

THE CREDIT MANAGEMENT ON LIQUIDITY AND PROFITABILITY POSITIONS OF A MANUFACTURING COMPANY IN NIGERIA

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ABSTRACT

This paper critically assesses the effects of credit management on liquidity and profitability positions of a manufacturing company. Three hypotheses were formulated in line with the objectives of the study. Descriptive research design was adopted. Samples of two manufacturing companies were selected. Data were obtained from annual accounts of the companies under study. Data obtained were analyzed by use of financial ratios and the three hypotheses formulated were tested with ANOVA using SPSS statistical package 20.0 version. From the analysis made, the researchers found that credit policy can affect profitability management in manufacturing companies in Nigeria and there is a significant correlation between liquidity position and debtors' turnover of the company in Nigeria. Finding also shows that there is a relationship between liquidity management and corporate profitability. Based on the findings, the researcher recommends among others that there is need for companies to maintain adequate liquid assets and eliminate bad debt losses and other associated costs of credit and that company should intensify efforts to engage the services of factoring agents. This will reduce the incidence of bad debts losses and other associated costs of credit.

Keywords: Credit management, Liquidity and Profitability maximization.

INTRODUCTION

Business enterprises today use trade credit as a prominent strategy in the area of marketing and financial management. Thus, trade credit is necessary in the growth of the businesses. When a firm sells its products or services and does not receive cash for it, the firm is said to have granted trade credit to its customers. Trade credit thus creates accounts receivables which the firm is expected to collect in future (Kungu, Wanjau, Waititu & Gekara, 2014). Accounts receivables are executed by generating an invoice which is delivered to the customer, who in turn must pay within and with the agreed terms. The accounts receivables are one of the largest assets of a business enterprise comprising approximately 15% to 20% of the total assets of a typical manufacturing firm (Dunn, 2009). Investment in receivables takes a big chunk of organization's assets. These assets are highly vulnerable to bad debts and losses. It is therefore necessary to manage accounts receivables appropriately.

Trade credit is very important to a firm because it helps to protect its sales from being eroded by competitors and also attracts potential customers to buy at favorable terms. As long as there is competition in the industry, selling on credit becomes inevitable. A business will lose

its customers to competitors if it does not extend credit to them. Thus, investment in accounts receivables may not be a matter of choice but a matter of survival (Kakuru, 2001). Given that investment in receivables has both benefits and costs; it becomes important to have such a level of investment in receivables at the same time observing the twin objectives of liquidity and profitability.

To remain profitable, businesses must ensure proper management of their receivables (Foulks, 2005). The management of receivables is a practical problem, businesses can find their liquidity under considerable strain if the levels of their accounts receivables are not properly regulated (Samuels & walkers, 1993). Thus management of accounts receivables is important, for without it; receivables will build up to excessive levels leading to declining cash flows. Poor management of receivables will definitely result into bad debts which lowers the business' profitability.

The growth in economic activities as currently witnessed in Nigeria; in our present democratic government with its attendant limited financial resources available to the operators of the market has no doubt brought about increase in credit transaction (Ifurueze, 2013). The impact depends on the skill and prowess with which the companies manage their credit sales. Beckan and Richard (1984) have seen that most companies after granting credit sales rely on them as assets without providing adequately for possible. With this situation, the financial statements of such companies obviously will lack true and fair view because of the fact that the amount of trade debtors cannot be fully realized.

In the same vein liquidity problem is not left out when granting credit sales. This arises from over investment in receivables especially when the debtors are of high risk class. A company suffering from liquidity problem implies that the cost of obtaining funds from other sources may be high and a credit sale beyond the optimal level of credit is dangerous. On the other hand, sales level and profitability are reduced as a result of high or tight credit policy or not granting credit at all.

Liquidity management and profitability are very important issues in the growth and survival of business and the ability to handle the trade-off between the two a source of concern for financial managers. Liquidity management and profitability are very important in the development, survival, sustainability, growth and performance. Profitability does not translate to liquidity in all cases. A company may be profitable without necessarily being liquid. Therefore, liquidity should be managed in order to obtain an optimal level, that is, a level that avoid excess liquidity which may translate to poverty of ideas by management. Also liquidity level should not fall below minimum requirement as it will lead to the inability of the organization to meet short term obligation that are due.

One of the major reasons that may cause liquidation is illiquidity and inability to make adequate profit. These are some of the basic ingredient of measuring the "going concern" of an establishment. For these reasons companies are developing various strategies to improve their liquidity position. Strategies which can be adapted within the firm to improve liquidity and cash flows concern the management of working capital, areas which are usually neglected in times of favourable business conditions (Pass & Pike, 1984).

Due to the speed in which technology is changing and the dynamics in business caused by changes in their internal and external environment, the ways in which businesses are conducted today differ significantly from yester years. Therefore, for a credit policy to be

effective it should not be static (Szabo, 2005 & Ojeka, 2012). Credit policy requires to be reviewed periodically to ensure that the organizations operate in line with the competition. This will ensure further that sales and credit departments are benefiting. 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 effects of credit policies usually bring about similar consequences. Effects of a credit policy are 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 (Ojeka, 2012).

This is contrary under competitive business environment where survival depends on the volume of turnover (sales) which in turn leads to trade debt accumulation. Here debtors cannot be completely avoided it is therefore the work of the management to initiate policies concerning credit sales so that they will survive in the business environment they find themselves. Meanwhile, the study is to assess the significant effect of credit management on the liquidity and profitability management of manufacturing companies in Nigeria.

Objectives of the Study

1. To determine the extent to which credit policy can affect profitability management in manufacturing companies in Nigeria.
2. To determine the significant correlation between liquidity position and debtors turnover of the company in Nigeria.
3. To determine there is any relationship between liquidity management and corporate profitability.

Hypotheses

1. H₀: Credit policy cannot affect profitability management in manufacturing companies in Nigeria.
H₁: Credit policy can affect profitability management in manufacturing companies in Nigeria.
2. H₀: There is no significant correlation between liquidity position and debtors' turnover of the company in Nigeria.
H₁: There is a significant correlation between liquidity position and debtors' turnover of the company in Nigeria.
3. H₀: There is no relationship between liquidity management and corporate profitability.
H₁: There is a relationship between liquidity management and corporate profitability.

Review of Related Literature

Conceptual Frameworks

Liquidity management is a concept that is receiving serious attention all over the world especially with the current financial situations and the state of the world economy. The concern of business owners and managers all over the world is to devise a strategy of managing their day to day operations in order to meet their obligations as they fall due and increase profitability and shareholder's wealth (Owolabi & Ibida, 2012).

The importance of liquidity management as it affects corporate profitability in today's business cannot be over emphasized. The crucial part in managing working capital is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation (Eljelly, 2004). Liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010). Dilemma in liquidity management is to achieve desired tradeoff between liquidity and profitability (Raheman & Nasr 2007). Liquidity requirement of a firm depends on the peculiar nature of the firm and there is no specific rule on determining the optimal level of liquidity that a firm can maintain in order to ensure positive impact on its profitability.

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 Miller (2008), 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.

Pandey (2004), bad debt losses arise when the firm is unable to collect its accounts receivable. The size of bad debt losses depends on the quality of accounts accepted by the firm. In the words of Uchegbu (2001), it is wise to discourage bad debts and efforts should be made to encourage discount more importantly cash discount.

Donald and Penne (1987), debtors or accounts receivable in a firm are claims held against others in the operating circle. Trade debtors are further classified into trade debtors and non-trade debtors. The amount which is owed by customers for goods and services sold in the course of carrying on a business is termed trade debtors while on the other hand any amount owed by customers arising from a variety of transactions that are oral or written promises to pay other than goods at a later date is called non-trade debtors.

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Krueger, (2005) credit policy is designed to minimize costs associated with credit while maximizing the benefits from it. Credit policy refers 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 According to (Pandey, 2007; Atkinson, Kaplan & Young, 2007 and Brigham, 1985) credit policy is defined in the manner

as the combination of such terms as credit period, credit standards, collection period, cash discounts and cash terms. Therefore, despite the fact that organizations have different credit policies, the content of these policies must touch on credit period, credit standards, collection period and credit terms.

A lenient credit policy tends to give credit to customers on very liberal terms and standards such that credit is granted for longer periods even to those customers whose credit worthiness is not well known. A stringent credit policy on the other hand is restrictive and allows credit only to those customers whose credit worthiness have been ascertained and are financially strong. There are no two organizations with a similar credit policy. Whether lenient or stringent credit policy is adopted by an organization, it must ensure that it attracts and retains good customers, without having a negative impact on the cash flow (Kalunda, Nduku & Kabiru, 2012).

Torre (1997) defines treasury (cash) management as a set of techniques that act on the short-term liquidity of a company, and at the same time affect those factors and processes that translate immediately into cash, with the ultimate aim of increasing both the liquidity and profitability of the company. In this sense cash management is the back bone of liquidity management as it affects corporate profitability. The major problem faced by most businesses is the ability to determine the minimum cash level required by the business. Minimum cash level assist management to maintain enough cash to meet its day-to-day operating expenses (Owolabi & Ibida, 2012).

To prevent breaks or gaps in the trading cycle due to lack of cash, administrators must calculate the cash amount best suited to their level of activity, plan the timing of the relevant payments and collections and draw up a policy of investment in assets with high liquidity that can be converted to cash at a low transactional cost to serve as support for the treasury funds maintained by the company (Kamath, 1985; Srinivasan & Kim, 1986). It is therefore essential to establish the right level of disposable assets to short-term financial investments at companies. Holding the wrong amount in cash or cash equivalent may interrupt the normal flow of business activities. Moreover, the wrong safety margin may result in financial difficulties, with firms unable to meet needs that may arise at any given time or unable to take advantage of unexpected investment opportunities. Maintaining a cash surplus thus has a number of advantages. It enables companies to carry on the normal transactions that arise in the course of their activities and avoid any treasury gaps. It also helps them cover any unexpected needs for cash by acting as a preventive balance. However, there are also disadvantages in being too conservative, as reflected in the opportunity costs entailed by assets with little or no profitability (Owolabi & Ibida, 2012).

Having liquid assets available constitutes an opportunity cost for a company, as the return on those assets is lower than the return on productive investments, but there may still be transaction costs arising from the sale or purchase of financial assets, and disadvantages in terms of taxation. The particular importance of disposable asset management as a responsibility of the company treasurer should lead companies to conduct an overall analysis of this point, covering management of the collections circuit, cash and payment circuit (Palom & Prat, 1984). This overall analysis should strive to shorten collection periods, lengthen payment periods and avoid idle resources that do not generate returns (Masson, 1995). Casanovas and Fernández (2001) is of the idea that treasury management is seen as “administration of the treasury circuit”, entailing chiefly the analysis, study and review of the three circuits indicated (payments, collections and cash holding).

Credit Policy

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 is 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.

Lawrence (2003), the objective of managing accounts receivable is to collect receivable without losing sales from high-pressure collection techniques. Accomplishing this objective encompasses; credit selection and standard which involve the application of technique for determining which customer should receive credit. This process involve evaluating the customer's creditworthiness and comparing it to the firm's credit standard, its minimum requirements for extending credit to customers and credit monitoring which involves ongoing review of the firm's account receivable to determine whether customers are paying according to the stated credit terms. Slow payments are costly to a firm's investment in account receivable.

Debtor management means the process of decisions relating to the investment in business debtors. In credit selling, it is certain that we have to pay the cost of getting money from debtors and to take some risk of loss due to bad debts. To minimize the loss due to not receiving money from debtors is the main aim of debtor management.

Economic conditions and firms credit policies are the chief influence on the level of a firm's account receivable (James, 2002). The trade-off between increase in the market share through credit sales and the collectability of the account receivable affects firm's liquidity and its eventual profitability. A firm may report large profit and still suffer liquidity problem if bulk of its transactions are in account receivable and collection policy in not effective. Credit and collection policies encompasses the quality of accounts accepted, the credit period extended, the cash discount given, certain special terms and the level of collection expenditure. In each case, the credit decision involves a trade-off between the additional profitability and the cost resulting from a change in any of these elements.

Receivable management begins with the decision of whether or not to grant credit. Where goods are sold on credit, a monitoring system is important, because without it, receivable will built up to excessive levels, cash flow (liquidity) will decline and bad debts will offset the profit on sales. Corrective action is often needed and the only way to know whether the situation is getting out of hand is to set up and then follow a good receivable control system (Eugene, 1992).

Eugene, (1992), states that optimal credit policy, hence the optimal level of accounts receivable, depends on the firm's own unique operating conditions. A firm with excess capacity and low variable production cost should extend credit more liberally and carry a higher level of receivable than a firm operating at full capacity on slim profit margin.

Factors That Affect Liquidity Requirement of a Company

The company must maintenance adequate amount of liquidity to meet it daily obligations but liquidity in excess of what is adequately required by the firms to finance it operations may be counter-productive. The liquidity requirement of firms differs depending on the

circumstances of the company. Pandey (2005) outline the following as some of the factors that influence the liquidity requirement of a company.

1. Nature and Size of Business

The liquidity needs of a firm are basically influenced by the nature of its business. Trading and financial firms generally have a low investment in fixed assets, but require a large investment in working capital. Retail stores, for example, must carry large stocks of a variety of merchandise to satisfy the varied demand of their customers. Some manufacturing businesses' like tobacco, and construction firms also have to invest substantially in working capital but only a nominal amount in fixed assets. In contrast, public utilities have a limited need for working capital and have to invest abundantly in fixed assets. Their working capital requirements are nominal because they have cash sales only and they supply services, not products. Thus, the amount of funds tied up with debtors or in stocks is either nil or very small. The working capital needs of most of the manufacturing concerns fall between the two extreme requirements of trading firms and public utilities.

2. Manufacturing Cycle

The manufacturing cycle starts with the purchase of raw materials and is completed with the production of finished goods. If the manufacturing cycle involves a longer period the need for working capital will be more, because an extended manufacturing time span means a larger tie-up of funds in inventories. Any delay at any stage of manufacturing process will result in accumulation of work-in-process and will enhance the requirement of working capital. Firms making heavy machinery or other such products, involving long manufacturing cycle, attempt to minimize their investment in inventories (and thereby in working capital) by seeking advance or periodic payments from customers.

3. Business Fluctuations

Seasonal and cyclical fluctuations in demand for a product affect the working capital requirement considerably, especially the temporary working capital requirements of the firm. An upward swing in the economy leads to increased sales, resulting in an increase in the firm's investment in inventory and receivables or book debts. On the other hand, a decline in the economy may register a fall in sales and, consequently, a fall in the levels of stocks and book debts. Seasonal fluctuations may also create production problems. Increase in production level may be expensive during peak period. A firm may follow a policy of steady production in all season and their quick disposal in peak season. Therefore, financial arrangement for seasonal working capital requirement should be made in advance. The financial plan should be flexible enough to take care of any seasonal fluctuation

4. Production Policy/ Just-in-Time

If a firm follows steady production policy, even when the demand is seasonal, inventory will accumulate during off-season periods and there will be higher inventory costs and risks. If the costs and risks of maintaining a constant production schedule are high, the firm may adopt the policy of varying its production schedule in accordance with the changes in demand. Firms whose physical facilities can be utilized for manufacturing a variety of products can have the advantage of diversified activities. Such firms manufacture their main products during the season and other products during off-season. Thus, production policies may differ from firm to firm, depending upon the circumstances. Accordingly, the need for working capital will also vary.

5. Turnover of Circulating Capital

The speed with which the operating cycle completes its round (i.e., cash → raw materials → finished product → accounts receivables → cash) plays a decisive role in influencing the working capital needs.

Credit Terms

The credit policy of the firm affects the size of working capital by influencing the level of book debts. Though the credit terms granted to customers to a great extent depend upon the norms and practices of the industry or trade to which the firm belongs; yet it may endeavor to shape its credit policy within such constraints. A long collection period will generally mean tying of larger funds in book debts. Slack collection procedures may even increase the chances of bad debts. The working capital requirements of a firm are also affected by credit terms granted by its creditors. A firm enjoying liberal credit terms will need less working capital.

6. Growth and Expansion Activities

As a company grows, logically, larger amount of working capital will be needed, though it is difficult to state any firm rules regarding the relationship between growth in the volume of a firm's business and its working capital needs. The fact to recognize is that the need for increased working capital funds may precede the growth in business activities, rather than following it. The shift in composition of working capital in a company may be observed with changes in economic circumstances and corporate practices. Growing industries require more working capital than those that are static. This could be measured using the percentage increase in total assets

7. Operating Efficiency

Operating efficiency means optimum utilization of resources. The firm can minimize its need for working capital by efficiently controlling its operating costs. With increased operating efficiency the use of working capital is improved and pace of cash cycle is accelerated. Better utilization of resources improves profitability and helps in relieving the pressure on working capital. Operating efficiency can be measured using the Total asset to Sales ratios. This measures the percentage of investment in assets that is needed to generate the annual sales level. If the percentage is very high, it probably indicates that a business is not being aggressive in its sales efforts.

8. Price Level Changes

Generally, rising price levels require a higher investment in working capital. With increasing prices the same levels of current assets need enhanced investment. However, firms which can immediately revise prices of their product upwards may not face severe working capital problems in periods of rising levels. The effects of increasing price level may, however, be felt differently by different firms due to variation in individual prices. It is possible that some companies may not be affected by the rising prices, whereas others may be seriously affected by it.

An enterprise needs funds (liquidity) to operate profitably. The working capital of a business reflects the short-term uses of funds. Apart from the investment in the long-term assets such as buildings, plant and equipment, funds are also needed for meeting day to day operating expenses and for amounts held in current assets. Within the time span of one year there is a continuing cycle or turnover of these assets. Cash is used, to acquire stock, which on being sold results in an inflow of cash, either immediately or after a time lag in case the sales are on credit. The rate of turnover of current assets in relation to total sales of a given time period is

of critical importance to the total funds employed in those assets. The amount needed to be invested in current assets is affected by many factors and may fluctuate over a period of time. Manufacturing cycle, production policies, credit terms, growth and expansion needs, and inventory turnover are some of the important factors influencing the determination of working capital.

The management should ensure the adequacy and efficiency in the utilization of working capital in order to maintain a required level of liquidity needed to meet the firm's obligations as at when due. For this purpose various ratios can be periodically computed and compared against the norms established in this regard.

For efficient management of working capital, management of cash is as important as the management of other items of current assets like receivables and inventories. Too little cash may place the firm in an illiquid position, which may force the creditors and other claimants to stop transacting with the firm. Too much cash results in funds lying idle, thereby lowering the overall return on capital employed below the acceptable level. An adequate amount of cash is always needed for meeting any unforeseen contingencies and also liabilities as well as day-to-day operating expenses of the business.

Reasons for Granting Credit

Companies in the Food and Beverage Sector in Nigeria feel the necessity of granting credit for several reasons. According to Pandey (2004) companies sometimes extend credit to dealers to build long-term relationship with them or to reward them for their loyalty. Efficient credit sales management is necessary for achieving liquidity and profitability of a company (Reddy & Kameswarri, 2004).

c) Effective and Efficient Credit Policy

According to Pandey (1993), he opined that a firm's investments in receivables are effected by some external factors such as the general economic conditions: - Industry norms, competitive activities, political regulations and Technological change. Management naturally wants to make efficient use of the available capital in the business and is also interested in rapid turnover of accounts. Given the circumstance, a firm should formulate a policy suitable for the firm and the commercial environment upon which credit sales will be based. There are three major credit policy variables (factors) RamaMoorthy (1976) V12:

(i) credit standards (ii) credit term (iii) collection period/policy.

The implication of the above policy are many, for instance, it will result to less bad debt losses and cost of credit administration. But such a firm adopting the policy may not be able to expend sales. That is, the profit sacrificed on lost sales may be more than the cost saved by the firm on the contrary, if credit standards are loose, the firm may have large sales volume. But the firm will have to carry large receivables (debtors). The cost of administering credit and bad debts losses will also increase, thus, the choice of optimum credit standards involves a trade-off between incremental return and incremental cost. Weston and Brigham (1986), they enumerated the different types of cost associated with credit sales. Such as: (i) cost of capital tied up in receivables (debtors), (ii) bad debts, (iii) higher investigation, (iv) collection cost.

Pandey (2004: 603). States that the evaluation of a change in the firm's credit policy involves analysis of: (i) Opportunity cost and lost contribution, (ii) Credit administration cost and bad debt losses.

Solomon and Pringle (1977), states that, the firm's credit policy will be determined by the trade-off between opportunity cost and credit administration cost including bad debts losses. In the figure 1; this trade off occurs at point A where the total of opportunity cost of lost contribution and credit administration cost and bad debts losses is minimum. In the words of Brain (1981), the objective of credit control is to strike a correct balance between incremental return and incremental cost.

Credit Qualities

The credit managers should establish criteria for evaluating credit risk. The evaluation criteria according to Brigham (1986) and Emekekwe (1990) they are called the Five (5) Cs thus: Character: Refers to the customer's willingness to pay their obligations.

- i. Capacity: It refers to the customer's ability to pay. Ability to pay can be indeed by assessing the customer's capital and assets which he may offer as security.
- ii. Capital: It is measured by the general financial ratio analysis, with special emphasis on the risk ratios the debt/assets ratios, current ratio and times -interest-earned ratio.
- iii. Collateral: This is represented by assets offered by the customers as a pledge for security of the credit extended.
- iv. Condition: It refers to the preventing economic and other conditions which may affect the customer's ability to pay. Adverse Economic Conditions can affect the ability or willingness of a customer to pay.

An experienced financial or credit manager will be able to Judge the extent and genuineness to which the customer's ability to pay is affected by the economic conditions.

v. Credit Granting Decision: Once a firm has assessed the credit worthiness of a customer, it has to decide whether or not credit should be granted. The firm should use the Net present Value (NPV) rule to make the decision.

Measures of Corporate Liquidity Management

The liquidity of a company is measured with use of some financial ratios refers to as liquidity ratios. This group of ratios measures the ability of the firms to meet its current obligations (Liabilities). Analysis of liquidity needs the preparation of cash budgets and cashflow statement; but liquidity ratio, by establishing a relationship between cash and other current assets to current obligations, provided a quick measure of liquidity (Pandy, 2005). The most common ratios, which indicate the extent of liquidity or lack of it, are:

Debtors Collection Period (DCP): DCP ratio is calculated by dividing Trade debtors by Turnover and multiplies by 365 days, thus

$$\frac{\text{Average trade debtors}}{\text{Turnover}} \times 365 \text{ days}$$

This ratio shows number of days it takes an organization to recover its credit sales, the shorter the period the better for the organization. Accounts receivable with longer recoverable period possesses the risk of bad debt for the company and also affects liquidity in the short run.

Creditor Payment Period (CPP)

CPP ratio is calculated by dividing Average Trade Creditors by Cost of Goods Sold and multiplies the result by 365.

$$\frac{\text{Average trade debtors}}{\text{Cost of goods sold}} \times 365 \text{ days}$$

This ratio shows the number of days the company is required to settle its short term obligations. The longer the period the better for the company as it gives the company leverage to recover its receivables. Where the period is shorter than the debtors collection period, it exerts pressure on the liquidity of the company. Liquidity according to Solomon and Pringle (1977) refers to the ability of a firm to meet its current liabilities as they fall due out of its current assets. Some common ratios connected with evaluating liquidity are the current ratio, the quick or acid ratio, debtor's turnover and inventory turnover.

Measures of Profitability

Profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit. Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets. Irrespective of the fact that profitability is an important aspect of business, it may be faced with some weakness such as window dressing of the financial transactions and the use of different accounting principles.

Profitability: A company's long term survival depends on its being able to earn satisfactory revenue. And such the investors will continue to remain in the business. In the words of Gee (1998), an evaluation of a firm's past earning power may give the investor a better basis for decision-making. A firm's ability to earn an income usually affects its liquidity. For this reason, evaluating profitability is important to both investors and creditors.

These ratios include: (i) Return on capital employed (ROCE) - it measures the overall profitability of a business and it shows how efficiently management utilizes its resources to generate profit.

$$\text{ROCE} = \frac{\text{Profit} \times 100}{\text{Capital employed}}$$

$$\text{Gross profit margin (GPM)} = \frac{\text{Gross profit} \times 100}{\text{Net sales}} \quad 1$$

$$\text{Net profit margin (NPM)} = \frac{\text{Net profit} \times 100}{\text{Net sales}} \quad 1$$

Empirical Studies

The transaction motive theory of trade credit suggests that businesses should provide trade credit by reducing the cost of administering invoices between suppliers and buyers.

undertaking regular exchanges of goods and services (Nilsen, 2002). Manufacturing firms face strong seasonality and uncertainty in the demand for their products and may have to build up large inventories in order to maintain their production levels. By offering credit, firms may be able to manage their inventory positions better and reduce warehousing costs. Financing advantage theories on the other hand suggest that the firm that provides credit to its customers has an advantage over other credit providers in assessing the credit worthiness of his customers (Chee & Smith, 1999; Nilsen, 2002).

It may be noted that credit policy is a rare area of research. Kalunda et al. (2012) carried out a study on pharmaceutical manufacturing companies in Kenya and their credit risk management practices. They used a semi structured questionnaire to solicit information from finance managers or credit controller. They found that the most important factors considered in establishing a credit policy is the financial stability of the customer and existing credit policy. Most widely used credit risk management practices are debt collectors, letter of credit, and credit insurance and factor of debt. When dealing with difficult customers accounts are put on hold and stop future sales till the account is settled

Ojeka (2012) studied four manufacturing companies in Nigeria. He used annual reports and accounts of selected companies as well as questionnaire. His findings revealed that when a company's credit policy is favourable, liquidity is at a desirable level. He further found that the companies that monitor and regularly review their credit policy and reduce cash discount allowances perform quite well in terms liquidity position and profitability.

Uremadu, Egbido and Enyi (2012) carried out a study in Nigeria on working capital management, liquidity and corporate profitability in the manufacturing firms that were quoted. The study used a cross sectional time series data for the period 2005 - 2006. Debtors' collection period was used as proxy or credit policy and represented the length of time it takes the companies to collect proceeds of sales from their debtors. The study established a distorted and non-significant relationship of debtors' collection period with the level of corporate profitability cum liquidity among quoted companies in Nigeria.

Research Methodology

Research Design

Due to the nature of the study, descriptive design research was adopted. The accessible population for the study consists of two the companies listed in Nigerian Stock Exchange. The study covered two years annual reports and accounts of these banks from 2011 to 2013. The name of these companies are: Nigerian Bottling Company and Guinness Nigerian Plc.

Method of Data Analysis

Data analysis as related to this research work involves a statistical tool in analyzing the data collected to form a basis for the hypotheses. For the test of hypotheses, a statistical non-parametric test called Analysis of Variance (ANOVA) was used because it measures or tests three or more independent means. The data are presented in the tables and the results together with the interpretation are presented below. The profitability variables are as follow:

Net Profit Margin (NPM) and Return on Capital Employed (ROCE). While the Liquidity Variables are as follows: Debtors Collection Period (DCP), and Credit payment period (CPP). The data are presented in tables, collected from the annual reports and accounts of year

(2011-2013) of the companies under study. Data obtained were subjected to statistical analysis using Analysis of Variance (ANOVA). Hypotheses formulated for the study were tested with the ANOVA for opinion differences, using the Statistical Package for Social Sciences (SPSS) version 20.0 software package.

Decision rule

Using SPSS, 5% is considered a normal significance level. The accept reject criterion was based on the computed F-Value. If F-value is equal or greater than “Sig” value there is significant interaction effect or significant difference i.e. F-value value \geq sig value we reject Null and accept alternate hypothesis.

Data Analysis

Table 1: The Annual Accounts Analysis of Guinness Nigeria Plc

	Liquidity	2013	2012	2011	Total
1	Debtors Collection Period (DCP) $\frac{\text{Average trade debtors}}{\text{Turnover}} \times 365 \text{ days}$				
		36.865	41.888	46.325	125
2	Creditor Payment Period (CPP) $\frac{\text{Average trade debtors}}{\text{Cost of goods sold}} \times 365 \text{ days}$				
		67.731	75.476	83.485	227
	Total	104.596	117.364	129.81	352
	Profitability				
3	ROCE $\frac{\text{Profit}}{\text{Capital employed}} \times 100$				
		36.944	33.169	64.981	135
4	Net profit margin (NPM) $\frac{\text{Net profit} \times 100}{\text{Net sale 1}}$				
		21.156	26.105	32.57	79.8
	Total	58.1	59.274	97.551	215

Source: Annual Accounts of Guinness, 2011 and 2013

Table 2: The Annual Accounts Analysis of VitaFoam Nigeria Plc

	Liquidity	2013	2012	2011	Total
1	Debtors Collection Period (DCP) $\frac{\text{Average trade debtors}}{\text{Turnover}} \times 365 \text{ days}$				
		95.444	179.974	26.487	302
2	Creditor Payment Period (CPP) $\frac{\text{Average trade debtors}}{\text{Cost of goods sold}} \times 365 \text{ days}$				
		137.134	258.432	38.012	434
	Total	232.578	438.406	64.499	735
	Profitability				
3	ROCE $\frac{\text{Profit}}{\text{Capital employed}} \times 100$				
		16.504	9.101	33.148	58.8
4	Net profit margin (NPM) $\frac{\text{Net profit} \times 100}{\text{Net sale 1}}$				
		15.305	14.197	15.88	45.4
	Total	31.809	23.298	49.028	104.2

Source: Annual Accounts of Vitafoam, 2011 and 2013

Test of hypotheses**Hypothesis one**

H₀: Credit policy cannot affect profitability management in manufacturing companies in Nigeria.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	916.589	1	916.589	7.387	.224 ^b
Residual	124.078	1	124.078		
Total	1040.667	2			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Creditpolicy

Decision: If F-value is equal or greater than “Sig” value, we reject Null and accept alternate hypothesis. Since the F-value is greater than “Sig” value (7.387>.224) we reject null hypothesis and accept alternative hypothesis which stated that credit policy can affect profitability management in manufacturing companies in Nigeria.

Hypothesis Two

H₀: There is no significant correlation between liquidity position and debtors’ turnover of the company in Nigeria.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	15112.042	1	15112.042	.692	.276 ^b
Residual	54847.822	1	54847.822		
Total	69959.864	2			

a. Dependent Variable: Liquiditymanagement

b. Predictors: (Constant), Creditgrant

Decision: If F-value is equal or greater than “Sig” value, we reject Null and accept alternate hypothesis. Since the F-value is greater than “Sig” value (.692>.276) we reject null hypothesis and accept alternative hypothesis which stated that there is a significant correlation between liquidity position and debtors’ turnover of the company in Nigeria, which means that the higher the debtor’s turnover, the higher the liquidity position.

Hypotheses Three

H₀: There is no relationship between liquidity management and corporate profitability.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1803.681	1	1803.681	2.729	.347 ^b
Residual	660.986	1	660.986		
Total	2464.667	2			

a. Dependent Variable: corporateprofitability

b. Predictors: (Constant), Liquiditymanagement

Decision: If F-value is equal or greater than “Sig” value, we reject Null and accept alternate hypothesis. Since the F-value is greater than “Sig” value ($2.729 > .347$) we reject null hypothesis and accept alternative hypothesis which stated that there is a relationship between liquidity management and corporate profitability. This means that when the liquidity is high, the profitability may be come low.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This paper has evaluated the impact of effective management of credit grant on profitability and liquidity of manufacturing Industries in Nigeria. Effective management of credit grant has a positive relationship with the operating profit of the companies in the corporate organizations. This implies that for companies to maximize their profit, they should grant credit to trustworthy customers with an appropriate credit control mechanism. It was also discovered that credit sales increase turnover and profitability in the domains of effective implementation of optimum credit policy in the firms.

There is significant relationship between liquidity position and debtors' turnover of the companies in the manufacturing companies in Nigeria. This implies that a favourable debtor's turnover would result to favourable liquidity position. The high debtor's turnover has a positive effect on the firm's ability to satisfy obligations to its own creditors. That is, tight debtor's collection policy and procedure would minimize the problem of cash flow and liquidity. Due to the effective credit policy in these firms, their financial ratios indicate adequate working capital and liquid assets. The positive correlation between liquidity and debtor's turnover signifies that as the debtor's turnover rises, the liquidity position also rises.

Recommendations

1. There is need for companies to maintain adequate liquid assets and eliminate bad debt losses and other associated costs of credit.
2. Companies should intensify efforts to engage the services of factoring agents. This will reduce the incidence of bad debts losses and other associated costs of credit.
3. Companies should increase the rate of credit sales to trustworthy customers only despite the fact that credit sales is a marketing tool to maintain or expired sales.
4. Firms should monitor, review and adjust credit policy from time to time considering the nature of their business and mission.

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