefficients among the independent variables are less than 0.5 therefore there is no problem of multicollinearity.

Table 3: Pearson's Correlation result

	ROS	CCC	ID01	APD	CATA	SIZE	LEV
ROS	1.000000	0.980086	-0.025914	0.113668	-0.148395	0.142529	-0.101744
CCC	0.980086	1.000000	-0.024210	0.002466	-0.078945	0.150857	-0.106809
ID01	-0.025914	-0.024210	1.000000	0.277900	-0.099228	-0.337997	-0.050875
APD	0.113668	0.002466	0.277900	1.000000	-0.056363	-0.190867	0.104951
CATA	-0.148395	-0.078945	-0.099228	-0.056363	1.000000	-0.311577	0.013856
SIZE	0.142529	0.150857	-0.337997	-0.190867	-0.311577	1.000000	0.067385
LEV	-0.101744	-0.106809	-0.050875	0.104951	0.013856	0.067385	1.000000

Table 4 below presents the result of Hausman specification test which is the criteria for estimating the model. The null and alternative hypotheses are expressed as follows:

H_0: *Random effects are independent of explanatory variables*

H_1: *Ho is not true*

Criteria: If the probability of the Hausman test result is statistically significant we will reject the null hypothesis in favour of the alternate hypothesis. The probability value of the Hausman test is 0.0045 which is statistically significant at 1% significance level hence we reject the null hypothesis, which implies that the fixed effect regression model is the appropriate model.

Table 4: Hausman Specification Test

Correlated Random Effects – Hausman Test

Test cross – section random effects

Test summary	**chi-sq. statistics**	**chi-sq. d.f.**	**prob.**
Cross-section random	18.833727	6	0.0045

Table 5 presents the panel fixed effect model results which were used to ascertain the effect of working capital management on the profitability of quoted consumer goods firms in Nigeria. The result shows that the Cash conversion cycle (CCC) has a positive and significant effect on the profitability of consumer goods firms. This means that increase in CCC by one day would lead to an increase in ROS by 0.0015%. This result is consistent with the study of Okoye et al (2020) and Abdul-khadir et al (2020). Although this result is contrary to the a- priori expectation, the result shows that consumer goods firms' in Nigeria operate a conservative working capital policy which would increase their profitability.

There is a positive and significant relationship between APD and ROS, this result implies that an increase in the account payable days by one would result in 0.0009 increase in firms' profitability. The result shows that delaying account payable days enhances the ability of firms to efficiently finance their operational activities due to the availability of funds. This result is consistent with the study of Ajayi et al. (2017), and Okoye et al. (2020).

Table 5. Panel Fixed Effect Result

Variable	C	CCC	ID	APD	CATA	SIZE	LEV
Coefficient	-0.069604	0.001559	-0.001981	0.000939	0.011875	0.035703	-0.003471
Prob.	0.9238	0.0000	0.0000	0.0001	0.9264	0.6896	0.7244

R-squared: 0.987603
Adjusted R-square: 0.985593
F- Statistics: 491.2745
Prob (F- statistics): 0.000000
Durbin- Watson Stat: 1.933094

ID has a significant negative effect on ROS. This implies that a reduction in the inventory days by one day would lead to 0.002% increase in profitability because funds would be available for firms' operations. The result is consistent with the study of Owolabi and Alu (2012) and Abdul-khadir et al. (2020). All the working capital components are significant at 1%. All the control variables have an insignificant effect on the profitability of consumer goods firms in Nigeria. CATA and size have a positive effect on ROS while Lev has a negative effect on ROS.

The Adjusted R-Square indicates that 98.6% variation in ROS is explained by the independent variables. Also, the joint significance of all the variables is high as evidenced by the F- statistics of 491.27 which is statistically significant at 1%. The Durbin-Watson result of 2 approximately shows the absence of autocorrelation in the model.

Conclusions and Recommendations

From the discussion of findings above, the study concluded that the working capital components (Cash conversion cycle (CCC), Inventory days (ID), and account payable days (APD)) have significant effects on the profitability of the consumer goods sector in Nigeria under the period under consideration. The study recommends that managers efficiently manage their inventory days using the appropriate inventory management strategy that enables a high stock turnover into cash for higher profitability. In addition, consumer goods firms should ensure proper management of their account payable days to preserve their

integrity and creditworthiness. Effective working capital management in consumer goods firms is imperative; firm managers are encouraged to adopt measures and strategies to achieve and sustain the best WCM practices.

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