# THE IMPACT OF EFFECTIVE CREDIT POLICY ON LIQUIDITY OF MANUFACTURING COMPANIES IN NIGERIA

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**ABSTRACT** This study examines the impact of effective credit policy on liquidity of manufacturing companies in Nigeria. Credit policy from this perspective was viewed from the angle of controlling or regulating credit sales. The study looked into the problems of nonmonitoring and the non-review of the credit policy of organizations as a cause of the liquidity problems associated with credit sales. The study centered mainly on the effects of each of the individual components of credit period, the cash discount and the collection period on an organization's liquidity. Also to ascertained the type of effects that a company's credit policy has on its liquidity. The study involved a survey of four manufacturing companies which include Unilever Nigeria PLC, Cadbury Nigeria PLC, Nestle Nigeria PLC and Nigerian Bottling Company PLC. The Annual Reports and Accounts of year 2007-2011 of the selected companies as well as a questionnaire were subjected to statistical analysis. Analysis of variance (ANOVA) and regression analysis were used in the hypothesis testing. The study revealed that when a company's credit policy is favourable, liquidity is at a desirable level. And also, that manufacturing companies do not monitor and review their credit policy regularly and as a result the allowance of cash discounts could not be minimized as much as expected. We therefore recommended that companies should consider their mission, the nature of business and business environment before setting up a credit policy.

**KEYWORDS**: Credit Policy, Impact, Manufacturing, Liquidity

#### **INTRODUCTION**

Credit Policy can be viewed as written guidelines that set the terms and conditions for supplying goods on credit, customer qualification criteria, procedure for making collections, and steps to be taken in case of customer delinquency. This term can also be refers to as collection policy. It's also the guidelines that spell out how to decide which customers are sold on open account, the exact payment terms, the limits set on outstanding balances and how to deal with delinquent accounts.

Business organization in their attempts to make profit adopt several strategies and one of which is allowing credit to customers. Pandey, (2004) submitted that credit is a marketing tool for expending sales. Credit sales to customers however, must be well monitored because regardless of an organization's share of the market and demand for its products, if there are no measures put in

place to regulate sales made to customers on credit, there could be problems especially those related to liquidity. The importance of credit policy therefore to any business organization cannot be over emphasized because it is a factor that has a strong influence on the cash inflow of an organization from its sales activities which is very critical to any business organization. Every credit policy set by an organization seeks to achieve adequate profitability and flow of cash (liquidity) which are the two basic factors that sustain a business in the present and determines its position in the long run.

A company's credit policy refers to the actions taken by a business to grant, monitor, and collect the cash for outstanding accounts receivable (Maysami, 2010). The credit policy of a typical organization contains the following variables: collection policy, cash discount, credit period and credit standard, while Schilling (1999), classified it as credit limits, credit term, deposits, customer information and documentation. And each of the components of a company's credit policy is used as a tool for monitoring account receivables which is the outcome of credit sales; it covers from the kind of customers that credit may be extended to when actual collections would be made. There is however no particular universal credit policy that should be adopted by every organization. The credit policy of an organization should therefore be based on its particular standards, current economic conditions, and the degree of risk involved. For a manufacturing business organization to achieve its critical objectives of liquidity as it allows credit to customers, concern should be given to its credit policy, it should be adequately planned and its adherence must be strictly emphasized.

The reason for this paper however stemmed from the fact that in manufacturing organizations, it is usual to present, a policy that regulates credit sales to customers. Nowadays companies operate basically on credit rather than cash, both from their suppliers to their customers. The existence of a credit policy itself is however not an issue, the main problem lies in the fact that every manufacturing organization exists in a dynamic and complex environment especially in current times where information technology is the order of the day; trends emerge on a daily basis and the behaviour of customers keep changing. This constantly changing environment affects organizations as well as their decisions and all their policies. A credit policy that is therefore written without an understanding of the market and ample room for change in it and one that is not frequently revisited could become obsolete in a matter of weeks, it is therefore not enough for these policies to be established but there should exist, flexibility, provisions for review and adjustments, this is necessary to help the organization move with the constantly emerging trends in the world of business. There's no one-size-fits-all credit policy—your policy will be based on your particular business and cash-flow circumstances, industry standards, current economic conditions, and the degree of risk involved.

To be able to proffer adequate answers to the problem identified above, this paper will look at the following objectives:

To determine if an organization's credit policy affects its liquidity.

To determine whether an organization's collection period affects its liquidity.

To determine whether an organization's collection policy determines its cash flow.

The primary aim of this study is to discover the various ways of improving an organization's credit policy and how its liquidity may be improved. This study was purposely undertaken to provide useful information to manufacturing organizations. It will however be beneficial to other organizations as it concerns liquidity which is a major priority in most establishments. The study would also benefit financial analysts, future researchers, students of financial management and the general public.

### REVIEW OF RELATED LITERATURE

Credit policy refer to guidelines that spell out how to decide which customers are sold on open account, the exact payment terms, the limits set on outstanding balances and how to deal with delinquent accounts, (Krueger, 2005). According to (Brigham, 1985) credit policy is defined by the credit period, credit standards, the firms collection policy and any discount given for early payments in an organization. Omolumo, (2003) explained credit policy as the decision variable that influences the amount of trade credit that is invested in receivables which a firm may undertake at any given time. Maysami (n.d) opined that credit policy refers to the actions taken by a business to grant, monitor, and collect the cash for outstanding accounts receivable.

Several other authors of literature like (Pandey, 2004), (Atkinson, 2007), etc combination of such terms as credit period, credit standards, collection policy, cash discounts and credit terms. As organizations differ so do their credit policy, while most companies have their own policies, procedures, and guidelines, it is unlikely that any two firms will define them in a similar manner. However no matter how large or small an organization is and regardless of the differences in their operations or product, the effect of its credit policies usually bring about similar consequences, that is, their credit policy is either good enough to bring growth and profits or bad enough to bring declination and losses. This similarity is as a result of the aim of every manager which is to collect their receivables efficiently and effectively, thus maximizing their cash inflows.

The issue of credit policy zeroes down to account receivables (Charles, 2009). Accounts receivable, can be broadly defined as uncollected sales or sales on credit. (Nwude, 2003) described accounts receivable as amount owed to a firm by its customers who have purchased goods or services on credit. The accounts receivable is one of the largest assets of a business, (Dunn, 2009). As a result of this tangible proportion which receivables take in the whole of an organization's assets and due to its vulnerability to bad debts and losses, it is necessary to manage it appropriately. Credit policy is the most popular medium of managing and regulating receivables.

According to (Miller, 2008), there are at least four reasons why an organization should have a written credit policy, and they each add to the productivity of the entire organization:

First, the responsibility of managing receivables is a serious undertaking. It involves limiting bad debts and improving cash flow. With outstanding receivables often being a firm's major asset, it is obvious that a reasoned and structured approach to credit management is necessary.

Second, a policy assures a degree of consistency among departments. By writing down what is expected, the arms of the company (whether marketing, production, or finance) will realize that

they have a common set of goals. Also, a written policy can delineate each department's functions so that duplication of effort and needless friction are avoided.

Third, it provides for a consistent approach among customers. Decision making becomes a logical function based on pre-determined parameters. This simplifies the decision process and yields a sense of fairness that will only improve customer relations.

Finally, it can provide some recognition of the credit department as a separate, one which is worthy of providing input into the overall strategy of the firm. This allows the department to be an important resource to upper management.

From the above, it can be clearly seen that developing a policy is more than a necessity. It is an opportunity to improve the efficiency of the entire organization.

The purpose of designing a credit policy is to achieve certain objectives among which are: to minimize bad-debt losses, accounts receivable outstanding, maintaining financial flexibility, optimization of the company's mix of assets, conversion of the receivables to cash on a timely basis, support the goals of the sales and marketing function whenever possible and to respect the overall corporate financial constraints.

Liquidity characterizes the financial situation of the company; its ability to convert assets into cash or to obtain cash to meet short-term obligations (Pacurari, 2008). Liquidity may be defined as the ability of a firm to meet its financial obligations as they fall due.

"There is a quantity dimension and a time dimension to liquidity. If you hold cash or readily realizable assets such as government securities, your liquidity is soundly based. If it consists of debtors, it is dependent on their ability and willingness to pay. If it consists of goods, liquidity is a function of the sale-ability of those goods and may be low if they are not in demand" (Miller, 2008).

The statement above analyzes liquidity with the components of current assets and their ability to be converted into cash. The balance sheet shows the values of these components and enables users to measure the liquidity of the firm, i.e. the relationship between current assets and current liabilities.

Therefore the efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of the inability to meet due short-term obligations, on one hand, and avoids excessive investment in these assets, on the other. This is due in part to the reduction of the probability of running out of cash in the presence of liquid assets. However the ultimate measure of the efficiency of liquidity planning and control is the effect it has on profits and shareholders' value. The working capital approach to liquidity management has long been the prominent technique used to plan and control liquidity.

To measure liquidity, Farris & Hutchison (2002) posited that corporate liquidity is examined from two distinct dimensions, the static or dynamic views. The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet amounts.

These ratios measure liquidity at a given point in time whereas dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by cash conversion cycle.

According to (Szabo, 2005) for a credit policy to be effective it must not be static, the policy must be reviewed from time to time regardless of how serviceable it proves to be. The review and adjustments are necessary because of dynamics in business caused by changes in its internal and external environment. He also added that a successful credit policy should benefit both account receivables and sales; this can be achieved by reciprocation between concerned departments (sales and credit). Szabo suggested regularly, scheduled meetings between the sales manager, the business and finance manger as appropriate to promote understanding of policies and bring to light problems with policy and procedure, prior to a formal credit policy review, also effective communication between the sales and credit department is critical, to know the point at which changes may be made to credit policy.

Farris & Hutchison (2002), posited that corporate liquidity is examined from two distinct dimensions, the static or dynamic views. The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet amounts. These ratios measure liquidity at a given point in time whereas dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by cash conversion cycle. In a study conducted by (Moss & Stine, 1993) on retail firms revealed that firm size is a factor in the length of the cash conversion cycle. The study indicated that larger firms have shorter cash conversion cycle. Another significant finding of the same study is that when the cash conversion cycle is compared to the current and quick ratios, a significant positive relationship is found.

The studies that empirically examine the relationship between profitability and liquidity carried out by Jose, (1996) showed that there exists a significant and negative relationship between profitability and cash conversion cycle (liquidity). Another study conducted by (Hutchison etal 2007) indicated a direct correlation between shorter cash conversion cycle and higher profitability for 75% of the industries examined. Schilling (1996) mentioned optimum liquidity position, which is the minimum level of liquidity that is necessary to support a given level of business activity. He then set up the relationship between the cash conversion cycle and minimum liquidity required such that if the cash conversion cycle lengthens, the minimum liquidity required increases. Conversely, that if the cash conversion cycle shortens, the minimum liquidity required decreases.

#### RESEARCH METHODOLOGY

The research work was carried out on the manufacturing industry in Nigeria based on a sample of four manufacturing companies in Nigeria. The research work was designed in such a way that data was generated from the annual reports and accounts (2007-2011) of these companies as part of the secondary data. The sample size of this project constitutes four Nigerian manufacturing companies. They include: Cadbury Nigeria plc, Nestle Nigeria plc, Nigerian bottling company and Unilever Nigeria ltd. A total number of 100 copies of a questionnaire would be administered, 25 for each of sample company. These companies where selected using judgmental sampling

technique in order to have a representation of the population. The judgmental sampling technique involves the use of best of judgment in selecting the sample from the population. The companies were selected because of their size and wide range of products which are all over the country. To the best of the researcher's judgment, the companies make a good representation of the manufacturing industry of Nigeria.

The expert opinion validity stems from the review of the questionnaire by an expert in the field during the pilot study carried out by the researcher. Sampling validity also stems from the selected sample companies which make a good representation of the population which is the reliability test used was the Cranach's reliability test, used to test the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and / or multi-point formatted questionnaires or scales (with a rating scales of: 1 = poor, 5 = excellent) the higher the score, the more reliable the generated scale is. If the results obtained from the test is 0.7 and above, then the instrument is reliable (Archibong, 2004).

Data analysis as related to this research work involves statistically analyzing the data collected to form a basis of accepting or rejecting the hypothesis. Data from the questionnaire was analyzed using percentage statistical method by the conversion of frequencies into percentages through the use of special software for statistics which is called Statistical Package for Social Sciences (SPSS). For testing the hypothesis, a statistical non-parametric test called Analysis of Variance (ANOVA) was used because it measures or tests three or more independent means. The regression analysis was also used in testing the secondary data.

However for the purpose of this study, the regression analysis will require the specification of a model for reasonable analysis shown thus:  $Y_1=f(X)$   $Y_2=f(X)$  Where:

X=DCP (Debtor's Collection Period)  $Y_1=RCA$  (Return on Current Assets)  $Y_2=CCC$  (Cash Conversion Cycle).

#### **Hypothesis Testing**

Null (H<sub>0</sub>): Credit policy does not have a negative effect on the liquidity of manufacturing companies. The Secondary data were used for the hypothesis testing, that is the annual reports and accounts of year 2007 – 2011 of the Companies under study. Using the following variables: Debtors' Collection Period (DCP), Return on Current Assets (RCA) and Cash Conversion cycle (CCC) from 2007 to 2011 for Unilever Nigeria Plc, Cadbury Nigeria Plc, Nestle Nigeria Plc and Nigerian bottling company.

Table 1 POOLED DATA OF THE DCP, CCC AND RCA

COMPANY	YEAR	DCP	CCC	RCA%
UNILEVER NIGERIA	2007	21	162	29.2
PLC	2008	17	74	38.5
	2009	83	131	18.4
	2010	39	117	-10.6
	2011	37	81	21.7
CADBURY NIGERIA PLC	2007	68	113	38.5
	2008	84	159	30.9
	2009	111	143	20.5
	2010	67	9	-11.5
	2011	25	65	-30.6
NESTLE NIGERIA PLC	2007	7	70	47.7
	2008	10	70	43.8
	2009	11	60	45.3
	2010	5	68	42.4
NIGERIAN BOTTLING	2011	6	43	39.5
COMPANY PLC.	2007	10	0	53.5
	2008	7	20	29.8
	2009	3	82	24.6
	2010	1	71	18.5
	2011	1	70	33.2

Source: computations from annual reports and accounts (2007-2011)

Table 2 MEAN AND STANDARD DEVIATION OF POOLED DATA

	Mean	Std. Deviation	N
DCP	30.65	33.503	20
CCC	80.40	45.648	20
RCA	26.165	21.640	20
Valid N (listwise)			

Source: Researchers field work

The table above depicts that the mean of the debtor's collection period is 30.65 showing the debtor's collection period of the companies on the average. The cash conversion cycle of all the companies on the average was 80.4 and the return.

Table-3 ANOVA

	12110 112				
	Sum of	Df	Mean Square	F	Sig.
	Squares				
Between	.389	3	.130	.573	.634
Groups					
Within Groups	18.317	81	.226		
Total	18.706	84			

Source: Researchers field work

Level of significance: 0.05 Calculated F-value: 0.573 Tabulated F-value: 3.96

**Interpretation**: The result shows that the tabulated value of F (3.96) is greater than the calculated value of F (0.573) at a 5% level of significance. This implies that the null hypothesis should be accepted and the alternative should be rejected. Thus credit policy does not have a negative effect on the liquidity of a manufacturing company.

Table-4 Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548(a)	.300	.261	39.229

Predictors: (Constant), DCP
Source: Researchers field work

The table above depicts the model summary. It shows how much of the variance in the dependent variable (Cash Conversion Cycle) is explained by the independent variable (Debtor's Collection Period). The R square value is 0.300. This means that the Debtor's Collection Period explains 30% of the variance in Cash Conversion Cycle. The adjusted R square shows .261, while the standard error of estimate indicates 39.229 which represents the error term that was not captured in the model.

Table 5 Coefficients (b)

T UDIC C	Cocincici	100 (0)			
	Un-standardized		Standardized		
Model	Coefficients		Coefficients	T	Sig.
1 (Constant) DCP	В	Std. Error	Beta	В	Std. Error
	57.515	12.031		4.781	.000
	.747	.269	.548	2.780	.012
Dependent					
Variable: CCC					

Source: Researchers field work

The table above depicts that the beta coefficient is 0.548 with a significance level of 0.012. This indicates that the effect of the debtors collection period (which represents credit policy) on the

companies' Cash Conversion Cycle (which represents profitability) is positive and significant, which means that as the Debtor's Collection Period falls, the Cash Conversion Cycle also falls. This also supports the ANOVA results to accept the null hypothesis that Credit policy does not have a negative effect on the liquidity of manufacturing companies.

### **Interpretation**

The result shows that credit policy does not have a negative effect on the liquidity of manufacturing companies implies that a favourable credit policy would result in a favourable liquidity position; this is explained by the results of the analysis of the secondary data which shows that as the debtor's collection period falls, the cash conversion cycle also falls.

#### **EMPIRICAL RESULTS**

**Table 6: Rate of Response by Respondents** 

Questionnaire	Respondent	Percentage (%)
Returned	85	85%
Not Returned	15	15%
<b>Total Distributed</b>	100	100%

Source: Researchers field work

The above table depicts that a total number of 100 questionnaires were administered 25 were administered to the administrative staff Unilever Nigeria Plc, 25 to Cadbury Nigeria Plc, 25 to Nigerian Bottling Company and the remaining 25 to Nestle Nigeria Plc. Out of which 85% were returned and they were all filled by the respondents, 15% of the questionnaires were not returned at all.

Table 7: EFFECTS OF CREDIT POLICY ON LIQUIUDITY THE LENGTH OF THE COLLECTION PERIOD AFFECTS LIQUIDITY

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	7	8.2	8.2	8.2
Disagree	28	32.9	32.9	41.2
Undecided	17	20.0	20.0	61.2
Agree	27	31.8	31.8	92.9
Strongly Agree	6	7.1	7.1	100.0
Total	85	100.0	100.0	
Mean	2.96			
<b>Standard Deviation</b>	1.128			

Source: Researchers field work

The table above depicts that 32.9% of the respondents strongly disagree that the length of debtors' collection period affects liquidity, 31.8% strongly disagree and 7.1 agree. Majority were of the opinion that the length of the collection period does not affect liquidity. The question has a mean of 2.96 and a high standard deviation of 1.128, this means that most of the responses were 2, indicating that respondents disagree to the statement that the length of the collection period affects liquidity.

Table 8: THE CREDIT TERMS ARE REASONABLE ENOUGH TO INDUCE PROMPT PAYMENT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	2.4	2.4	2.4
Disagree	19	22.4	22.4	24.7
Undecided	9	10.6	10.6	35.3
Agree	52	61.2	61.2	96.5
Strongly Agree	3	3.5	3.5	100.0
Total	85	100.0	100.0	
Mean	3.41			
<b>Standard Deviation</b>	.955			

Source: Researchers field work

The table above depicts that 61.2% of the respondents agree that the credit terms of their organizations are reasonable enough to induce prompt payment, 22.4% disagree, 10.6% are unsure, 3.5% strongly agree and 2.4% strongly disagree. Majority were of the opinion that manufacturing organizations set credit terms that are reasonable enough to induce sales. The question has a mean of 3.41 and a standard deviation of 0.955. This means that most of the responses were 4, indicating that the respondents agree that their credit terms are reasonable enough to induce prompt payment.

Table 9: WHAT EFFECT HAS THE CREDIT POLICY HAD ON THE ORGANIZATION'S OBLIGATIONS TO ITS OWN CREDITORS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Negative	3	3.5	3.5	3.5
Positive	80	94.1	94.1	97.6
Neutral	2	2.4	2.4	100.0
Total	85	100.0	100.0	
Mean	2.01			
Standard Deviation	.362			

Source: Researchers field work

The table above depicts that 94.1% of respondents are of the opinion that the credit policy has a positive effect on the organization's ability to satisfy obligations to its own creditors, 3.5% are of the opinion that the organization's credit policy has a negative effect on its obligation to its own creditors. Majority were of the opinion that credit policy has a positive effect on its creditors.

Table 10: THE PRODUCTION CYCLE IS CONSIDERED WHEN SETTING THE CREDIT STANDARDS AND COLLECTION PERIOD

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	2.4	2.4	2.4
Disagree	7	8.2	8.2	10.6
Undecided	55	64.7	64.7	75.3
Agree	21	24.7	24.7	100.0
Strongly Agree	85	100.0	100.0	
Total				
Mean	4.12			
<b>Standard Deviation</b>	.644			

Source: Researchers field work

The table shows that 64.7% agree to the subject that production cycle is considered when setting credit standards ad collection period, 24.7% strongly disagree to the subject, 8.2% are indecisive and 2.4% disagree to the contrary. Majority were of the opinion that the production cycle of manufacturing organizations are considered before the credit standards are set. The question has a mean of 4.12 and a standard deviation of 0.644. This means that most of the responses were 4, confirming the statement that the production cycle is considered when setting the credit standards and collection period.

Table 11: WHAT EFFECT HAS THE CREDIT POLICY HAD ON THE ORGNIZATION'S OBLIGATIONS TO ITS OWN CREDITORS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Negative	3	3.5	3.5	3.5
Positive	80	94.1	94.1	97.6
4	2	2.4	2.4	100.0
Total	85	100.0	100.0	
Mean	2.01			
Standard Deviation	.362			

**Source: Researchers Field work** 

On current assets of the companies on the average was 21.64.

Table 12 CRANACH'S RELIABILITY TEST

Cranach's	N of
Alpha	Items
.723	16

Source: Researchers field work

Alpha coefficient ranges in value from zero to one and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-

point formatted questionnaires or scales (that with a rating scale of: 1 = poor, 5 = excellent) the higher the score, the more reliable the generated scale is. With the above reliability coefficient is 0.723 which is above 0.7, it can therefore be concluded that the research instrument is reliable.

#### **CONCLUSION**

From the findings of this study, the researchers draws the following conclusion:

The consideration of the credit period allowed to organizations by their own suppliers when setting the credit standards and collection period will minimize the problem of cash flow and liquidity. Companies have a better chance of maintaining a desirable level of liquidity if their credit policy is regularly revisited and adjusted. There is no particular recommended credit policy for organizations (Brigham, 1999); credit policy should therefore be established considering factors as: the nature of the organization's business, its share of the market, its immediate external environment and the level of competition.

#### RECOMMENDATIONS

The monitoring and review of credit policy can reduce the issue of having to deal with the dilemma involved in choosing between profitability and liquidity because new trends relating to customer behaviour and competition would be discovered which would help make effective adjustments to the credit policy. Organizations should consider their mission, the nature of business and business environment before setting up a credit policy and the credit policy should not be disregarded after it is created.

#### SUGGESTIONS FOR FURTHER STUDY

The following are the researchers' recommendation for further research:

The scope may be expanded to the banking and oil sector.

Issue of cash discount and bad debts could be considered

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