http://journals.uonbi.ac.ke/index.php/adfj
ISSN 2522-3186

Effect of Trade Credit Management on the Financial Performance of Listed Consumer Goods Companies in Nigeria (2013 to 2022)

Rasheed Olatunji ANIMASAUN
Adenike Abibat OYEWUNMI
Kehinde Gabriel AJOSE
Omolara Modinat OMOTUNWASE

Date Received: November, 08, 2024
Date Published: December,30,2024

African Development Finance Journal
December Vol 8 No.2, 2024 PP 17-38
http://journals.uonbi.ac.ke/index.php/adfj
ISSN 2522-3186

Effect of Trade Credit Management on the Financial Performance of Listed Consumer Goods Companies in Nigeria (2013 to 2022)

By: Rasheed Olatunji ANIMASAUN [1], Adenike Abibat OYEWUNMI [2], Kehinde Gabriel AJOSE [3] and Omolara Modinat OMOTUNWASE [4]

Abstract
The purpose of this study was to investigate the effect of trade credit on the financial performance of consumer goods companies (CGCs) that are listed in Nigeria. Expose-facto was the study design used. Twenty-one CGCs that were listed were the study population, while ten of the listed consumer goods companies were specifically chosen for sampling. Using panel OLS as the data analysis method, it was found that trade credit significantly affects ROA ($p = 0.000001 < 0.05$) and ROE ($p = 0.000024 < 0.05$). According to the study's findings, trade credit significantly affects financial performance. Hence, it was recommended that there should also be an enhancement of credit collection processes and a regular assessment of customer creditworthiness. Additionally, companies should consider offering incentives for early payment and exploring alternative financing options to reduce reliance on credit.

Keywords: *Cash Conversion Cycle, Payables turnover, Performance, Receivables turnover, Return on assets, Return on Equity*

1. Introduction

A company's performance is its optimal use of people, material, and financial resources to fulfil its goals. Every organization wants to stay and grow. The performance includes financial and non-financial factors. For this study, performance is necessary for a thorough investigation and corrects representations of the research issue. Financial performance drives investors to invest in the market. Financial performance is crucial to a company's health and future. A company's financial performance depends on its capacity to use its assets to create more income than expenses. Strong financial performance by well-managed consumer goods corporations promotes financial system stability and economic prosperity. Strong financial performance metrics help these organizations build stakeholder trust, maximize shareholder wealth, stay competitive, and improve economic conditions (Olaoye, 2020). Nigeria's economic growth depends on firms' financial might. For economic stability, these enterprises' stability is crucial. Nigeria's GDP depends on consumer

[1]*Crescent University, Abeokuta, Ogun State, Nigeria, E-Mail: animasaun.ro@cuab.edu.ng*
[2]*Federal University of Agriculture Abeokuta, Ogun State, Nigeria, E-Mail: oyewunmiaa@funaab.edu.ng*
[3]*McPherson University, Seriki Sotayo, Ogun State, Nigeria, E-Mail: ajosekehinde20@gmail.com*
[4]*Federal Medical Center, Abeokuta, Ogun State, Nigeria, E-Mail: flow2lara@gmail.com*

product firms' financial success. Understanding these firms' financial performance factors is critical for economic stability. Trade credit management, including timely payments, can greatly affect a company's goals and success. Trade credit management affects companies' financial performance. Modern organizations' marketing and financial management strategies depend on trade credit since it influences financial success. Its role in corporate growth is confirmed. Trade credit sales and purchases occur when a company buys items or raw materials on credit. Credit purchases and sales generate payables and receivables, delivering instant funds. Buyers fund trade credit using accounts payable, while sellers invest in receivables. Buyers can buy supplies without prompt payment since merchants help customers. Trade credit is a popular short-term business funding alternative.

Trade credit (TR) is a vital resource for businesses globally throughout their life cycle. It helps the corporation compete and consume more, increasing sales and profit. Consumer goods companies rely on it for financing. TR helps financially strapped companies capitalize on profit-development opportunities or invest in productivity-boosting technology. Maintaining productivity, performance, and growth requires good receivables management. Unregulated accounts receivable can harm organizations' cash flow. Bad debts from receivables and mismanagement impair organizational productivity and profitability. Credit sales to consumers can affect firm liquidity and profitability without restrictions. (Pham, 2021).

Many studies have examined trade credit management and profitability, but no consensus has emerged. One study suggests a positive relationship between credit financing and profitability (Alhassan and Islam, 2021; Akinleye & Olarenwaju, 2019; Kumaraswamy & George, 2019; Mahdi & Al-Naimi, 2021), while another suggests a negative relationship (Fidelis & Umoffong, 2020; Onuora & Ifeacho, 2017) and a negative effect on ROE (Iyekoroghe, 2021). Thirdly, a non-significant impact is proposed (Chalil & Siregar, 2021; Olabisi et al., 2019). The trade credit management and economic performance of quoted consumer goods companies in Nigeria are yet to be the focus of discussion in most of the past literature. In numerous studies, ROA, EPS, and ROCE have been utilized to evaluate financial performance. The vacuum in the literature that resulted from inconsistent findings in academic publications is addressed by this study. The goal of this study is to increase understanding and harmonize these variables. This research study, in an

attempt to bridge the literature gaps, examined the nexus between the financial performance and management of trade credit of consumer goods listed in Nigerian Exchange Group (NGX), with a particular focus on trade credit management with respect to profitability.

1.1 Research Objectives

The main objective of this study is to examine the effect of trade credit management on the financial performance of listed CGCs in Nigeria from 2013 to 2022. The specific objectives are as follows:

(a) To assess impact of management of trade credit on return on assets (ROA) of quoted consumer goods companies in Nigeria.

(b) To examine the influence of credit management on the return on equity (ROE) of quoted consumer goods companies in Nigeria.

2. Literature Review

2.1 Theoretical Framework

The study reviewed transaction cost theory, and trade-off theory.

2.1.1 The Transaction Cost Theory

The Transaction Cost Theory was propounded by Ronald Coase in 1937 to explain the existence of firms. He theorized those transactions via market mechanisms incur cost, particularly the costs of searching for exchange partners and making and enforcing contracts. Later it was contributed by Oliver Williamson in the 1975 and 1980s, examines economic and organisational decision-making. Oliver Hart, (1979) made contributions to the theory of the firm. The theory has evolved over several decades, with foundational contributions in the mid-20th century and ongoing refinements. Trade credit, according to Transaction Cost Theory, can significantly lower transaction costs compare to traditional financing methods, thereby promoting internal economic organization and reducing administrative burdens.

However, the critics of the primitive period argued that Transaction Cost Theory (TCT) paid less attention to evolutionary considerations, other forms of social embeddedness, power relations, structuring economic organizations, trust, knightian uncertainty and market forces. These critques,

contemporarily, were repeated and re-addressed in many of the subsequent contributions while criticism of TCT remained a developing phenomenon (Foes & Klein, 2012; Granovetter, 1985; Langlois, 1992; Perrow, 1986; Richardson, 1972).

2.1.2 Trade -off theory

The trade-off theory was first proposed by Modigliani and Miller in 1958, highlighting the tax advantages of debt and the trade-offs involved in choosing a capital structure. Myron Gordon and Michael Jensen also contributed to this theory. According to the theory, businesses must weigh the advantages of debt (tax breaks, reduced cost of capital) against its disadvantages (financial turmoil, agency costs) (Adair & Adaskou, (2015). The theory suggests that firms should carefully evaluate how much credit to extend to customers in order to optimize the trade-off for their own benefit. The supporters (Myron Gordon, Eugene Fama and Michael Jensen) contributed to the development and validation of the theory through studies and theoretical frameworks. They contributed that firms balance the costs and benefit which deciding on their optimal capital structure which. The goal is to maximize a firm's value by optimizing the percentage contribution from debt and equity. Firms have a limited supply of capital, there is a cost associated with raising external capital and the financial decisions made by the firm influence its overall risk profile. But some academics have critics and challenged the trade-off theory. Myers (1984) proposed the pecking order idea, which favours internal financing above debt and equity from outside sources. Frank and Goyal (2003) concluded that this concept is more in line with enterprises' capital structure choices than the trade-off theory.

2.2 Conceptual Review

2.2.1 Financial Performance

Organisational performance is the efficient use of people, material, and financial resources to achieve organisational goals. Great performance indicates managerial efficacy and efficiency in using the company's personnel and material resources, which boosts the economy (Olowookere et al., 2021). Profit is a key financial performance indicator. Profit also means finishing a company's day. The short-term existence of any business depends on profit maximisation (Akporien & Nsima, 2020).

A company without profits will fail. This study measures financial success by return on total assets and equity. This profitability ratio assesses the company's total performance by assessing its effectiveness and viability. This study measures firm financial performance using ROA and ROE. ROA shows how well management manages assets to enhance revenue or save expenditures. ROA measurement is accurate if financial performance is linked to corporate governance. Because corporate governance shows company management. Net income returned as a percentage of shareholder equity is ROE.

2.2.2 Trade Credit Management

Most businesses use trade credit for short-term finance. Trade credit is a sort of short-term loan connected to product exchange timing and value. Trade credit can replace money if the loan is transferable. General acceptance turns trade credit into money. Delays in firm payments create trade credit. It provides the majority of short-term capital for businesses and is more flexible (Al-Eitan et al., 2023). Trade credit enables a business to purchase goods or services from another without making an advance payment. It is essential for start-ups and small businesses that are unable to obtain bank loans to purchase now and pay later (Henricks, 2020). Trade credit is like a brief loan with no interest. Even with incentives for speedier payment and late payment penalties, trade credit can cost the customer more than traditional loans. Deferred payments provide funding. For suppliers, trade credit management is an essential process in determining a buyer's trustworthiness. This basically means determining the capacity of the customer to repay debts if they use credit to buy goods (Mastering Credit Management, 2023).

The buyer's creditworthiness is evaluated by the company through an examination of a number of variables, including payment patterns, financial statements, and credit history. Based on this assessment, they determine whether to extend credit and establish an appropriate credit limit. Using efficient trade credit management allows businesses to reduce their risk of nonpayment while increasing cash flow. Companies measure trade credit in many ways. For this study, trade credit measurement will be investigated. Thus, trade credit management involves cash conversion, receivables, and payables.

2.2.3 Cash Conversion Cycle

Companies buy inventories, sell items on credit, and collect accounts receivable in the cash conversion cycle (CCC) (Danyadado & Jinjiri, 2022). CCC is also known as the net operational cycle, or cash-to-cash cycle time. It illustrates managerial effectiveness in turning corporate products into cash through sales. Manufacturers, especially consumer goods companies, rely on this cycle since their production process drives work in process, inventory, and finished goods. Sometimes companies buy goods on credit and sell products on credit, creating account payables and receivables (Mullier, 2021). Thus, cash is not invested until the corporation settles its debts and credits. The goal for a corporation to survive default is a low CCC, if possibly negative, as a result of improved cash flow management and a shorter cash conversion period.

The Cash Conversion Cycle (CCC) keeps track of capital investments or cash flows from cash to sales, inventory, accounts payable, and accounts receivable, and back again. A lower CCC typically indicates better business performance. It is important to evaluate other measures like ROE and ROA when comparing similar companies, but a lower CCC frequently indicates better management.

2.2.4 Receivable Turnover Ratio

Receivable refers to debts, unsettled transactions, or other monetary obligations owed to a corporation by debtors or customers. Giving customers credit generates accounts receivable. In accounts receivable (AR), customers owe an organisation for products or services given but not yet paid for (Hayes, 2021). Trade debtors, representing a company's asset claims, are expected to pay receivables. For many companies, accounts receivable make up a large amount of current assets. Accounting metrics like the receivable turnover ratio measure a company's credit and debt recovery efficiency. As an activity ratio, it measures a company's asset utilisation to improve performance. Receivable turnover ratio = net sales / average receivable.

A high ratio usually suggests liquid, fast-collected receivables. However, a low ratio indicates fewer liquid receivables and may diminish the business's liquidity from the analyst's perspective, even if the current and quick ratios are good.

2.2.5 Payable Turnover Ratio

One of the main sources of short-term, secured funding is accounts payable (AP). A corporation acquires products or services on credit, intending to pay suppliers later. If accounts payable are not paid on time, the supplier may require an interest payment or revoke or reduce credit. Firms take longer to pay suppliers when the value rises. Poor payables management can lead to a company disaster (Murphy, 2020). The accounts payable turnover ratio shows how well a business settles short-term obligations to suppliers. It displays the frequency with which an organisation pays its suppliers within an accounting period. The calculation is: cost of sales divided by accounts payable. The higher ratio is better because payables are paid faster.

2.3 Empirical Review

Agubata (2021) investigated the relationship between liquidity management and performance of Natural resources companies in Nigeria from 2013 to 2020. The regression analysis and descriptive statistics were used in the analysis. Finding revealed that trade payment period and trade receivable period had a negative relationship with ROA, whereas return on assets maintained a positively significant relationship with cash conversion cycle (CCC).

Fidelis and Umoffong (2020) studied the effects of credit management policies from 2016 to 2019 on economic performance of consumer goods firms listed in Nigerian Exchange Group. The ex-post facto study included content analysis of business financial statements. According to the study, there is a slight but discernible negative impact of the cash conversion cycle on financial performance. There exists a favourable and strong relationship between financial performance and the average collecting period.

Kumaraswamy and George (2021) investigated trade credit management and profitability Saudi manufacturing firm. They examined 41 Saudi Arabian Tadawul Stock Exchange-listed manufacturing enterprises from 2009 to 2017 in energy, materials, and capital goods indexes. Panel data is analysed using fixed effect regression with operational profit margin as the dependent variable, daily sales outstanding, and accounts receivable turnover as independent variables. Trade credit positively and significantly affected firm profitability, according to the study.

Mahdi and Al-Naimi (2021) Credit Impact on Firm Profitability in Iraqi, Jordanian, and Kuwaiti Stock Markets from 2009 to 2017. With the aid of SPSS software, the impact of trade credit on the profitability of an organisation was determined using regression analysis. The results showed a relationship between trade credit management and company performance. There is a strong and positive correlation between profitability and accounts receivable turnover.

Iyekoroghe (2021) studies effect of credit management on financial performance of listed manufacturing enterprises in Nigeria from between 2015 to 2019. This work employed the mix of time series and cross-section data to investigate the impact of management of trade credit on the financial performance of non-financial firms. It discovered a negative relationship with ROE but a significant relationship between credit sales and ROA.

Weerawickrama and Perera (2019) studied Sri Lankan Manufacturing Companies' Trade Credit Utilisation and Performance from 2009 to 2018. The primary goal of the study was to look into how listed manufacturing businesses profitability was affected by trade credit, a short-term financing option. Data were analysed using least square regression model. The study's findings showed that short-term indebtedness and trade credit accounts payable have a beneficial impact on profitability.

Alhassan and Islam (2021), investigated the effect of credit management on the liquidity and profitability of listed industrial goods firms in Nigeria. The study examined the impact of credit management on the liquidity and profitability of Nigerian listed industrial goods firms using a survey research design. The findings demonstrated that credit management has a statistically significant positive impact on profitability.

Al-Eitan, et al. (2023), investigated trade credit management and profitability of Jordanian manufacturing firms from 2009 to 2021. The aim of this study is to investigate how credit management affects the performance of manufacturing firms in Jordan. The finding showed that there was positive relationship between account payment and ROA and ROE. There was no discernible correlation between accounts receivable and ROE or ROA. Additionally, it demonstrated a favourable correlation between profitability and payables.

Danyadado and Jinjiri, (2022), studied the Cash conversion cycle and profitability of listed consumer goods companies in Nigeria between 2016 and 2021. Panel data regression was utilised. Finding out how the Cash Conversion Cycle affected Nigerian consumer product companies was the aim of the study. Second, the study's data showed that the average collecting period had a non-significantly negative effect whereas the inventory turnover period had a substantial negative effect. The cash conversion cycle and the financial performance of listed consumer products businesses in Nigeria were shown to be significantly correlated.

Akinleye and Olarewaju (2019) investigated credit management and profitability growth of manufacturing companies in Nigeria between 2007 and 2016. Panel data regression was used in the study, which found that cash conversion cycle and collection period positively correlated with manufacturing business growth, but payment period negatively correlated with it. Dangote Cement Plc, Guinness Nigeria Plc, and Nestle Plc profited from the growth credit management of manufacturing firms, while Cadbury Plc and Leventis Plc suffered.

3. Research Methodology

3.1 Research Design

The study employed an ex-post facto research design, which was justified by the fact that the data used in it was historical and thus pre-existing, having been gathered from pertinent publications.

3.2 Targeted Population, Sampling and Sample Size

The population of this research comprised all twenty-one (21) listed consumer products firms that were trading in Nigerian Exchange Group (NGX) floor as of November 24, 2023. Using the purposive sample approach, ten (10) out of the aforementioned population were chosen as the study's sample size. The selection was based on the following criteria: capital base, those listed on the Nigeria Exchange Group, and availability and consistency in the financial statements between 2013 and 2022 without a single year being missed out. The time frame that this investigation covers spans 10 years, beginning in (2013 - 2022).

Table 3.2 Sample of the Study

S/N	Sample size of listed consumer goods companies
1	Cadbury Nigeria Plc
2	Champion Brewery Plc
3	Flour Mills Nigeria Plc
4	Guinness Nigeria Plc
5	Honeywell Flour Mills Plc
6	International Brewery Plc
7	Nigeria Flour Mills
8	Nestle Nigeria Plc
9	Nigerian Breweries Plc
10	Unilever Nigeria Plc

3.3 Method of Data Analysis

Descriptive and Inferential statistics were employed to analyze the data. In descriptive statistics, mean, minimum, maximum, standard deviation, skewness, kurtosis values of the variables were observed. In inferential statistics, co-efficient of correlation and regression analysis were estimated.

3.4 Sources of data

The source of data for this study was the secondary from annual report and account of the Nigerian consumer goods companies that were sampled and listed.

3.5 Model Specification

The functional model is presented thus;

Y= f(x)----------Eq. (3.5.1)

Econometrically

$Y_{it=} \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} + \varepsilon_{it}$ ----------Eq. (3.5.2)

3.5.1. Effect of Trade Credit Management on ROA

$Y_{it} = f(RTR, PTR, CCC)$----------Eq. (3.5.1.1)

$ROA_{it} = \alpha_0 + \alpha_1 RTR_{it} + \alpha_2 PTR_{it} + \alpha_3 CCCit + \varepsilon_{it}$ ----------Eq. (3.5.1.2)

3.5.2. Effect of Trade Credit Management on ROE

$Y_{it2} = f(RTR, PTR, CCC)$----------Eq. (3.5.2.1)

$ROE_{it} = \alpha_0 + \alpha_1 RTR_{it} + \alpha_2 PTR_{it} + \alpha_3 CCCit + \varepsilon_{it}$ ---------- Eq. (3.5.2.2)

Where: ROA= Return on asset; ROE= Return on equity; CCC =Cash Conversion Cycle;
RTR = Receivable Turnover Ratio; PTR = Payment Turnover Ratio; β_0 = Constant term;
$\beta_{1\text{-}3}$= Coefficient; α_{it}=Intercept; α_{1it} = co-efficient of RTR; α_{2it} = co-efficient of RTR;
α_{3it} = co-efficient of CCC; ε_{it} = Error term

A Priori Expectations in the model are that the trade credit measures of RTR, PRT would positively impact financial performance, whilst CCC will negatively impact listed CGCs in Nigeria's financial performance. The mathematical expression is represented as β_1, $\beta_2 > 0$ and $\beta_3 < 0$.

4. Data Analysis and Discussion of Results

4.1 Descriptive Analysis

Table 4.1 showed the overview of the data used in this study. The mean, median, minimum, maximum, standard deviation, skewness, kurtosis and Jarque bera statistics was briefly analyzed in this study. The results showed that on average ROA and ROE are 5.06% and 11.99% within the period and RTR and PTR are 96 and 28 showed the number of times the company was able to turnover their receivables and payables respectively. The descriptive statistics also showed mean of 16.866days for CCC which indicate that it takes an average of 17 days to convert stock to cash in the sampled firms. The maximum and minimum value showed the largest and minimum value in the data set while the standard deviation showed the level at which the mean may deviate upward or downward.

Table 4.1: Descriptive Statistics of Observed variables

	ROA	ROE	RTR	PTR	CCC
Mean	0.050643	0.119950	96.13556	28.23915	16.86621
Median	0.034784	0.068122	8.222799	2.973588	50.83271
Maximum	0.968896	1.616491	3874.080	678.4763	765.8060
Minimum	-0.196595	-3.723444	0.585547	0.202042	-1064.239
Std. Dev.	0.124813	0.498768	416.1098	93.66075	249.5508
Skewness	4.061168	-3.960680	7.803793	5.423033	-1.588870
Kurtosis	30.64028	37.64717	69.69989	34.34567	10.67025
Jarque-Bera	3458.155	5263.225	19551.97	4584.117	287.2117
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	5.064324	11.99500	9613.556	2823.915	1686.621
Sum Sq. Dev.	1.542238	24.62817	17141593	868461.4	6165282.
Observations	100	100	100	100	100

4.2 Analysis of Correlation Matrix

Correlation shows the level of relationship between the parameters. A positive correlation was seen between ROA and ROE as well as RTR (r=0.028). However, a negative correlation was found with PTR (r=-0.011) and CCC (r=-0.036), albeit not statistically significant. When it comes to RTR (r=0.001), CCC (0.068), and ROE, the relationships are all favourable, but the one with PTR (r=-0.016) is negative and not significant. Additionally, there is a positive correlation between

RTR and both PTR (r=0.675) and CCC (r=0.092). However, there is no statistically significant link between RTR and either of the two variables. Additionally, PTR and CCC have a good partnership. A review of this result shows that there no existence of multicollinearity in the model.

Table 4.2 Correlation Analysis Results

Variables	ROA	ROE	RTR	PTR	CCC
ROA	1.000				
ROE	0.382	1.000			
RTR	0.022	0.0007	1.000		
PTR	-0.011	-0.016	0.675	1.000	
CCC	-0.036	0.068	0.092	0.108	1.000

4.3 Hausman Test

The result of the Hausman test for ROA model is as follows;

Table 4.3.1 Return on Asset

Chi-Sq Statistics	4.217
Prob	0.049

From the statistics test in the table above, $p > 0.05$.

Table 4.3.2 Return on Equity

Chi-Sq Statistics	0.133
Prob	0.028

http://journals.uonbi.ac.ke/index.php/adfj
ISSN 2522-3186

The likelihood of chi-square for the ROA and ROE models, respectively, is 0.0489 and 0.0276, so, since these values are less than the crucial value at the 0.05 significant levels, the fixed effect model is adopted.

Table 4.4.1 Regression Result of Effect of RTR, PTR, CCC on Return on Assets

Variables	Coefficient	T-Statistics	Probability
RTR	0.0002	0.5047	0.0151
PTR	-0.0001	-0.0536	0.0574
CCC	0.0003	0.1422	0.0873
C	0.0484	3.7866	0.0003
R-squared	0.432		
Adjusted R-squared	0.364		
Prob(F-statistic)	0.0000		
Durbin-Watson stat	2.0175		

Ho_1: Trade credit has no significant effect on Return on Assets (ROA).

The functional relationship between the dependent and independent variables is: ROA = 0.0484 + 0.0002RTR - 0.0001PTR + 0.0003CCC.

The regression model is that holding other factors constant, a unit increase in RTR will result in a 0.02% rise in ROA, a unit increase in PTR will exert 0.01% decrease in ROA. If there is an increase of a unit in CCC variable while other variables remain constant, then the ROA variable will increase by 0.03%. However, if the RTR, PTR, and CCC equal to zero, then, the ROA value is 0.05% approximately. The Table 4.4.1 revealed that RTR had a positive and significant effect while CCC showed a positive but insignificant effect on the ROA respectively. PTR had a negative but significant effect on ROA. The R^2 is 0.43, which indicates that roughly 43% of the variations in the ROA of the sampled firms can be jointly explained by RTR, PTR, and CCC. The fixed

http://journals.uonbi.ac.ke/index.php/adfj
ISSN 2522-3186

effect panel regression model's likelihood of the F-statistics and F-statistics value demonstrated that it was statistically significant, valid, reliable, appropriate, and suitable for this study.

Decision: The overall regression result using F-statistic with p> 0.05 indicated that alternate hypothesis should be accepted. Therefore, trade credit significantly affected the financial performance of listed consumer goods companies in Nigeria.

Table 4.4.2 Regression Results on Effect of RTR, PTR, CCC on Return on Equity

Variables	Coefficient	T-Statistics	Probability
RTR	0.0004	0.2525	0.0013
PTR	-0.0003	-0.0454	0.0639
CCC	0.0001	0.5790	0.0641
C	0.1155	2.5880	0.0113
R-squared	0.373		
Adjusted R-squared	0.286		
Prob(F-statistic)	0.0000		
Durbin-Watson stat	2.0681		

Ho_2: Trade credit has no significant effect on Return on Equity (ROE)

The functional relationship between the dependent and independent variables is: ROE = 0.0004RTR - 0.0003PTR + 0.0001CCC + 0.1155.

According to the regression model, an increase of one unit in RTR will approximate a 0.04% rise in ROE, whereas an increase of one unit in PTR will result in a 0.03% drop in ROE, all other things being equal. If there is an increase of a unit in CCC variable while other variables remain constant,

then the ROE variable will increase by 0.01%. However, if the RTR, PTR, and CCC equal zero, then, the ROE variable value is 0.12% approximately. Table 4.4.2 revealed that RTR had a positive and significant effect while CCC showed a positive but insignificant effect on the ROE. PTR has a negative and insignificant effect on ROE. The R^2 is 0.37. This means that approximately 37% of the variations in the sampled firms' ROE can be explained jointly by RTR, PTR and CCC.

Decision: The overall regression result using F-statistic with p> 0.05 indicated that alternate hypothesis should be accepted. Therefore, trade credit significantly affected the financial performance of listed consumer goods companies in Nigeria.

5 Discussion of Findings

The result from regression model (Eq. 3.5.1.2) to achieve specific objective one in this work revealed that Trade credit management significantly affected on ROA (0.00001). In model 1 as contained in Table 4.4.1 Receivable Turnover Ratio had a positively significant impact on return on assets. That is, the higher the receivable turnover ratio, the company's financial performance will also increase, but conversely if receivable turnover ratio decreases, the company's financial performance will also experience a decline. This suggest that the receivable turnover and cash conversion cycle of listed consumer goods companies in Nigeria from 2013 to 2022 were good, while payment turnover ratio has negative significant effect on ROA. That is the increase in payment turnover ratio, the company return on asset will decline. The result is consistent with previous research conducted by Mahdi and Al-Naimi, (2021); Akinleye and Olarewaju (2019); Fidelis and Umoffong (2020); Al-Eitan, et al., (2023).

The result from panel regression model (Eq. 3.5.2.2) to attain specific objective two in the research work revealed that trade credit management itself has significant influence on ROE of listed consumer goods companies in Nigeria. This is evident from the outcomes of the multiple regression in Table 4.4.2. The finding is examined from the F-statistics at 5%. The implication of

these results is that trade credit management as a whole has significant influence on return on equity of listed consumer goods companies in Nigeria with 2013 to 2022.

The ROE is positively and significantly influenced by the receivable turnover ratio (RTR) in model 2, as shown in Table 4.4.2. It appears from this that the greater the receivable turnover ratio, the ROE will also increase.

The payable return ratio has a negative and insignificant influence on ROE while CCC has a positive but insignificant effect on ROE. The combined effect of RTR, PTR, and CCC has a favourable impact on the ROE of listed traded consumer products firms in Nigeria. The findings of the literature support the research conducted by Mahdi and Al-Naimi (2021) and Iyekoroghe (2021).

6. Conclusion and Recommendations

The study concludes that trade credit management has positive significant effect on ROA and ROE. Though the payables turnover ratio (from both the ROA and ROE models) indicates a negative impact on financial performance. The study advises Nigerian consumer goods companies to closely monitor their credit management procedures. This includes implementing effective credit policies, monitoring customer payment behavior, and establishing clear terms and conditions for credit transactions among suppliers. By doing so, companies can minimize the risk of bad debt and improve their cash flow position. There should also be an enhancement of credit collection processes and regular assessment of customer creditworthiness. Additionally, companies should consider offering incentives for early payment and exploring alternative financing options to reduce reliance on credit. This will enable companies to maintain a healthy balance between providing credit to customers and protecting their own financial stability.

7. Contributions to the Knowledge

This study significantly contributes to the body of existing literature on management of trade credit and financial performance of consumer products companies listed in Nigerian Exchange Groups for the investors and stakeholders. It also plays an important role as a guideline for policy managers, regulators, users, academicians, policy makers, investors, analyst and regulatory bodies.

References

Adair, P. & Adaskou, M. (2015). Trade-off-theory vs. pecking order theory and the determinants of corporate leverage: Evidence from a panel data analysis upon French SMEs 2002–2010. *Cogent Economics & Finance, 3(1),1-12.* DOI:10.1080/23322039.2015.1006477

Akinleye, G. T., & Olanrewaju, O. O. (2019). Credit management and profitavility growth in Nigeria manufacturing firms. *Acta Universitatis Danubius. 15*(2), 445-456. Retrieved April 2021

Akporien , F., & Nsima , U. J. (2020). Effect of Credit Management Policy on Financial Performance of listed consumer goods in Nigeria. *Research Journal of Finance and Accounting, 11*(10), 156-163. doi:10.7176/rjfa/11-10-17

Al-Eitan, G. N., Khanji, I. M., & Saraireh, S. A. (2023). Trade Credit Management and Profitability of Jordanian Manufacturing Firms. *11*(16), 1-11. Journal of Mdpi doi:doi.org/10.3390/risks11010016

Alhassan, I., & Islam, K. A. (2021). Credit management strategies and financial performance of industrial goods sector in Nigeria. *Indian Journal of Finance and Banking, 8*(1), 59-74. doi:10.46281/ijfb.v8i1.1495

Chalil,, M., & Siregar, S. V. (2021). The effect of trade credit on company profitability. *International Journal of Islamic and Social Sciences*, 72-82.

Coase, R. H. (1937). The Nature of the Firm. *Economica, 4(16)*, 386-405.

Danyadado, A. M., & Jinjiri, K. (2022). Cash conversion cycle and profitability of listed consumer goods companies in Nigeria. *International Journal of Intellectual Discourse (IJID), 5*(1), 89-103. Retrieved August 12, 2023

Danyadado, A. M., & Jinjiri, K. (2022). Cash conversion cycle and profitability of listed consumer goods companies in Nigeria. *International Journal of Intellectual Discourse (, 5*(1), 89-103.

Fama, E. F., & French, K. R. (2002). Testing Trade-Off and Pecking Order Predictions About Dividends and Debt. *The Review of Financial Studies, 15*(1), 1–33. https://doi.org/10.1093/rfs/15.1.1

Foss, N. J., & Klein, P. G. (2012). Transaction cost economics and the theory of the firm. In R. Gibbons & J. Roberts (Eds.), *The handbook of organizational economics* 57-79.

Foss, N. J., & Klein, P. G. (2012). Bygones in the theory of the firm. J*ournal of Management Studies, 49(5),* 871-894.

Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics, 67(2),* 217-248.

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology, 91(3),* 481-510.

Hart, O. (1979). On Shareholders Unanimity in Large Stock Market Economies. *Econometrica, 47(5),* 1057-1083.

Hayes, D. C. (2021). Transaction cost economics and auditing research. Auditing: *A Journal of Practice & Theory*, *40(2),* 151-173.

Henricks, M. (2020). Transaction cost economics: A review and future directions. Journal of Economic Issues, 54(2), 457-466.

Hoang, H., Xiao, Q., & Akbar, S. (2019). Trade credit, firm profitability, and financial constraints: Evidence from listed SMEs in. *International Journal of Managerial Finance*, 1-29. doi:10.1108/IJMF-09-2018-0258

Iyekoroghe, G. A. (2021). Impact of Credit Management of the Financial Performance of. *Bingham University Journal of Accounting and Business,* 190-202.

Langlois, R. N. (1984). Internal organization in a dynamic context: Some theoretical considerations. I*n M. Jussawalla & H. Ebenfield (Eds.), Communication and information economics.* 23-49.

Langlois, R. N. (1992). Transaction-cost economics in real time. Industrial and Corporate Change, 1(1), 99-127.

Kumaraswamy, S., & George , S. (2019). Trade credit management and firm profitability of Saudi manufacturing firms. *Polish of Journal management studies, 20*(1), 243-253. doi:10.17512/pjms.2019.20.1.22

Mohammed, I. M., & Balla, W. (2022). Impact of credit facilities on performance of SMEs in Jalingo Metropolis. *TSU-International Journals of Accounting and Finance, 1*(3), 115-133. Retrieved September 23, 2023

Muhdi, D. S. (2021). Credit Impact on Firm Profitability in Iraqi, Jordanian, and Kuwaiti Stock. *Journal of Asian Finance, Economics and Business Vol 8 No 3 (2021) 0469–0477, 8*(3), 469-477. doi:10.13106/jafeb.2021

Mullier, K. (2021). Transaction cost economics and the boundaries of the firm. *Journal of Management Studies, 58(3),* 831-854.

Murphy, J. (2020). Transaction cost economics and international business. *Journal of International Business Studies, 51(5),* 761-774.

Myers, S. C. (1984). Capital structure puzzle: National Bureau of economic research Cambridge, Mass., USA.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics,* 13(2), 157-186.

Nigeria: Distribution of gross domestic product (GDP) across economic sectors from 2012 to 2022. (2023, October 20). (A. O'Neil, Producer) Retrieved November 13, 2023, from Statista: https://www.statista.com/statistics/382311/nigeria-gdp-distribution-across-economic-sectors/

Okegbe, T. O., & Okonkwozondu, N. C. (2023). Credit financing and cash flow performance of quoted manufacturing companies in Nigeria. *African Journal of Business and Economic Development, 3*(1), 75-93. Retrieved August 2023, from www.ijaar.org/ajbed

Olabisi, J., Oladejo, D. A., Adegoke, J. F., & Abioro, M. A. (2019). Credit management policy and firms' profitability: evidence from infant manufacturing firms in Southwest, Nigeria. *The journal contemporary economy revista economia comtemporana*, *4*(4), 59-69.

Olaoye, A. A. (2020). Impact of Liquidity Management on Profitability of Selected Manufacturing Firms in Nigeria. *Journal of Economics & Management Research, 1(3)* 1-5.doi.org/10.47363/JESMR/2020(1)112

Olowookere, J. K., Ibrahim, J., & Olaniyan, H. I. (2021). Financial Management Practice and Performance of Listed Consumer goods Companies in Nigeria. *nternational Journal of Innovative Research in Accounting and Sustainability, 6*(1), 64-83. Retrieved July 23, 2023, from https://ijiras.org

Peter, F. O., Peter, A. O., Bamidele, R., Adeniyi, M. M., Adama, I., Decster, L. H., . . . Adioti, B. S. (2022). Trade credit management and SMEs sustainability: a study of selected SMEs in

Lagos, Nigeria. *Int J Syst Assur Eng Manag, 13*(4), 1834-1844. doi:https://doi.org/10.1007/s13198-021-01569-y

Pham, D. P., & Huynh, T. C. (2020). The impact of trade credit investment on manufacturing firms' profitability: evidence from Vietnam. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 68*(4), 775–796. doi:doi.org/10.11118/actaun202068040775

Pham, T. H. (2021). Trade crdit and performance of food production companies in Vietnam. *International Journal of Management and Substainability, 10*(2), 52-68. doi:10.18488/journal.11.2021.102.52.68 Trade-off-theory vs. pecking order theory and the

Richardson, G. B. (1972). The Economics of Information and the Firm. Quartely Journal of Economics, 86(2), 161-174

Williamson, O. E. (1975). Markets and Hierarchies: Analysis and Antitrust Implications. *Free Press.*

Williamson, O. E. (1981). The Economics of Organization: The Transaction Cost Approach. *American Journal of Sociology, 87(3),* 548-577.

Warue, B. N., Charles, B. M., & Mwania, P. M. (2018). Theories in Finance Discipline: A Critique of Literature Review. *The University Journal, 1*(8), 113-145.

Weerawickrama , V. L., & Perera, P. (2019). Trade Credit Utilization and Performance of Listed Manufacturing Companies: Evidence from Sri Lanka. *International Journal of Scientific and Research Publications 2019, 9*(10), 813-818. doi:10.29322/IJSRP.9.10.2019.p94102.