



EFFECT OF BAD DEBT ON THE PROFITABILITY OF A MANUFACTURING COMPANY IN NIGERIA

ARIBABA, Foluso Olugbenga (PhD, FCA)

Department of Business Administration,
Faculty of Management Sciences,
Federal University Oye-Ekiti, Ekiti State, Nigeria.
E-mail: folusoaribaba2003@yahoo.com

AHMODU, Abdul-Lateef Olamide

Department of Management Sciences,
Wesley University Ondo, Nigeria. P.M.B 507, Ondo Nigeria.
ahmoduolamidelatetef10@gmail.com or lateef.ahmodu@wesleyuni.edu.ng

EBHOAYE, Ogiedo Solomon

Department of Business Administration,
Faculty of Management Sciences,
Federal University, Oye-Ekiti, Ekiti State, Nigeria
solomonacademics@gmail.com ogiedo.ebhoaye@fuoye.edu.ng
+234 8033573214

ABSTRACT

The study explores the effect of bad debt on the profitability of a manufacturing company in Nigeria. The study employed an ex-post-facto research design. Data were obtained from the annual financial statement of the company. Hypotheses formulated were tested using correlational analysis to test the significant effect between the variables. The findings revealed a significant positive effect between the debt ratio and the company's profitability. In contrast, bad debt and credit sales have a negative significant on the profitability of the company. The study concludes that the compliance of the manufacturing company to bad debt management, such as timely response to cash conversion cycle and average collection period, enhances the profitability of the manufacturing firms by increasing the return on assets and equity. Therefore, the enquiry unit should be established to take responsibility for prospective creditors' assessments. For control purposes, relevant financial ratios should be computed at the end of each financial year for comparison purposes.

Keywords: Bad Debt, Credit Sales, Debt Ratio and Profitability

INTRODUCTION

One of contemporary society's pillars is finance, which drives economic expansion. Countries remain in poverty if there is no money or debt. People can consume without their current income if they can borrow and save. When sales would otherwise prevent it, businesses can invest in debt. Additionally, fiscal authorities can contribute to the stabilisation of the macroeconomy when they have the ability to borrow. However, borrowing can lead to vulnerabilities, as history has shown. According to Reinhart and Rogoff (2009), financial crises are more likely and more



severe when debt ratios exceed a certain threshold. This strongly implies that debt can accumulate to an excessive level. Refusing to lend money is one of the best ways to avoid bad debts completely. Prudent lending can help manufacturing companies manage their credit effectively so they can continue operating. Manufacturing companies' annual reports show a consistent increase in the provision for bad and uncertain debts, which sends the wrong message to the economy's investors. Investors have lost faith in the company's ability due to instances of failed manufacturing businesses in the economy over the years.

Most businesses rely on credit sales as assets after granting credit, thus, without making adequate provisions for potential bad and shaky debts. Because the amount of trade debtors cannot be fully realised in this situation, it is obvious that such companies' financial statements will not be true and fair. Similarly, when granting credit sales, liquidity issues are considered. This occurs as a result of excessive investments in receivables, particularly when the debtors are high-risk. A company with a liquidity issue implies that borrowing money from other sources may be expensive and that extending credit beyond what is prudent is risky. On the other hand, a high or strict credit policy, or not granting credit at all, results in decreased sales level and profitability. Research has shown that, when properly managed, credit sales improve a firm's profitability and liquidity position (Atuche, 2009). Therefore, debt is a double-edged sword that increases welfare when used sensibly and sparingly. However, the outcome could be disastrous if used carelessly and excessively. Overborrowing results in manufacturing bankruptcy and financial ruin for both businesses and individual households. Too much debt for a nation makes it difficult for the government to provide citizens with basic services. The portion of receivables that can no longer be collected, typically from accounts receivable or loans, is referred to as "bad debt" in financial accounting and finance. Bad debt is considered an expense in accounting (Zhou, Zhang, Zhu, Cheng, Yang, Gao, & Kong, 2021). The debt is said to be bad when there is no chance of getting the money back from the debtor. A debt should be transferred from the debtor's account to the debit of an account called the "Bad Debts Account" as soon as it is determined to be bad (Inanga, 2001).

A valid and enforceable obligation to pay a specific amount of money gives rise to a debtor-creditor relationship. It must also be assumed that the debt in question is worthless. This distinction is further divided into collectable levels. The qualifying debt must be evaluated to see if it is entirely or partially worthless. A debt that is only partially worthless may still be collectable at some point in the future. The debtor's financial situation, health, credit standing, and other factors are all considered (Zhou et al., 2021). It is understandable to be concerned about the high and rising levels of debt, which raises the question of the true effects of this rapid increase in debt levels. When does its negative impact start to show? A bad debt is a known account receivable that should be immediately written off because it is unlikely to be paid. In contrast, a doubtful debt can become a bad debt in the future, and it may be necessary to set aside money for shaky accounts (Taku & Giles, 2017). An accurate bad debt accounting entry for debtors can offer a useful benchmark for resolving debt-related issues (Taku & Giles, 2017). Bad debt cannot be collected, making it useless to the creditor. This happens after every effort has been made to collect the debt. Bad debt is typically the result of the debtor declaring manufacturing bankruptcy or when the cost of further collection efforts exceeds the amount that could be recovered. When this occurs, the business typically records the debts as an expense.



Gaining more profit is one of manufacturing firms' main goals. It is necessary to pay corporation tax, pay interest to depositors, pay staff wages, distribute dividends to shareholders, and cover other costs. Therefore, manufacturing firms can only effectively play their part if they make profits. For a manufacturing firm to continue operating and to provide its investors with fair returns, profitability is necessary. However, it is also crucial for managers to ensure more durable solvency ratios, even in the context of a riskier business environment (Ogunbiyi, & Ihejirika, 2014). Since it strengthens a manufacturing firm's capital position and enhances future profitability by investing retained earnings, profitability is its first defence against unforeseen losses. A company that consistently loses money will eventually run out of capital, putting both equity and debt holders at risk. Furthermore, the manufacturing firm's return on equity (ROE) must be higher than its cost of equity to create shareholder value because the primary goal of any profit-seeking organisation is to protect and increase wealth for its owners. Therefore, profitability is the motive behind every business and the primary gauge of its performance. Manufacturing is also a unique type of business because they mobilise funds. In addition to serving as a performance indicator, manufacturing profitability is a prerequisite for competitive manufacturing success and effective monetary policy implementation. Manufacturing profitability is a key indicator of financial crises and the strength and stability of manufacturing firms. Two factors can affect a manufacturer's profitability: internal and external debts (Mbabazize, Turyareeba, Ainomugisha & Rumanzi, 2020). The study motivated the interest of the researchers to examine how bad debts affect the profitability of manufacturing companies in Nigeria using Unilever Plc as a case study.

OBJECTIVES

The main aim of this study was to examine the effect of bad debt on the Profitability of Unilever manufacturing company in Nigeria. The specific objectives are to:

1. Determine the effect of bad debts on the profitability of a manufacturing company.
2. Evaluate the debt ratio's effect on a manufacturing company's profitability.
3. Predict the extent to which credit sales affect the manufacturing company's profitability.

RESEARCH HYPOTHESES

1. There is no significant effect between bad debts and the profitability of a manufacturing company.
2. There is no significant effect between debt ratios and the profitability of a manufacturing company.
3. There is no significant effect between credit sales and the manufacturing company's profitability.



EMPIRICAL REVIEW

Kamar and Ayuma (2016) examine how debt collection methods affect financial institutions' performance. One of the study's main goals was to examine the impact of account transactions, guarantors, auctions, and collateral retention on the performance of manufacturing companies. The theory of customer-supplier relationships served as the study's guide. A descriptive survey design was used for the research. 185 employees from the credit and management divisions of particular manufacturing companies made up the target population. Purposive sampling was used in the study to choose 125 respondents. The researcher used questionnaires to gather data. Descriptive statistics and inferential statistics were used to analyse the study's data. This includes analysing frequency, mean, and standard deviation data using descriptive statistical methods. Several linear regression models were used to examine the relationship between the variables. Graphs, tables, and pie charts were used to present the findings. According to the study's findings, financial institutions should, among other things, review account histories as suggestion tools for accounts like savings, investment, and retirement accounts to gather more data on a customer's capacity to pay off debts. To allow for generalisations and to offer significant advances for future studies, the study recommends that the same study be conducted in other manufacturing companies not included.

Jose, Lancaster, and Stevens (1996) used the Cash Conversion Cycle (CCC) as a measure of receivables management, where a shorter CCC represents the aggressiveness of receivables management, to examine the relationship between aggressive receivables management and the performance of manufacturing companies. According to the findings, a significant inverse relationship exists between profitability and the cash conversion cycle, indicating that more aggressive receivables management is linked to higher profitability. Businesses in a less competitive sector would concentrate on reducing receivables to boost cash flow. The goal for businesses in industries with numerous material suppliers would be to maximise payable. Strong evidence that aggressive receivables management policies, as indicated by shorter cash conversion cycles, increase profitability is provided by one of the earlier studies conducted for the twenty years from 1974 through 1993 of 2,718 firms. For a sample of 131 listed companies, Lazaridis and Tryfonidis (2006) also looked into the relationship between accounts receivables management and corporate profitability. For the study, the researcher used company financial statements from 2001 to 2004. The analysis of regression results revealed a statistically significant relationship between the cash conversion cycle and gross operating profit, a profitability metric. He suggested that the managers could increase shareholder value by optimising the cash conversion cycle. According to the findings of empirical analysis, there is statistical support for a significant correlation between a company's profitability and the effectiveness of its receivables management.

Afza and Nazir (2009) studied a sample of 204 non-financial firms on the Karachi Stock Exchange (KSE) from 1998 to 2005 to determine the traditional relationship between receivables management practices and a firm's profitability. The study discovered significant variations in financing and receivables requirements across various industries. Additionally, regression analysis revealed a negative correlation between a company's profitability and the degree of aggressiveness of its financing and investment policies for receivables. Finally, a study on the



connection between receivables management and the value of companies quoted on the NSE was conducted by Waweru (2011). Secondary data from annual reports and audited financial statements of companies listed on the NSE were used in the study. The study covered a sample of 22 companies listed on the NSE for seven years, from 2003 to 2009. The value of the company was determined using the 27 average stock prices. The results of the Pearson correlation showed a negative relationship between the average cash collection period, inventory turnover in days, cash conversion cycle and the firm's value. In contrast, the regression models suggested some relationship between receivables management and the firm's value.

Agu, Basil, and colleagues (2022) look at what leads to bad and shaky debt in manufacturing firms. It provides a framework to evaluate the checks and balances to prevent or lessen risk. The study collects data using both primary and secondary sources to identify the factors that lead to bad debts. In order to validate the outcome covering the years 1993 through 2011, an analysis of variance (ANOVA) and an autoregressive model was used. One of the most dangerous strategies for manufacturing companies is credit sales. However, a manufacturing company must sell on credit if it wants to stay in operation.

The true effects of debt, by Cecchetti, Mohanty, and Zampolli, (2011). Show how debt boosts growth and welfare at reasonable levels. However, excessive amounts can be harmful. Answer the query: At what point does debt become problematic? Using new data on governmental, non-financial corporate and household debt in 18 OECD nations from 1980 to 2010. The findings confirm that debt drags growth after a certain point. The benchmark for governmental debt is roughly 85% of GDP. The immediate implication is that nations with high debt levels must take swift action to resolve their financial issues. The longer-term lesson is that governments should maintain debt to build the fiscal buffer needed to address extraordinary events.

Mazen (2014) seeks to offer new empirical proof of how debt affects corporate profitability. Three key theories, the signalling theory, the tax theory, and the agency cost theory, can all be used to account for this effect. Using a panel data sample of 2240 service sector non-listed French companies from 1999 to 2006. We demonstrate that, regardless of the size of the company, the debt ratio has no impact on corporate profitability by applying the generalised method of moments (GMM) econometric technique to three measures of profitability ratio (PROF1, PROF2, and ROA) (VSEs, SMEs and LEs). Ayodele (2015) conducted an empirical analysis to look at bad debts and investment growth among manufacturing companies. In the study, an effort was made to pinpoint the root causes of bad and shaky debts, their effects on the investments and profits of manufacturing companies, and how they can be mitigated through the use of the right securities and management teams. The study used secondary data gathered from Cadbury Nigeria plc's ten-year annual reports. The impact of bad debts on the manufacturing companies' investment growth was examined using regression analysis. Furthermore, it was found that the growth of manufacturing company investment has an inverse relationship with bad and questionable debts.

Kabuoh, Tonade, Abiola, and Okororie (2014) looked into the difficulties of managing debt. Questionnaires were given out to collect information from the respondents and evaluate the



consistency and dependability of the research instrument. Regression analysis was performed on the data using the statistical package for social sciences (SPSS). According to this study, there is a significant link between borrowers' insufficient provisions and bad debt. The correlation is significant at a 5% level of significance, according to the correlation table. A multiple regression analysis was conducted to learn more about the correlation between the dependent and independent variables. The outcome shows that $R^2 = 0.740$ (74.0%) for bad debt and insufficient collateral provisions by debtors. For fund diversion by debtors, $R^2 = .778$ (78%). Bad debt was found to be primarily caused by poor credit evaluation. Based on the study's findings, it was suggested, among other things, that management of manufacturing companies set up regular training programmes for credit staff in subjects like credit management, risk management, and financial analysis in order to raise the calibre of credit appraisals, help credit officers understand the importance of adhering to credit policy, and improve credit monitoring.

The study of Sigidov, Korovina, Trubilin, Govdya, and Vasilieva (2016) aims to develop techniques for making provisions for doubtful debts. Two methods of provisioning for doubtful debts, individually and collectively, were suggested. The first approach, which is used in international standards, is the percentage of sales approach. Its use necessitates computing the average ratio of the outstanding receivables to revenue volume over three to five years to determine the average percentage of the doubtful debt. Organisations with many debtors and small amounts owed are advised to use this method. The authors' second approach considers the likelihood of non-repayment, the solvency of the debtor, and the timing of debt incurrence. Applying for debtors with significant debt is recommended. The provision for doubtful debts was calculated using the author's method using data from the current company "Elephant" LLC for 2015, revealing the difference between the provision's amount and the actual data. Using the suggested methods will make it easier for accountants to find a way to make a provision for doubtful debts while also increasing the accuracy of the accounting (financial) statements' reflection of receivables.

METHODOLOGY

The study employed ex-post-facto methods of research design. The data for this study was gathered through the annual financial statement of Unilever Plc. The data was sourced through the annual financial statement of the company. The study covers twenty (20) years between the periods of (2001 - 2020). The study adopted regression and correlational analysis of statistical tools using SPSS type of statistical software. Linear regression models were used to test the null hypotheses proposed for this study. The model used by Aribaba and Ahmodu (2022) was adopted, and the model stated thus: $PROF = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \Sigma_{it} \dots \dots \dots$ (Eqn. 1)

The study specified from the above model in the following econometric form:

$$ROA = \beta_0 + \beta_1 + BD, \beta_2 + DR, \beta_3 + CS + \Sigma_{it} \dots \dots \dots (Eqn. 2)$$

$$ROE = \beta_0 + \beta_1 + BD, \beta_2 + DR, \beta_3 + CS + \Sigma_{it} \dots \dots \dots (Eqn. 3)$$

Where:

ROA = Return on Assets (as a proxy for profitability)

ROE = Return on Equity (as a proxy for profitability)



BD	=	Bad Debt
DR	=	Debt Ratio
CS	=	Credit Sales
β_0	=	Intercept
$\beta_1 - 4$	=	Coefficients
Σ_{it}	=	Stochastic error term

RESULTS AND DISCUSSION OF FINDINGS

Table 1: Descriptive Statistics of the Variables

	ROA	ROE	BD	DR	CS
Mean	516126.0	3715630.	1.250000	2.850000	3.600000
Median	508569.5	3417482.	1.000000	3.000000	4.000000
Maximum	941886.0	7146610.	3.000000	5.000000	6.000000
Minimum	220775.0	1794348.	1.000000	1.000000	1.000000
Std. Dev.	212006.0	1630822.	0.550120	1.225819	1.698296
Skewness	0.216627	0.554015	2.067728	-0.237020	-0.407452
Kurtosis	2.163942	2.271463	6.285444	1.969927	1.876392
Jarque-Bera	0.738919	1.465415	23.24678	1.071471	1.605469
Probability	0.691108	0.480606	0.000009	0.585239	0.448102
Sum	10322519	74312603	25.00000	57.00000	72.00000
Sum Sq. Dev.	8.54E+11	5.05E+13	5.750000	28.55000	54.80000
Observations	20	20	20	20	20

Source: Author's Computation Using E-view 10.0 Version

The descriptive statistics table explains the variables mean and standard deviation of the bad debts of a manufacturing company using Unilever Plc as a case study with the value of 1.250 and 0.550, respectively; this showed that the standard deviation is concentrated around the mean because the standard deviation is lower than the mean. The mean and standard deviation of the debt ratio is represented with the value of 2.850 and 1.225, which means that the standard deviation is absorbed around the mean because the standard deviation is lower than the mean data. The credit sales mean and standard deviation portrays a mean value of 3.600 and a standard deviation of 1.698. The implication is that the standard deviation has clustered around the mean data. The assumption is that the data set is closely interrelated to the average, which explains how strenuous the data is around the mean. However, the variables are positively skewed except for the value of debt ratio and credit sales which describes the data symmetry. The value of Jarque-Bera explained that the variables are normally distributed. The positive kurtosis represents a data set with a high peak near the mean.



Test of Hypotheses

Table 2: Correlation Matrix of Dependent and Independent Variables

	ROA	ROE	BD	DR	CS
ROA	1	0.853260	-0.613733	0.768848	-0.533461
ROE	0.853260	1	-0.540453	0.856357	-0.282835
BD	-0.613733	-0.540453	1	-0.721946	0.056334
DR	0.768848	0.856357	-0.721946	1	-0.055619
CS	-0.533461	-0.282835	0.056334	-0.055619	1

Source: *Author's Computation Using E-view 10.0 Version*

The correlation matrix of the variables shows the relationship between all pairs of variables in the regression model, the correlation with the dependent variables (Return on Asset and Return on Equity) and independent variables (BD, DR and CS) at a 5% level of significance. This gives an insight into the magnitude of the pairs of independent variables. The value of the correlation coefficient ranges from -1 to 1. As shown in the table above, the effect between the bad debt and credit sales on ROA and ROE is weak and negative with the coefficient value of -0.613733, -0.540453 and -0.533461; -0.282835. Also, the debt ratio was weak but positively correlated with the ROA and ROE with the coefficient values of 0.768848 and 0.856357. The findings supported the conclusion of Kamar and Ayuma (2016) conclusion that financial institutions should, among other things, review account histories as suggestion tools for accounts like savings, investment, and retirement accounts to gather more data on a customer's capacity to pay off debts. Also, the study of Kabuoh, Tonade, Abiola, and Okororie (2014) suggested that management of manufacturing companies set up regular training programmes for credit staff in subjects like credit management, risk management, and financial analysis to raise the calibre of credit appraisals, help credit officers understand the importance of adhering to credit policy, and improve credit monitoring or sales. Furthermore, Mazen (2014) demonstrated that, regardless of the size of the company, the debt ratio has no impact on corporate profitability by applying the generalised method of moments (GMM) econometric technique to three measures of profitability ratio (PROF1, PROF2, and ROA) (VSEs, SMEs or LEs) was also against the findings.

CONCLUSION AND RECOMMENDATIONS

An examination of the effect of bad debt on the manufacturing company's profitability revealed that debt ratios were positively related to return on assets and equity, which measured the manufacturing company's profitability in Nigeria. Thus, the compliance of the manufacturing company to bad debt management, such as timely response to the cash conversion cycle and average collection period, enhances the manufacturing firm's profitability by increasing the return on assets and equity. This implies that companies should grant credit to trustworthy customers with an appropriate credit control mechanism to maximise their profitability. It was also discovered that credit sales increase turnover and profitability in the firms' effective implementation of optimum credit policy.

The study, therefore, recommended that manufacturing companies intensify efforts to engage the services of factoring agents. This will reduce bad debt losses and other associated credit costs. They should also increase the rate of credit sales to trustworthy customers only despite the fact



that a credit sale is a marketing tool to maintain sales. There should be close monitoring, review and adjust credit policy from time to time, considering the nature of their business and mission. An enquiry unit should be established to take responsibility for prospective creditors' assessments. For control purposes, relevant financial ratios should be computed at the end of each financial year for comparison purposes. There should be a regular review of credit policies to suit the changes in the business environment.

REFERENCE

- Afza, T., & Nazir, M. S. (2009). Impact of Aggressive Working Capital Management Policy on Firms' Profitability. *The IUP Journal of Applied Finance*, 15(8), 19-30.
- Agu, W. (2022). Credit and Collection Policies: *Amazing publishing Ltd, Enugu*.
- Aribaba, F. O., & Ahmodu, A. O. (2022) Corporate Governance Failure and Organisational Ethic of Deposit Money Banks in Nigeria. *Christopher University Journal of management and Social Sciences*. 2(2) 145 - 154.
- Atuche, F.,(2009).14th CBN Seminar for Finance Correspondence and Business Editors Makurdi, Benue State May 19th – 23rd, 2009
- Ayodele, JO (2015) Crime-Reporting Practices among Market Women in Oyo, Nigeria. *SAGE Open*, 5, 1-11. <https://doi.org/10.1177/2158244015579940>
- Cecchetti, S.G., Mohanty, M.S., & Zampolli, F. (2011). The Real Effects of Debt. Political Economy: *Budget*.
- Inanga, E. L., & Azih, E. (2014). Performance Effectiveness of Technology Incubation in Nigeria. *Bus Eco J*, 5(121), 2.
- Jose, M.L., Lancaster, C. & Stevens, J.L. (1996) corporate returns and cash conversion cycles. *J Econ Finan* 20, 33–46 (1996). <https://doi.org/10.1007/BF02920497>
- Kabuoh, M., Tonade, A. M. A. & Okororie, U. (2014). Challenges Of Debt Management In Guaranty Trust Bank PLC. *International Journal of Advanced Research In Statistics, Management and Finance*. 2(1), ISSN PRINT: 2315-8409, ONLINE: 2354-1644
- Kamar, H., & Ayuma, C. (2016). Effect of Debt Recovery Techniques on Performance of Selected Financial Institutions in Eldoret Town. *International Journal of Humanities and Social Science Invention*, 1-15.
- Lazaridis, I. and Tryfonidis, D. (2006). Relationship between Working Capital Management and Profitability of Listed Companies in the Athens Stock Exchange. *Journal of Financial Management and Analysis*, 19, 26-38.
- Mazen, H. (2014). *Educational Technology*. Introduction to information technology, Dar Alolom, Cairo.



- Mbabazize, R., Turyareeba, D., Ainomugisha, P. and Rumanzi, P. (2020). Monetary Policy and Profitability of Commercial Banks in Uganda. *Open Journal of Applied Sciences*, **10**, 625-653. doi: [10.4236/ojapps.2020.1010044](https://doi.org/10.4236/ojapps.2020.1010044).
- Ogunbiyi, S. S. & Ihejirika, P. O. (2014). Interest Rates and Deposit Money Banks' Profitability Nexus: the Nigerian experience. *Arabian Journal of Business and Management Review*, 3(11), 133-140.
- Reinhart, C. M., & Rogoff, K. S. (2009). *This time is different: Eight centuries of financial folly*. Princeton University Press.
- Sigidov, Y. I., Korovina, M. A., Trubilin, A. I., Govdya, V. V., & Vasilieva, N. K. (2016). Creation of Provision for Doubtful Debts. *International Journal of Economics and Financial Issues*, 6(4), 1542–1549. Retrieved from <https://www.econjournals.com/index.php/ijefi/article/view/3034>
- Taku, F. & Giles, H. (2017). *Biofuels in Southern Africa: Political economy, trade, and policy environment*, WIDER Working Paper Series wp-2017-48, World Institute for Development Economic Research (UNU-WIDER).
- Waweru, K. M. (2011). An Investigation into the Cash Balance Management Challenges in Saccos in Nakuru County, Kenya. *Journal of Research in International Business and Management*, 1, 130-135.
- Zhou, Y., Zhang, Z., Zhu, B., Cheng, X., Yang, L., Gao, M., & Kong, R. (2021). MaxEnt modeling based on CMIP6 models to project potentially suitable zones for *Cunninghamia lanceolata* in China. *Forests*, 12(6), 752. <https://doi.org/10.3390/f12060752>