CREDIT MANAGEMENT AND FIRM PERFORMANCE: EVIDENCED FROM THE CONSUMER GOODS SECTOR IN NIGERIA

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Abstract
Inefficient credit management can threaten firms' profitability and existence as a going concern, and consumer goods firms operating in an unstable and unfriendly business environment are more vulnerable to any laxity in credit management because consumer goods firms have considerable investments in account payables and receivables. This study examined the impact of credit management on the performance of the consumer goods sector in Nigeria. The ex-post-facto research design was used for the study, and data were obtained from the financial statement of Thirteen quoted firms in the consumer goods sector from 2011 to 2020. The study conducted descriptive analysis, Pearson's Correlation, and panel ordinary least square estimation on the variables. At the same time, the Hausman test was carried out to choose the correct model for the study. The fixed-effect model was chosen, and the result revealed that the average collection period and Account payable period significantly impact the profitability of Consumer goods firms in Nigeria. The study showed that effective credit management significantly impacts the profitability of consumer goods firms in Nigeria. The study recommended that firm managers of consumer goods firms in Nigeria should implement a liberal credit management policy to improve their profitability, and the service of factoring companies can be employed to prevent the incidence of bad debt which could arise from the liberal credit management policy.

***Keywords**: Credit Management, performance, Consumer goods sector, Credit Policy*

INTRODUCTION

Credit transactions are inevitable in firms seeking growth and larger market share as it is a business strategy that increases firms' sales. In achieving the objectives of increasing market share and sales by firms, credit management becomes imperative because it involves formulating and implementing credit policies that facilitate the quick conversion of credit sales to cash. Credit management is essential to the survival and success of any firm that engages in credit transactions because it enhances the timely conversion of credit sales to cash hence boosting firms' liquidity position as well as enabling them to take advantage of other investment opportunities without much reliance on external financing; Furthermore, it improves firms' profitability position and reduces the chances of credit transactions becoming doubtful and bad debt (Agu & Basil, 2013).

Credit management focuses on the effective management of firms' financial debts, safeguards and manages investments in debtors as well as formulation and implementation of policies and procedures that guide the process of granting credit to customers, collection of payment as at when due, and reduction to the barest minimum the risk of bad debt (Mahad *et al*., 2018**).** Effective and efficient credit management is germane to a firm's profitability, stability, and continuity because a deficiency in the area of credit management by firms usually results in poor financial performance, which is harmful to the firm's going concern in the long run as well as inhibits firms from meeting immediate financial obligations due to liquidity problem which is a fall out of the inability of firms to convert sales to cash.

Firms have long recognized trade credit as a marketing and business strategy to increase sales volume, gain more significant market share and client loyalty, retain customers, and achieve a desired profit level (Ismail and Anwarul, 2021). Furthermore, credit sales enable firms, more importantly, consumer goods firms, to compete favorably with other players in the industry and attract potential customers that buy the company's product on agreed favorable terms to both buyer and seller (Mahad *et al*., 2018**).**

Even though consumer goods firms increase their sales volume through credit advancement in the form of trade credit, the sales achieved can only translate to cash and profitability when the proposed increased sales exceed the cost of receivable management because finance cost incurred on account receivables depends on the amount and age of the receivable (Mahad *et al.*, 2018**).** According to Dunn (2009), timely collection of cash from credit sales is critical to the survival of any business enterprise because credit sales which are accounted for as account receivables, represent up to 15 % to 20% of the total asset of most manufacturing companies and it is the most significant proportion of their current asset.

Trade credit can expose firms to liquidity risk if there is a delay in payment beyond the agreed period or any deviation from the agreed trade credit terms, which would threaten the financial health and performance of firms (Agu & Basil, 2013). Furthermore, firms operating in countries where there is uncertainty in financial conditions are faced with the challenge of making accurate credit decisions, and this decision is based mainly on the financial and economic condition of the county in the firm is operating as well as the degree of risk related to credit sales (Abosede & Dada,2021).

In Nigeria, Poor credit management has been recognized as the leading cause of business failure, especially when credit transactions become bad debt which ultimately results in liquidity challenges for firms (Ismail and Anwarul,2021). Furthermore, the prevalence of unhealthy competition among firms which sometimes results in prioritizing gaining more significant market share and increased sales volume at the expense of liquidity, has shifted management focus from effective credit management and formulating the appropriate credit policy, which is detrimental to the firm's liquidity and profitability (Raymond *et al*., 2015). Hence there is a need for firms to ascertain the impact of credit management on their profitability and improve the strategies and policies implemented for effective credit management.

This study will examine the impact of credit management on the performance of the consumer goods sector in Nigeria and contribute to the scarce literature on credit management in this sub-sector of the Nigerian economy. This study would enrich the existing knowledge on the impact of credit management on firms' performance in the consumer goods sector because extant literature on this is inconclusive, and a rarely used proxy will be used to measure the profitability of the consumer goods sector.

This study's broad objective is to examine the impact of credit management on the performance of the consumer goods sector in Nigeria, while the specific objectives are

1. To examine the impact of the account receivable period on the return on sales of the consumer goods sector in Nigeria.

2. To examine the effect of account payable days on the return on sales of the consumer goods sector in Nigeria.

Credit management is the process of availing customers of credit, determining the terms of credit, ensuring payment of the credit as at when due, and ensuring strict compliance to formulated credit policy. Effective credit management involves a proactive and continuous process of diagnosing risks, estimating the possible loss, and tactically guarding against risks associated with credit extension (Edwards, 2004).

CREDIT POLICY

Credit policy serves as the basis for the regulation of credit sales and other requirements that ensures the reduction in the incidence of bad debts in an organization and help the organization maximize the benefits related to account receivables and trade credit (Fidelis and Umoffong, 2020). According to Kalunda *et al*. (2012), credit policy could be lenient or stringent. *Lenient credit policy* is the policy adopted by firms to grant customers credit on a liberal basis that allows customers to enjoy trade credit without necessarily ascertaining their credit standing, while stringent credit policy centers on availing credit to only credit-worthy customers with strict adherence to company's stated checklist for availing credit to customers.

TRADE CREDIT

Trade credit is a marketing strategy involving selling products or rendering services without immediate payment. Trade credit is guided by the trade credit terms, which are agreed upon by both the buyer and seller at the point of consummating the credit transactions. In the ordinary course of business, trade credit is usually enjoyed by the company's long-standing customers with good credit ratings (Investopedia).

TRANSACTION COST THEORY

This theory was first proposed by Schwartz (1974). It states that firm managers can evaluate the creditworthiness of their customers as well as monitor and ensure prompt payment of credit more than the financial institutions, which gives them a cost advantage over the financial institutions concerning credit transactions and assessment of customers' creditworthiness can be achieved through ordinary dealings with customers. According to Petersen and Rajan (2017), this cost is classified into three: salvaging value from existing assets, information acquisition, and control of buyers. The theory shows the importance of considering a customer's credit standing and the financial implication of credit before opting for or receiving trade credit offers from suppliers or customers. This theory is relevant to this study because it gives a better understanding of the concept of trade credit in trade relations and highlights the possible costs and benefits of trade credit to consumer goods-producing firms.

EMPIRICAL LITERATURE

Ismail and Anwarul (2021) investigated the influence of credit management methods on the profitability of listed industrial goods firms in Nigeria. The study employed a descriptive research design using a questionnaire to obtain information from the respondents. One-way ANOVA and regression analysis were used to analyze the data collected, and the study findings showed that the receivable collection policy and credit risk assessment has a positive and significant effect on the profitability of the industrial goods sector in Nigeria. The study recommended that firms adopt stringent credit policies and obtain the service of qualified credit administrators to improve the firm's credit management. Abosede and Dada (2021) studied the

effect of credit management on manufacturing firms in Nigeria from 2013 to 2018. Two quoted firms were used as the sample size, and the result of the research revealed a significant relationship between a manufacturing firm's profitability and credit management. Furthermore, it is recommended that cash be quickly converted into cash.
Gideon and Olusola (2019) evaluated the effect of credit management on the profitability growth of manufacturing firms in Nigeria from 2007 to 2016 using panel regression analysis, and five firms were used as samples for the study. The result of the study revealed that effective credit management improves a firm's profitability.

Innocent *et al*. (2017) examined the effect of credit management on the liquidity position of brewery firms in Nigeria using the data obtained from the financial statements of the three sample firms. The study showed that account receivable and account payable ratios significantly affect the liquidity position of manufacturing firms in Nigeria. In contrast, the debt ratio does not significantly affect their liquidity position. The study recommended that firms eliminate losses due to bad debt, minimize other costs related to credit extension, and, at the same time, maintain adequate liquid assets.

Raymond *et al*. (2015) examined the effect of credit management on the liquidity and profitability of manufacturing companies in Nigeria. The study employed a descriptive research design, and the data obtained were analyzed with financial ratios and ANOVA. The result of the study revealed that liquidity position and debtor turnover are significantly correlated, and a positive relationship exists between profitability and credit management.

Mahad *et al*. (2018) examined the effect of credit management on the profitability of telecommunication companies in Garowe using a descriptive cross-sectional research design. Data used for the study were obtained through the administration of a questionnaire and analyzed with the ordinary least square estimation technique. The result of the study revealed that credit risk control, client appraisal, and collection policy have a positive and significant effect on profitability. The study recommended that the strict credit policies of telecommunication companies should be relaxed for easy client assessments and smooth credit collection procedures by customers.

Fidelis and Umoffong (2020) evaluated the impact of credit management policy on the financial performance of listed consumer goods in Nigeria from 2016 to 2019 using fifteen firms as a sample for the study. The study revealed that the average collection period and debt-equity ratio have a positive relationship with the financial performance of consumer goods companies. In contrast, only the average collection period significantly affects their performance. The study recommended that companies should implement good credit policies that would enhance their financial performance.

Adedeji *et al*. (2018) examined the effect of credit management on the performance of small-scale enterprises in Nigeria. The study used a questionnaire to obtain information used in examining this relationship, and descriptive statistics were used to analyze the data collated through this instrument. The study revealed that many small-scale businesses need the skills to keep proper records of their financial transactions.

RESEARCH METHODOLOGY

This study used an ex-post facto research design and purposive sampling technique to select the sample size for the study based on the availability of relevant data. Thirteen (13) listed consumer goods firms were used as the sample size, and relevant data were extracted from their annual financial report for ten years from 2011 to 2020. This study employed the panel least square estimation technique because of its robustness and the nature of the data set. The Pearson correlation analysis was used to test for the presence of multicollinearity among the variables.

MODEL SPECIFICATION

The general model for this study is

Y = f(X) …………………………… Eq. 1

Where Y is the dependent variable (performance)

X is the independent variable (credit Management).

The linear model is stated as follows:

ROS = f (ACP, APD,U) ………………. Eq. 2

$ROS_{it} = \beta_0 + \beta_1 ACP_{it} + \beta_2 APD_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 CLTA_{it} + e_{it}$ …………..Eq. 3

Where,

ROS = return on sales

ACP = average collection period

APD = Account payable days

LEV = leverage

SIZE= Size of the firm

CLTA= Current liabilities to total asset

RESULT

TABLE 1. DESCRIPTIVE STATISTICS

	ROS	ACP	APD	LEV	SIZE	CLTA
Mean	0.073077	5.230769	165.6308	1.618231	7.851456	0.396769
Median	0.130000	57.00000	153.0000	1.275000	7.869811	0.395000
Maximum	2.020000	269.0000	624.0000	13.55000	8.683590	0.740000
Minimum	-13.06000	-8416.000	7.000000	0.220000	6.968145	0.060000
Std. Dev.	1.179779	746.0088	104.4490	1.561083	0.447746	0.155774
Skewness	-10.69541	-11.19152	1.647899	4.180365	-0.082720	-0.207494
Kurtosis	120.0166	126.8505	7.023452	29.05882	2.191330	2.728708
Jarque-Bera	76648.34	85799.77	146.5233	4056.886	3.690471	1.331499
Probability	0.000000	0.000000	0.000000	0.000000	0.157988	0.513888
Sum	9.500000	680.0000	21532.00	210.3700	1020.689	51.58000
Sum Sq. Dev.	179.5524	71792263	1407338.	314.3703	25.86146	3.130243
Observations	130	130	130	130	130	130

Source: Authors' computation, (2022)

The descriptive statistics in Table 1 above show that the mean value of ROS across the sampled consumer goods firms in Nigeria for the study is 7 %; this implies that the firms were profitable within the study period. 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 ACP is 52 days, while the maximum and minimum days are 269 days and -8416 days, respectively. The mean value of APD is 166 days, while the maximum and minimum days are 624 days and 7 days, respectively.

TABLE 2: PEARSON'S CORRELATION RESULT

	ROS	ACP	APD	LEV	SIZE	CLTA
ROS	1.000000	0.986344	0.113668	-0.101744	0.142529	-0.169243
ACP	0.986344	1.000000	0.124270	-0.087906	0.143828	-0.088443
APD	0.113668	0.124270	1.000000	0.104951	-0.190867	0.042911
LEV	-0.101744	-0.087906	0.104951	1.000000	0.067385	0.498388
SIZE	0.142529	0.143828	-0.190867	0.067385	1.000000	-0.005458
CLTA	-0.169243	-0.088443	0.042911	0.498388	-0.005458	1.000000

Source: Authors' computation (2022)

To examine the existence of multicollinearity, Pearson's correlation was conducted for the variables. The result in table 2 shows that ACP and APD are positively correlated, while ACP 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: 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	20.742838	5	0.0009

Source: Authors' computation (2022)

Hausman specification test is the criteria for estimating regression models for a panel data set. The null and alternative hypotheses are stated below:

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 0.0009 which is statistically significant at a 1 % significance level hence we reject the null hypothesis, which implies that the fixed effect regression model will be used to estimate the model.

Table 4. Fixed Effect OLS Result

Variable	C	ACP	APD	LEV	SIZE	CLTA
Coefficient	-0.1197	0.0016	-0.0007	0.0014	0.0429	-0.0882
prob.	0.8640	0.0000	0.0015	0.8986	0.6228	0.5976

R-squared 0.987754
Adjusted R-square 0.985896
F- Statistics 531.4224

Prob (F- statistics) 0.000000
Durbin- Watson Stat 1.879761
Source: Authors' computation (2022)

DISCUSSION

The fixed effect model results in Table 4 above show that ACP has a significant positive effect on the profitability of consumer goods firms in Nigeria. This result implies that an extension in the collection period of the consumer goods firms in Nigeria would lead to an increase in their profitability. This result is consistent with the findings of Fidelis and Umoffong, 2020, and Ismail and Anwarul (2021) and in contrast to the study of Al-Eitan *et al*. (2023), and Hoang *et al*. 2019.

APD has a significant negative effect on the profitability of consumer goods firms in Nigeria. This result implies that consumer goods firms should take advantage of trade discounts offered by their suppliers and ensure prompt payment of their short-term obligations, as this would increase their profitability. The result is consistent with the findings of Deloof (2003) and in contrast to the study of Al-Eitan *et al.* (2023) and Hoang *et al.* (2019).

The control variables used for this study have an insignificant effect on the performance of consumer goods firms in Nigeria. LEV and size have a positive effect on ROS, while CLTA has a negative effect on ROS.

The Adjusted R-Square indicates that the independent variables explain 98.6% variation in ROS. Also, the joint significance of all the variables is high, as evidenced by the F- statistics of 531.42 which is statistically significant at 1%. The Durbin-Watson result of 2 approximately shows the absence of autocorrelation in the model.

CONCLUSION AND RECOMMENDATION

From the discussion of findings above, this research concluded that the credit management variables, which are Average Collection Period (ACP) and account payable days (APD), have a significant effect on the performance of the consumer goods sector in Nigeria. The study recommends that firm managers ensure that they implement a sound credit policy that suits their business operation, which would enhance the quick recovery of credit sales. Also, firm managers should ensure that account payables are settled as at when due to protect their firm's integrity and creditworthiness. Managers of consumer goods-producing firms can also employ the service of factoring companies for the management of their receivables since it is advisable for them to adopt a liberal receivable management policy; if not properly managed, it could increase the likelihood of increased bad debt, which is harmful to their profitability.

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