

Effect of Credit Control on Account Receivables and Profitability of Some Selected Manufacturing Firms in Nigeria

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Abstract

This study sought to establish the effect of credit control on account receivables and the profitability of selected manufacturing firms in Nigeria. The study adopted an ex-post facto design which involves events that have already taken place in the past. The study comprises all manufacturing firms in Nigeria for which the purposive random sampling technique was used to select five accountants from five manufacturing firms in Nigeria. The study adopted secondary data that were extracted from the annual reports of audited financial statements of five (5) manufacturing firms for the period 2013 to 2017. Data collected were analyzed with the use of Pearson Product Moment Correlation Coefficient (PPMC) and Multiple regressions at a 0.05 level of significance. The results showed that account payable and account receivable are related and credit control has a significant effect on the profitability of manufacturing firms in Nigeria, hence it was recommended that account receivable must be properly managed and credit control must be put in place to ensure firms' profitability.

Keywords: Credit Control, Control Account, Account Receivables, Account Payable, **Profitability**

Introduction

Credit facilities remain the most important and powerful engine for economic growth, it transforms the economic structures of countries from simple growing activities to a more vibrant and improved economy. The need for proper management of accounts receivable and account payable cannot be over-emphasized because it is the breakdown of the organization existence. Receivable are a large investment in firms which are like capital budgeting project measured in terms of their net present value, receivable helps to stimulate sales because they assist the customers in assessing the quality of the product before paying. Kelonzo, Manba and Njeru (2016) citing Berry and Jarns (2006) assert that a firm setting up a policy to determine the optimal amounts of accounts receivable must take into account the trade-off between securing sales and profits and the amount of administrative and the opportunity cost of increasing accounts receivable. The aim of account receivable therefore is to reach an optimal balance between cash flow management components. Ability to efficiently manage accounts receivable will enable the firm to improve its profitability by reducing the transaction costs of raising funds in case of a liquidity crisis.

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Accounts receivable is a dynamic financial management process and its effectiveness is directly correlated with a firm's ability to realize its mission, goals and objectives (Sherman, 2010). Despite the role cash flow management plays, many firms have not implemented effective cash flow management practices and the results can be dire (Ahmet, 2012). Even profitable firms can go bankrupt if they fail to manage their accounts receivable effectively, particularly, if they operate in rapid-growth or seasonal industries (Prere, 2010). For a credit policy to be effective, it should not be static but requires review periodically to incorporate changes in a firm, strategic direction and risk tolerance as well as to ensure that the firm operates in line with competition to ensure sales and credit departments are benefiting (Eliots, 2009).

Szabo (2012) notes that due to the speed at which technology is changing and the dynamics in business caused by changes in the internal and external environment, how businesses are conducted today differ significantly from yesteryears. The competitive nature of the business environment requires firms to adjust their policies and strategies frequently for survival and growth (Kathleen, 2010). Although a credit policy ensures the decision making process is logical and simplified it is based on pre-determined parameters at a historical period in time which may not hold at the current time (Venancio 2013). Filbeck and Krueger, (2005) argue that a credit policy being the most important medium of managing and regulating accounts receivables requires frequent reviewing to ensure a firm maintains an optimal investment in accounts receivable while minimizing costs associated with credit and at the same time maximizing the benefits from accounts receivable.

Extending credit to customers is a decision based on the credit management and policy of a firm. Granting credit exists to facilitate sales. On the other hand, Al-Mwala (2012) states that sales are pointless without due payment and therefore the sales and accounts receivable functions must work together to achieve the objective of sales maximization within a minimum length of time. Owalabi and Obida (2012) note that credit sales are a sign that a firm can maximize its sales and improve its financial performance. According to Sushma (2007), an increase in the level of accounts receivables in a firm increases both the net working capital and the cost of holding and managing accounts receivable and both lead to a decrease in the value of the firm. Firms that pursue an increase in the accounts receivable to an optimal level increase their profitability resulting from the increased sales and market share. To extend credit to customers is a result of the decision of the management and their policy. Large inventories and generous credit policy can lead to high sales and at the same time helps reduce the risk of stocking out while stimulating sales at the same time. To delay payment of an account payable to suppliers also allow firms to access products and services which can be an inexpensive and flexible source of financing.

Overdue accounts receivable is delayed payment by customers and is a potential ground for bad debts and subsequent low profitability. Although the extension of Credit as stated by Gill (2010) should only be based on customers' creditworthiness to minimize the level of default and bad debts, firms that use a lenient credit policy tend to give credit to customers on very liberal terms and standards that credit is granted for longer periods even to those customers whose creditworthiness is not well known (Krueger, 2005). Gitau (2014) states that the purpose of credit control is to ensure that trade debts are recovered early enough before they become uncollectible and a loss to the business. Dunn (2009) states that a firm seeking to pursue overdue accounts may remind the debtor through a politely worded letter, a strongly worded letter, send a representative and eventually contemplate a legal action or writing off the debt altogether. Collection efforts may involve



reminding the debtor through a demand note and if no response is received, progressive steps using tighter measures are taken (Pandey, 2008). Gitau (2014) assert that a creditor should use litigation as a last resort to collect a debt that is bad and when there is a major breakdown in the repayment agreement resulting in undue delays and legal action is required to effect collection.

Finally, a debt may be written off when the creditor feels that it is uncollectable. It is honourable to write off bad debt from the books of accounts to give a true and fair view of the firm's financial position. The purpose of this study was to determine the effect of credit control on accounts receivable and the profitability of some selected manufacturing firms in Nigeria.

Statement of the Problem

There are many problems encountered by manufacturing firms as a result of poor credit control. It was observed that there is a high rate of bad debts because some corporations take advantage of the credit that is extended to them and find themselves not able to pay debt later. The poor level of trade credit control is reflected in the liquidity and profitability position of the firm. Also, the inability of business policymakers to certainly say how effectively, credit control makes or mars the performance of the business in terms of profitability and failure to comply with the agreed terms of agreement with the firms when paying the debt constituted a problem for manufacturing firm's profitability. On this note, the study is set to investigate the effect of credit control on account receivables and profitability of manufacturing firms in Nigeria.

The following research questions guided the study:

- 1. Is there any relationship between account payable and account receivable of manufacturing firms in Nigeria?
- 2. Is there any relationship between credit control, account receivable and profitability of manufacturing firms in Nigeria?
- 3. Is there any effect of credit control on account receivables and profitability of manufacturing firms in Nigeria?

The following hypotheses are tested at a 0.05 level of significance.

- There is no significant relationship between account payable and account receivable of manufacturing firms in Nigeria.
- 2. There is no significant relationship between credit control, account receivable and profitability of manufacturing firms in Nigeria.
- There is no significant effect of credit control on account receivables and profitability of manufacturing firms in Nigeria.

Literature Review

Account Receivable of Manufacturing Firms

Account Receivables as a component of cash flow has a direct effect on business profitability. Extending credit to customers is a decision based on the credit management policy of the firm. Although granting credits exist to facilitate sales, on the other hand, Ahwala (2012) asserts that sales are pointless without dues payment and therefore accounts receivable and sales functions must work together to be able to achieve the objective of sales maximization without the minimum length of time. Gill (2010) believes that the extension of credit to customers should be based based on customer credit worthiness to be able to minimize the level of default and bad debts. The main objective of account receivable is to reach an optimal at the balance between cash flow management



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components (Gill, 2011). Efficient account receivable management affords a firm to improve its profitability by reducing the transaction cost of raising funds in case of a liquidity crisis (Ahmet, 2012).

In fact, profitable firms can go bankrupt if they fail to manage their accounts receivable effectively, for instance, if they operate in rapid growth or seasonal industries (Prerel 2010). Not only this Pandey (2008) opined that the average collection period determines the speed of payments by customers and delayed payment is a potential ground for bad debts which can have a negative effect on a firm's financial performance although many firms establish a credit period for their customers and offer discounts to encourage early payment. Maria (2014) asserts that dedication of debt collection resources ensures better timely collection and few instances of bad debts but that when sales are on credit a monitoring system is important to avoid the potential build-up to excessive levels of accounts receivable which would erode set profits. Padachi (2006) corroborates this and states that a collection resource is a control process which ensures that bad debts are recovered early enough before they become uncollectable and thereby become a loss to the organization. It, therefore, means that if there is a delayed payment by a customer which leads to overdue account receivable, it is a potential ground for bad debts which will inadvertently result in subsequent low profitability. Weston and Copeland (2009) state that there are six C'S of credit that credit managers should consider when extending credit, character, capacity, capital, collateral condition and contribution. This will help firms to decrease their default rate as they get to know their customers also information on the six C'S can be obtained from the firm's prior experience with the customers, financial statements for previous years, credit reporting agencies and the customer's financial institutions.

Profitability of Manufacturing Firms

Many of the current asset management models that are found in financial management literature assume book profit maximization as the basic financial purpose. The small and medium enterprise value maximization strategy is executed with a focus on risk and uncertainty. An increase in the level of accounts receivables in a firm increases both net working capital and the costs of holding and managing accounts receivables. Both of these decrease the value of the firm, but a liberal policy in accounts receivable coupled with the portfolio management approach could increase the value (Mavutha, 2010).

Achieving excellence in managing receivables is critical to realizing and optimizing the profits and cash benefits from increased revenue. According to Salek (2005), there are three measures of receivable management which can unlock greater profitability, these include: having a proper strategy of receivables management which supports the overall company strategy; having a fast and effective dispute resolution process which release money tied up in disputed invoice as fast as possible and lead to increased cash flow and accurate order fulfilment and invoicing. In addition to improving cash flow, accurate order fulfilment and invoicing enhance a company's image as a total quality supplier and improve productivity. Without profits, a firm cannot attract outside capital; moreover, present owners and creditors would become concerned about the company's future and attempt to recover their funds. Owners of the firm, creditors and management pay close attention to boosting profits due to the great importance placed on earnings in the marketplace (Owele & Makokeyo, 2015).



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Theoretical Framework

This section presents the various definitions of credit management theory theories by different research scholars and then reviews the theoretical framework of the study. The transaction theory, portfolio theory and information theory are the main theory used in this study, as the theoretical framework to analyse more on the effect of credit management on firm profitability.

Transactions Costs Theory

First developed by Schwartz (1974), this theory conjectures that suppliers may have an advantage over traditional lenders in checking the real financial situation or the creditworthiness of their clients. Suppliers also have a better ability to monitor and force repayment of the credit. All these superiorities may give suppliers a cost advantage when compared with financial institutions. Three sources of cost advantage were classified by Petersen and Rajan (2014) as follows: information acquisition, controlling the buyer and salvaging value from existing assets. The first source of cost advantage can be explained by the fact that sellers can get information about buyers faster and at a lower cost because it is obtained in the normal course of business. That is, the frequency and the number of the buyer's orders give suppliers an idea of the client's situation; the buyer's rejection of discounts for early payment may serve to alert the supplier of a weakening in the creditworthiness of the buyer, and sellers usually visit customers more often than financial institutions do

Portfolio Theory

Since the 1980s, companies have successfully applied modern portfolio theory to market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, credit risk remains the largest risk facing most companies, and the practice of applying modern portfolio theory to credit risk has lagged (Margrabe, 2007). Companies recognize how credit concentrations can adversely impact financial performance. As a result, several institutions are actively pursuing quantitative approaches to credit risk measurement. This industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted. (Kairu, 2009). The combination of these developments has vastly accelerated progress in managing credit risk in a portfolio context.

Traditionally, organizations have taken an asset-by-asset approach to credit risk management. While each company's method varies, in general, this approach involves periodically evaluating the quality of credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio's expected losses. The foundation of the asset-by-asset approach is a sound credit review and internal credit risk rating system. This system enables management to identify changes in individual credits, or portfolio trends promptly. Based on the changes identified, credit identification, credit review, and credit risk rating system management can make necessary modifications to portfolio strategies or increase the supervision of credits in a timely manner. While the asset-by-asset approach is a critical component of managing credit risk, it does not provide a complete view of portfolio credit risk, where the term risk refers to the possibility that actual losses exceed expected losses. Therefore, to gain greater insight into credit risk management, companies increasingly look to complement the asset-by-asset approach with a quantitative portfolio review



using a credit model (Mason & Roger, 1998). Companies increasingly attempt to address the inability of the asset-by-asset approach to measuring unexpected losses sufficiently by pursuing a portfolio approach. One weakness of the asset-by-asset approach is that it has difficulty identifying and measuring concentration. Concentration risk refers to additional portfolio risk resulting from increased exposure to credit extension, or to a group of correlated creditors (Richardson, 2002).

Information Theory

Derban, Binner and Mullineux (2005) recommended that borrowers should be screened especially by banking institutions in form of the credit assessment. The collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by symmetric information theory. Qualitative and quantitative techniques can be used in assessing the borrowers although one major challenge of using qualitative models is their subjective nature. However, according to Derban, Binner and Mullineux (2005), borrowers' attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. This technique minimizes processing costs, and reduces subjective judgments and possible biases. The rating systems will be important if it indicates changes in the expected level of credit loan loss. Brown Bridge (1998) concluded that quantitative models make it possible to numerically establish which factors are important in explaining default risk, evaluating the relative degree of importance of the factors, improving the pricing of default risk, screening out bad loan applicants and calculating any reserve needed to meet expected future loan losses.

Empirical Review

Onuorah and Ifeacho (2017) investigated the effect of credit management on the profitability of manufacturing firms in Nigeria. The results of the study, which used some selected companies listed on the Nigerian Stock Exchange as a sample and covering the period from 2010 to 2014, show that credit policy and liquidity management are negatively correlated with return on assets. The authors, therefore, recommend that the sales department of a company ought to make use of an adequate credit policy for efficient operations. As is observed in the study by Sharma and Kumar (2011), the consequence of a financial crisis on receivables is of enormous relevance because, according to Bastor and Pindado (2012), a crisis causes trade credit contagion as a consequence of financial contagion between intermediaries.

Okpe and Duru (2015) investigated the effect of receivable management on the profitability of building materials/chemical and plant manufacturing firms in Nigeria. The results of the study show that accounts receivable have a significant and positive effect on the profitability of building materials, chemical and plant manufacturing firms in Nigeria at a 1% level of significance while debt ratio and sales growth rate have a negative and non-significant effect on these companies. Yazdanfar and Ohman (2016) carried out a study using a large cross-sectional panel data set covering 15,897 Swedish small-medium scale enterprises in five industrial sectors from 2009 to 2012 to find out the impact of trade credit on profitability among the SMEs. This was done using statistical techniques. The results indicate that the use of trade credit significantly and negatively affects firm profitability. After conducting a survey study to determine the effect of accounts receivable on the financial performance of firms funded by government venture capital in Kenya, Kilonzo et al, (2016) affirm a positive relationship between accounts receivable and the financial performance of firms funded by government venture capital.



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In Ksenija (2013), he investigates how public companies listed in the regulated market in the republic of Serbia manage their accounts receivable during recession times. A sample of 108 firms was used. The accounts receivable policies are examined in the crisis period of 2008-2011. The short-term effects are tested and the study shows that between accounts receivables and two dependent variables on profitability, return on total asset and operating profit margin, there is a positive but no significant relationship. This suggests that the impact of receivables on a firm's profitability is changing in times of crisis.

The study by Baveld (2012) on 37 large firms in the Netherlands during the non-crisis period of 2004 to 2006 and the financial crisis of 2008 to 2009 found a significant negative relation between accounts receivable on profitability, Gill et al (2010) study of 88 American firms listed on New York Exchange for the period 2005 to 2007 found a significant negative relation on accounts receivables and profitability, Laziridis and Tryfonidis (2006) study on 131 companies listed in the Athens Stock Exchange for the period 2001 – 2004 found a significant negative relation on accounts receivables on profitability, Garcia-Teruel and MartinezSolano (2007) study on 8,872 Spanish SME's for the period 1996 to 2002 find a negative relation on accounts receivable on profitability, Mathuva (2010) study of 30 firms listed in the Nairobi Stock Exchange for the period 1993 to 2008 found a negative relation on accounts receivable on profitability. Contradicting evidence is found in this study and the study by Sharma and Kumar (2011) on 263 non-financial BSE 500 firms listed on the Bombay Stock Exchange from 2000 to 2008 which found a significant positive relation between accounts receivable on profitability.

Ramchandran, and Janakiraman, (2009), analyzed the relationship between working efficiency and earnings before interest and tax of the paper industry in India. The study revealed that cash conversion cycle and inventory days had a negative correlation with earnings before interest and tax, while accounts payable days and accounts receivable days related positively with earnings before interest and tax. Grzegor (2008) in his study of a portfolio management approach in accounts receivable management, used portfolio management theory to determine the level of accounts receivable in a firm. He found out that there was an increase in the level of accounts receivable in a firm increased both net working capital and the cost of holding and managing account receivables.

Jack and Matthew (1994) state in their article, management of accounts receivable that the simplest means of recovering your accounts receivable is to take active steps to avoid the process entirely. Venkata et al (2013) in their study impact of receivables management on working capital and profitability: a study of selected cement companies in India collected their data from the Annual Reports from the selected cement companies from 2001 -2010. The ratios which highlight the efficiency of receivables management viz, receivables to current assets ratio, receivable to total assets ratio, receivable to sales ratio, receivable to turnover ratio, average collection period, working capital ratio, profitability ratio have been completed using ANOVA statistical tool to know the impact of working capital and profitability of the selected cement companies. Working capital management and profitability were considered dependent variables. The investigation reveals that the receivable management across the cement industry is efficient and shows a significant impact on working capital and profitability.



Methodology

The research work focused on the effect of credit control on account receivables and the profitability of some selected manufacturing firms in Nigeria. The ex-post facto design was used because it involves events that have already taken place in the past. The study comprises all manufacturing firms in Nigeria out of which purposive random sampling technique was used to select five accountants from five manufacturing firms in Nigeria. The lists of the firms are Unilevel Nigeria Plc, Nestle Nigeria Plc, A.G. Leventis Nigeria Plc, etc. The study adopted secondary data that were extracted from the annual reports of audited financial statements of five (5) manufacturing firms. The data used proved to be more reliable since it complied with CAMD 1990 (Companies and Allied matter Decree 1990). Data collected was analyzed with the use of Pearson Product Moment Correlation Coefficient (PPMC) and multiple regressions at a 0.05 level of significance.

Results and Discussion

Hypothesis 1: There is no significant relationship between account payable and account receivable of manufacturing firms in Nigeria.

Table 1: Pearson Correlation Coefficient for the relationship between account payable and account receivable of manufacturing firms in Nigeria

		Account Payable	Account Receivable
Account Payable	Pearson Correlation	1	.887**
	Sig. (2-tailed)		.001
	N	5	5
Account Receivable	Pearson Correlation	.887**	1
	Sig. (2-tailed)	.001	
	N	5	5

P < 0.05 (Significant)

The result presented in Table 1 revealed the relationship that exists between account payable and account receivable (0.887) is high. The P-value (0.001) is less than 0.05 level of significance. Hence, the hypothesis is rejected. This implies that there is a significant relationship between account payable and account receivable of manufacturing firms in Nigeria.

Hypothesis 2: There is no significant relationship between credit control (account payable & account receivable) and the profitability of manufacturing firms in Nigeria.



Table 2: Matrix Correlation Coefficient for the relationship between credit control and profitability of manufacturing firms in Nigeria

		Account Payable	Account Receivable	Profitability
Account Payable	Pearson Correlation	1	.887**	.623
	Sig. (2-tailed)		.001	.004
	N	5	5	5
Account Receivable	Pearson Correlation	.887**	1	.747*
	Sig. (2-tailed)	.001		.013
	N	5	5	5
Profitability	Pearson Correlation	.623	.747*	1
	Sig. (2-tailed)	.004	.013	
	N	5	5	5

P < 0.05 (Significant)

The correlation matrix in table 2 revealed the relationship that exists between account payable & accounts receivable (0.887), account payable & profitability (0.623) and account receivable & profitability (0.747). The p-value (0.013) less than 0.05 level of significance indicated that there exist a significant relationship between account receivable and profitability of manufacturing firms in Nigeria. Thus, the hypothesis is rejected. Hence, there is a significant relationship between credit control (account payable & account receivable) and profitability of manufacturing firms in Nigeria as the P-value (0.004) was less than the 0.05 level of significance.

Hypothesis 3: There is no significant effect of credit control on account receivable and profitability of manufacturing firms in Nigeria.

Table 3: Multiple Regression Analysis Showing the effect of credit control on account receivable and profitability of manufacturing firms in Nigeria

Model	Raw Beta Weight	Std Error	Standardized Beta	Т	Sig	Multiple R	Multiple R ²	${ m Adj}~{ m R}^2$	F
Constant	718273.85	2.6880	20	0.267	0.797				
Account Receivable	0.066	0.192	0.187	0.346	0.739	0.752	0.566	0.442	4.562
Profitability	0.634	0.374	0.913	1.693	0.134				



Table 3 presents the effect of credit control on accounts receivables and profitability of manufacturing firms in Nigeria. The result revealed that credit control has a significant effect on accounts receivable and the profitability of manufacturing firms in Nigeria (F = 4.562, P < 0.05).

The result of the model summary shows that all the independent variable (credit control) accounted for 56.6% ($R^2=0.566$) of the variability in the dependent variables (account receivable & profitability). The remaining 43.4.0% variance in the level of profit made could be attributed to other factors outside the regression model. There is a positive significant composite relationship between the predictor variables and profitability of manufacturing firms in Nigeria (R=0.752, P<0.05). The adjusted R^2 was at 0.442. This implies that the possible inclusion or removal of variable(s) from the regression model will lead to a corresponding decrease in the predictive strength of the independent variables to 55.8%.

Considering the contribution of each of the predictors to variation in profitability of manufacturing firms, credit control is the single best predictor of account receivable and profitability in the firm with a beta weight of 0.913.

Conclusions and Recommendations

Based on the finding of the study, it was concluded that there was a significant relationship between accounts payable and accounts receivable of manufacturing firms in Nigeria. There was a significant relationship between credit control, account receivable and profitability of manufacturing firms in Nigeria and there was a significant effect of credit control on account receivable and profitability of manufacturing firms in Nigeria. Hence, it was recommended that accounts receivable must be properly managed and credit control must be put in place to ensure firms' profitability.

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