

**WORKING CAPITAL MANAGEMENT:  
A CASE STUDY OF LOGS AND LUMBER LIMITED (L.L.L)**

**BY**

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**A LONG ESSAY SUBMITTED TO THE DEPARTMENT OF ACCOUNTING**

**AND FINANCE**

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE**

**OF**


**MASTER OF BUSINESS ADMINISTRATION  
(ACCOUNTING)**

**SCHOOL OF BUSINESS  
COLLEGE OF ARTS AND SOCIAL SCIENCES**

**AUGUST, 2009**

## DECLARATION

I hereby declare that this submission is my own work towards the MBA and that , to the best of my knowledge , it contains no material previously published by another person nor material which has been acceptance for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## **Dedication**

I dedicate this project work to my late father Opanin Kwabena Adarkwah Yiadom.

My mother Obaa Panin Yaa Ahenfie and my wife Nicholet Ghunney.

# KNUST



## Acknowledgement

I would like to render my heartfelt thanks to the Almighty God for his love, care and guidance in this level of my education.

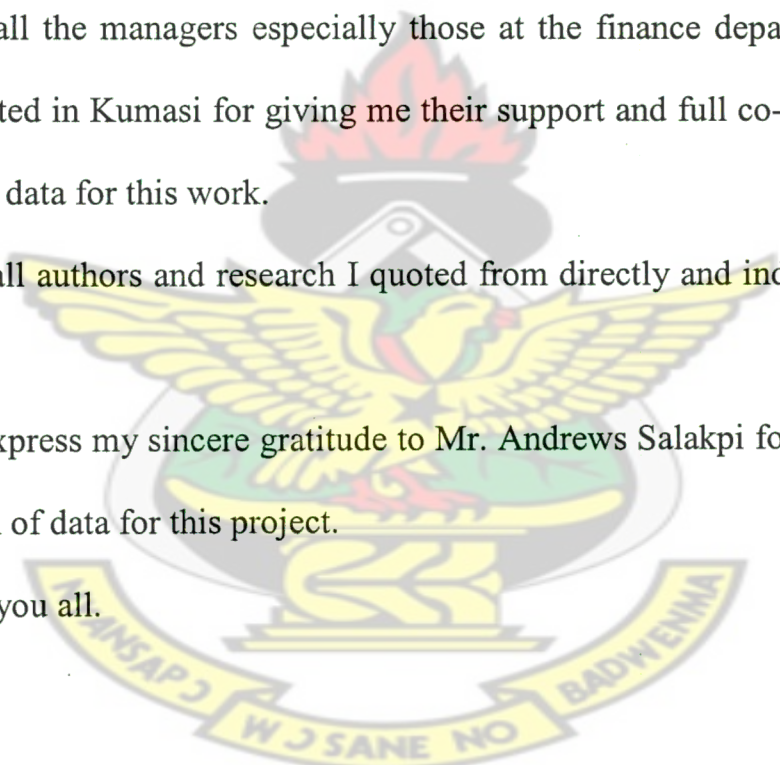
I am very much indebted to Mr. Kingsley Appiah Opoku, my project supervisor whose free, accommodating, constructive criticisms and invaluable suggestions gave meaning to the ideas expressed in this work.

I am also grateful to all the managers especially those at the finance department of Log and Lumber Limited in Kumasi for giving me their support and full co-operation in the collection of the data for this work.

I am also thankful to all authors and research I quoted from directly and indirectly in this study

Finally I will like to express my sincere gratitude to Mr. Andrews Salakpi for his help during the compilation of data for this project.

May God richly bless you all.





## Abstract

In practice, if any finance manager is asked to list his or her biggest headaches, working capital management usually appears near the top of the list. It was against this backdrop that this study was conducted to examine the working capital management policy of Log & Lumber Limited to enable the managers to identify its impact as a universal indicator on the measurement of the performance of the firm.

The main objectives of the study were to examine the impact of inventory management, management of receivables, management of payables and cash conversion cycle; to analyze the trend in working capital needs of Logs & Lumber Limited (LLL), and to assess the financial performance of Logs & Lumber Limited (LLL)

The study was basically an explanatory and analytical and employed descriptive analysis.

Consequently twelve (12) employees all managers were used as the total sampling frame. Out of this number nine (9) were sampled and interviewed on the working capital policy of the company.

The fundamental findings of the work were that:

The company used conservative working capital approach to prepare the firm for all conceivable liquidity needs in order to have the lowest liquidity risk position having employed the aggressive working capital policy. The company recorded a negative cash conversion cycle. The company also invested much in stocks through credit purchases and this affected its profitability. It also had a weak credit management technique though it was an improvement upon the average collection period of 90

days. It was also shown that the company took the shortest time to meet its short term debts as and when they fall due.

Recommendations were that:

The Company should employ the conservative working capital management policy to reduce the negative net working capital if not to eliminate it.

The company should avoid investing so much in stocks. It should buy stocks only when they are needed. The company should set up a policy to monitor outstanding credits and a take decision in cases of slow payment.

The company should delay payments of its short term debts in order to make the needed profits. It should do well to reduce operational cost to improve its profitability.



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## CHAPTER ONE RESEARCH INTRODUCTION AND CONTEXT

### 1.1 Background to the Study

The management of capital relates to the finance and investment of non-human resources, that is, physical and monetary assets for the purpose of maximum benefit in terms of profitability (Hill, 1993).

However, investment and financing decisions are conveniently categorized into long term and short term. The latter is termed working capital management, working capital being defined as a firm's total investment in current assets irrespective of financing sources. Of interest in this research is therefore the area of working capital management, which generally encompasses short-term investment and financing decisions of firms.

In a perfect world, working capital management would not be necessary because there would be no uncertainty, no transaction costs, and no scheduling costs of production or constraints of technology. The unit costs of producing goods will not change with the amount produced. Firms would borrow and lend at the same interest rate. Capital, labour and product markets would reflect all available information and would be perfectly competitive, (Horne, 1986) In such an ideal business world there would be little need to hold any form of inventory other than a limited amount of goods in process during production. But such an ideal business assumes that demand is exactly known in advance, that suppliers keep to their due dates, production can be smoothed and orders executed directly without costs and delays. (Smith, 1980) There would be no need of holding cash for working capital other than for the initial costs, because it

could be possible to make the payment from every receipt of sales. There would also be no need for receivables and payables if customers pay cash immediately and the firm would also make its payments promptly.

However, problems of working capital exist because these ideal assumptions are never realistic and therefore working capital levels make a significant part of a firm's investment in assets and these assets have to be financed implying that investments may have benefits as well as costs.( Ben, 1987). Each of the working capital items (i.e. cash, receivables and inventories) helps in the management of firms in its own particular way. Cash is used to keep the firm liquid so that it is able to pay its short-term financial obligations as and when they fall due for payment and therefore it protects the firm from bankruptcy (Moyer, et al, 1995). Under investment in cash bears the danger of not being able to pay back both short-term and long-term debts when they are due. Every business needs also adequate levels of cash to maintain day-to-day operations. For instance it needs enough cash to pay wages and salaries as they fall due and enough to pay creditors to ensure its supplies. The different types of inventories are used to satisfy different purposes (Scherr, 1989, Stevenson 1993).

The benefits to firms arising from an increased volume of working capital, however, do not come without their own costs. Investment in working capital is expensive. The more funds are accumulated in working capital assets the more the costs of the investment. Over investment in cash, receivables and inventories ties-up capital and results in the opportunity costs of lost profits. Over investment in cash deposited in bank checking account results at paying service charges while depositing in a saving account does not generate large revenue. Over investment in receivables can result at

debts, which may not be collected. Over investments in inventories result at loss due to physical deterioration and obsolescence of the inventory items. Financing working capital investment with short-term debts (though it is cheaper compared to long-term debts) is also riskier for the firm, because short-term creditors give less time to pay back the loans. Therefore, the trade-off between the benefits and costs of holding the working capital investments and short term debts must be evaluated and managed.

## 1.2 THE PROBLEM STATEMENT

The level of working capital is a key factor in the company's liquidity position because a company must be able to generate enough cash to meet its short-term needs if it is to continue in business. Therefore, working capital management is a factor in the company's long term success: without the "oil" of working capital, the "engine" of fixed asset will not function. The greater the extent to which current assets exceed current liability, the more solvent a company is likely to be depending on the nature of its current assets. Working capital management has appeared to have been relatively neglected in the corporate world spite of the fact that a high proportion of business failures is due to poor decisions taken concerning the management of working capital of firms (Smith 1980). This research would therefore create the need for management in Logs & Lumber Limited to appreciate the importance of working capital and benefits to be derived from its effective management in today's competitive world of business.



### 1.3 THE OBJECTIVE OF THE STUDY

The objective of this research is to examine the working capital management policy of Logs and Lumber Ltd, and in particular:

- (i) To identify the working capital cycle.
- (ii) To assess the management of receivables of Logs & Lumber Limited.
- (iii) To assess the management of inventory of Logs & Lumber Limited.
- (iv) To assess the management accounts payable of Logs & Lumber Limited.

### 1.4 SIGNIFICANCE OF THE STUDY

Business is set up with a view to be in operation for an indefinite period of time all other things held constant. However today's global economic factors are causing business to become increasingly competitive and as a result of that firms need to find creative ways to be able to operate as efficiently as possible in order to stay in business. One of these global economic factors causing firms to be folding up is poor working capital management. This issue is seemed to have been overlooked in today's world of business. It is against this backdrop that this research is being conducted to:

- (1) Assist management of Logs & Lumber Limited in identifying efficient ways of managing the company's working capital.
- (2) Serve as a guide to policy makers in the corporate world who face the problem of managing their capital.

### 1.5 SCOPE OF THE STUDY

Logs & Lumber Limited as a timber firm has many branches in the country but time and cost would not permit me to capture all its branches. The study is restricted to

Logs & Lumber Limited, Kumasi Branch.

## 1.6 LIMITATIONS OF THE STUDY

This research experienced limitations. They included the study sample and financial constraints. Again due to financial constraints, only a limited sample was used, thus managers of logs & lumber Limited, Kumasi branch.

There was also a problem of willingness on the part of the workers to disclose information to the researcher.

## 1.7 ORGANIZATION OF THE STUDY

The study has been organized into five coherent chapters. The present chapter commences with the introduction, including: Background of the study, statement of the problem, objective of the study, and significance of the study. A review of literature on working capital, its definition, measurement and association with financial performance constitutes chapter two.

The third chapter focuses on the methods used in the study; it includes the population sample of the respondent and the procedure used in data collection. Chapter four constitutes analysis and summary of the results. The final chapter gives a brief summary of the research work findings, conclusions and recommendations and it is followed closely with bibliography and appendices.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 INTRODUCTION

Business firms are established by investments in the form of assets that can be classified on the basis of liquidity - as current or fixed. Firms finance the total investment in assets with debt and or owners' equity, the supply of which is limited.

The principles of financial management form the basis of managing investments and related financing with current debt, long-term debt, owners' capital contributions or retained earnings. The investment in current assets is a working capital and the related financial management approach is working capital management. (Horne and Wachowicz, 1998) Working capital management is defined here as a process of planning and controlling the levels of investment and financing current assets as well as related operations of purchasing and selling. (Stevenson, 1982) Specifically, working capital management requires managers to decide on what levels of current assets the firm will hold at any point in time and on how these current assets are to be financed.

Brealey et al (2008) state that the management of working capital is concerned with the overall liquidity position of the company and controlling the individual elements.

Maneval (2009) argues that working capital management involves the relationship between a firm's short term assets and its short term liabilities. the goal of working capital management is to ensure that a firm is able to continue in its operations and that it has sufficient ability to satisfy both maturing short term debt and upcoming operational expenses. the management of working capital involves managing inventories, account receivables, cash and accounts payables.



Pandey (1993) explains that working capital defined as the sum of stocks, accounts, receivable, cash and marketable securities, focuses attention on two aspects of current asset management-(a) optimum investment in current assets, and (b) financing of current asset. The net working capital being the difference between current assets and current liabilities is a qualitative concept. It indicates:

- (a) The liquidity position of the firm, and
- (b) The extent to which working capital needs may be financed by permanent sources of funds.

Ross et al (2007) define working capital as a financial metric which represents operating liquidity available to a business.

Proctor (2006) explains that working capital equates net current assets .i.e current assets less current liabilities. He stated the components of working capital as:

- (i) cash
- (ii) stocks
- (iii) debtors
- (iv) Short-term creditors.

According to Archer et al (1983) working capital management involves managing the level and mix of current assets and current liabilities and long term sources, van Horne (1988) indicates that "working capital management involves the administration of current liabilities. According to van Horne and Wachowicz (1992), the administration of current assets and the financing (especially current liabilities) needed to support current assets is the meaning of working capital management.

Kay et al (2009) explain that working capital relates to the short term management of a firm's short term assets and liabilities. For example inventory is considered a short term asset and accounts payable is categorized as short term liability that shows what

the firm owes to other entities.

This research divides the management of internal working capital into levels and operations. Levels refer to investments in working capital assets (cash, inventories, accounts receivable) and short-term financing instruments (payables: trade credit, bank loan and accruals). Operations include activities related to the purchase of materials and the sales of finished goods. It is worth noting here that, internal working capital management refers only to the levels and operations which are directly connected with the firm's external linkages (that is suppliers and customers).

## **2.2 Managing working capital investment**

### **General Considerations**

According to Moyer, et al (1998), the major policy issue encountered in the management of working capital is related to levels of investment and its financing. Therefore, considering first the main components of working capital investment and liquidity management, then continue describing the main issues of managing working capital investment and financing. The components of working capital investments are categorized in terms of liquidity and stability of balances. Stability of Balances On the basis of the stability of balances compared to changes in the volume of sales and production, current assets can also be divided into permanent and fluctuating. The balance of permanent current assets remains constant regardless of the change in sales volume or production capacity, while fluctuating current assets vary with a change in sales volume and production capacity. (Horne and Wachowicz 1998). Permanent current assets include the safety stocks of cash and inventories. They are often used to

meet the long-term minimum needs of investment in current assets. Their balance is constant over a longer period of time and is therefore comparable with the firms fixed assets because investments in permanent current assets remain within the firm. The main difference between permanent current assets and fixed assets is that permanent current assets constantly change in physical terms, while fixed assets do not (Horne and Wachowicz, 1998).

### **Managing Liquidity**

According to Moyer, et al (1998), firms have two goals - liquidity and profitability. Many types of costs are related to the excesses and shortages of working capital levels of investment and financing. Managing these costs can increase the profitability of a firm's operations. Firms have to determine the individual and joint impact of the levels of short-term investment and financing on the dual objectives of working capital management. These goals imply that decisions that tend to maximize profitability tend not to maximize the chances of adequate liquidity.

Conversely, focusing almost entirely on liquidity will tend to reduce the potential profitability of the firm. Liquidity is the ability to pay all expenditures and short-term debt obligations. Firms can remain liquid by either selling assets or borrowing. When liquidity is maintained by selling assets, the convertibility of assets into cash (or liquidity) matters. Assets in general have varying degrees of liquidity. For assets other than cash liquidity has two dimensions, (Horne, 1986): the time required to convert the assets into cash, and the degree of certainty to convert the assets into cash without loss. When liquidity is maintained through borrowing, there will be a trade-off between the interest costs paid to creditors and the income earned from the investment



in the assets financed from the borrowing.

Therefore, both too much and too little liquidity have costs (Yeager and Seitz, 1989).

Now considering the costs of keeping too much (costs of liquidity) and too little (costs of bankruptcy) liquid assets. Some of the most important signs of deteriorating liquidity are:

- a. An unexpected building in inventory (an increase in inventory conversion period)
- b. An increase in the firm's level of outstanding accounts receivable (an increase in the average collection period).
- c. A decline in the firm's daily or weekly cash inflows.
- d. Increased costs the firm is unable to pass on to its customers.
- e. A decline in the firm's net working capital, or an increase in its debt ratio.

Management can take the following steps to deal with liquidity Problems. (Pinches, 1990)

- a. Control and reduce investment in inventory.
- b. Re-examines and tightens up on credit and reduces the firm's level of accounts receivable.
- c. Increase short – term or long term debt, or issue equity.
- d. Control overhead and increase awareness of the need for effective asset management.
- e. Lay off employees.
- f. Reduce planned long-term (capital) expenditures Reduce/eliminate cash dividend

## Liquidity and Bankruptcy Cost

According to Yeager and Seitz, (1989), the cost of excess liquidity is the interest on credits and loans used to finance investment in liquid assets and opportunity cost or profit lost due to investing in less profitable current assets, compared to fixed assets.

The cost of too little liquidity is the cost of additional borrowing needed as well as the loss experienced when assets have to be sold too quickly and the damage done by a failure to meet payment demands which may end up in bankruptcy (so the bankruptcy costs). If a firm does not keep proper amounts of working capital, it will be forced to go bankrupt on technical grounds leading to liquidation, in which case the primary claimants of a firm are its creditors while investors of the firm's capital have a residual claim on the assets.

According to Horne (1986), the eventual liquidation and realization of assets into cash has two types of bankruptcy costs - out of pocket costs and interest costs. The direct or out of pocket cost are associated with the bureaucratic procedures of liquidating the non cash assets and distributing it to the claimants. These costs include the time that the management spends dealing with the creditors of the bankrupt firm, legal expenses, court costs and advisory fees. Interest Cost of bankruptcy is costs of compensating creditors' ex-ante. Horne (1986), argues that since creditors are primary claimants of firm's assets at bankruptcy, they charge the firm a default premium on the interest rate, which reflects the probability of the firm's bankruptcy. Grinblatt and Sheridan (1998) also add a third type - the indirect costs of bankruptcy, which is created due to a firm becoming financially distressed and close to bankruptcy

but which may actually never go bankrupt. These indirect costs include the losses due to the fact that the firm may be unable to get or give credit when demand for its products decreases. Therefore, liquidity decreases bankruptcy costs. However, investment in liquid assets has a cost of financing. Therefore, there is a trade-off between the benefits associated with liquidity and the cost of maintaining liquidity. Management can optimise this trade-off using investment and financing policy decisions ( Scherr ,1989).

### **2.3 Working Capital Management and Profitability- liquidity Risk Trade Off**

From the point of view of working capital management, firms have dual objectives, that is, maximize profitability and minimize liquidity risk. In this case risk as defined by Walker (1980) means, (a) risk of not maintaining adequate liquidity, (b) the risk of having too much or too little inventory to maintain production and sales and (c) the risk of not granting adequate credit to support the proper level of sales. Profitability has to do with the overall objective of owner wealth maximization. Liquidity on the hand has to do with ensuring that the firm is able to satisfy all its financial obligations and has adequate funding to carry on its long-term activities of the firm. Thus the liquidity goal is closely aligned with working capital management while the profitability goal reflects both short-term and long-term decision making. The difficulty with the dual objectives of profitability and liquidity is that, one tends to be a trade-off of the other.

In other words, decisions that tend to maximize profitability tend not to maximize the chances of adequate liquidity and vice versa. Moreover, the way in which working capital is managed can have a significant impact on both the profitability and liquidity



goals of the firm.

### **Optimum level of working capital Investment**

Moyer, et al (1998) argues that, there is an optimal level of working capital investment, which changes with the variability of output and sales that a firm must maintain. For a given level of output or sales there is certain working capital level that results in the highest profit. Other factors that affect the optimality of working capital include the variability of cash flows, the degree of financial leverage and the degree of operating leverage. The issue of profitability and liquidity risk trade-off is based on the argument that short-term investment and financing have opposing effect on liquidity and profitability. Investment in current assets though useful to achieve the objectives of liquidity, but it does not generate as much profit as investing in fixed assets. Financing with current liabilities though it is cheaper and therefore more profitable it is risky because it gives less time to pay.

In order to minimize liquidity risk and maximize profitability, management can have differing risk attitudes (Horne and Wachowicz, 1998), by comparing the levels of current assets against volume of sales or production. These are called “conservative”, “moderate” and “aggressive”. Conservative working capital management policy implies that at the given volume of sales or output the firm has a high level of current assets. The conservative policy prepares the firm for all conceivable liquidity needs and gives the lowest liquidity risk position.

However, at this level profitability will be low. Aggressive working capital

management policy implies that at the given volume of sales or output the firm has the lowest current asset level. Aggressive working capital policy exposes the firm to any conceivable liquidity risk and therefore gives the highest liquidity risk position. It is the riskiest and supposedly the most profitable working capital management policy. Moderate working capital management policy is, of course in between these two extremes. If other things remain the same, decreasing the levels of current assets held will increase potential profit.

However, profit increases only if the firm's investment in current assets can be reduced if the firm is still being able to properly support output and sales while it also is able to settle its short-term debt becoming due for payment. Hence, management should search for an optimal proportion between the level of current assets and the volume of output and or sales that result in the best optimal point in the profitability and liquidity risk tradeoff. To solve the problem of profitability and liquidity risk trade off, Smith (1980) suggests that parallel monthly forecasts of profitability and required borrowing be made. This Smith argues will have the benefit of making trade-offs between profitability and liquidity risk objectives of the firm, estimating the impact of certain working capital policies on profitability and liquidity risk trade-offs and reflecting the uncertainty of the future.

## **2.4 Cash Management**

### **2.4.1 The importance of cash management**

All companies use cash and bank balances. Cash is used to pay creditors for raw materials and other inputs .It is used to pay wages and salaries. This expenditure

results in the creation of finished goods which are sold to the firm's customers who eventually pay in cash. Cash is therefore essential to finance the working capital cycle. Cash is also used to acquire fixed assets which are written off over their estimated useful lives. Furthermore, cash is required to pay interest on loans, taxation and dividends to shareholders (Khan, et al 1999)

Other reasons for holding cash balances include (Beehler, 1978):

- a. Transactions – As already stated, firms use cash to finance working capital and fixed assets.
- b. Interest earnings – On a short – term basis cash balances can be placed on bank deposits or invested in government securities to earn interest. Loans can be made to subsidiaries, associated companies, and other companies.
- c. Precaution- Some firms holds a safety stock of cash to provide against unanticipated fluctuations in their ability to generate cash. We would expect this to be less likely to occur in those firms which have easy access to additional finance. Precautionary cash balance serves to provide a cushion to meet unexpected contingencies. Thus, the more unpredictable the cash flows, the larger the need for cash balances.
- d. Speculation-Firms hold very high cash balances view to taking advantage of speculative investment opportunities. Such cash balances are often justified in terms of their ability to finance mergers. Again, many companies have been acquired because they have poor levels of cash balances.
- e. Investment-Firms with cash surpluses can give more credit to customers thereby generating additional sales. They can undertake promotional exercise to increase sales to utilize unabsorbed production capacity. Cash balances can be used to provide loans to customers and make available lease finance to increase sales.



Firms with surplus cash balances can undertake additional investment in fixed assets and working capital and even acquire other companies for cash.

Cash management is therefore concerned with how a firm manages its cash levels and operations (cash collections and payments), cash investments and disinvestments, and cash borrowing and lending. According to Scherr (1989), cash management deals with determining the optimal level of cash, the appropriate types and amounts of short-term investments in cash as well as the efficient methods and controls of cash collections and disbursements. Because many transactions of a company involve the receipt or disbursement of cash, its efficient management has a great significance for the management's success in the process of achieving organizational objectives. Efficient cash management can be instrumental in preventing losses from fraud or theft, to maintain a sufficient amount of cash, to make necessary payments and to have a reasonable balance for emergencies. It also prevents unnecessarily large amounts of cash from being held idle in bank accounts that produce little or no revenues. Cash and short-term interest bearing investments are the firm's least productive assets. Unlike the firm's other liquid assets (inventories and accounts receivable), cash is not required for producing goods or services. When firms hold cash in currency and in non-interest bearing accounts they obtain no direct return.

## **2.5 Receivables management**

Credit sales create accounts receivable because firms give more time before their customers are required to pay. Allowing credit increases sales but it has also costs of managing accounts receivable and the possibility of bad debts. Therefore,

management needs to install control mechanisms over credit sale policies and credit customers. The controlling process is intended to detect deviations from policy and to provide signals of deviations from expectations. Some of the deviations may be due to uncontrollable random external factors but others may be controllable. So, the main objective of credit and accounts receivable control is to give signals when (non-random) deviations in sales, collection expenses, receivables turnover and bad debts occur (Scherr, 1989).

Firms need to compare the outcomes of credit sales policy and the trend in the balance of accounts receivable with what was estimated. In establishing policies regarding terms of sale and credit granting standards, management makes expectations on accounts receivable turnover and resulting bad debts. In order to control the collection of account receivable, the deviation from expected payment patterns has also to be observed. If expectations are not realized or there are deviations, it may signal problems like changing customer characteristics, inaccurate policy forecasts or improper policy implementations.

According to Scherr (1989), common signals include receivables ageing, days sales outstanding and average collection period. When a signal is detected, it is up to the managers to investigate and to assess the reason for the deviation. Managers must then take the necessary corrective action, which will vary with the cause of the deviation and which may include applying collection efforts and changing sales policies. A firm's credit policy consists of the two inter-related activities the granting of credit and the collection of receivables. Both of these aspects affect the composition of working capital. A more liberal credit policy implies higher levels of

credit but will also result in higher levels of accounts receivable which must be financed. More stringent collection policies imply a reduction in outstanding receivables.

Credit management decisions or policy variables according to Levy and Sarnat (1994) are:

- a. Credit period. This decision relates to the length of time for which the firm is prepared to grant credit to its customers.
- b. Credit instruments. Having decided to grant credit, the firm must also decide on the legal form it will take. Should a formal IOU be required or is a simple receipt sufficient?
- c. Credit standards. Next, credit standards have to be set. This involves the decision as to which customers constitute 'good' or 'bad' credit risks. It also requires the stipulation of a method for determining their credit-worthiness either on the basis of past performance, the analysis of their financial statements, or external reports of banks and / or credit agencies.
- d. Collection policy. A policy for monitoring outstanding credits must be established, and a decision must be reached in cases of slow payment.
- e. Incentives. The firm must decide on the extent of the financial (or other) incentives which will be offered for prompt payment.

### **Collection Policy**

Once the firm decides to sell its goods on credit it should establish control policies to check if any debtor is falling behind schedule, in which case the firm will have to



make collection efforts. Collection policy refers to obtaining payments of past-due accounts. Receivable collection management begins by developing an information system for monitoring outstanding receivables in order to check if customers are taking more time. In case any credit customer is found to be overdue for more than the receivables monitoring criteria established, different types of collection efforts can be applied (Scherr 1989).

A firm can use the following procedures for customers that are overdue and may refuse to grant credit in the meantime: First: send a letter informing the customer of the past due status of the account. Second: make a telephone call to the customer. Third: employ a collection agency. Fourth: take legal action against the customer. Fifth: a personal visit. Sixth: a reminder to the salesperson that commission is based on cash received not invoiced sales. Seventh: restriction of credit.

## **2.6. Inventory management**

Inventory management is the art of managing the amount of stock held in various forms of inventories within a firm in order to efficiently and economically meet the demands for products. It includes the principles and techniques for deciding what, when and how much to purchase and sell as well as how and where to store. Inventory management supports the achievement of organizational objectives by attaining the desired levels of customer service at a minimum cost of inventory carrying and ordering.

Watson et al (2007) also explain that inventory management is an integral part of a successful business. Inventories consist of goods, raw materials and finished products each of these translates into for the business owner. The key to profitability of is a carefully balanced inventory.

## Objective of Inventory Management

Due to the large size of inventories maintained, firms commit a considerable amount of funds to inventories. Therefore, in order to avoid unnecessary investments it is absolutely imperative to manage inventories efficiently. Neglecting the management of inventories will jeopardize a firm's short and long-term profitability. Inventories are the least liquid of all current assets; it should therefore provide the highest yield to justify investment (Block and Hirt, 1992). Both excessive and inadequate inventories are not desirable.

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Therefore, the main objective of inventory management should be to determine and maintain optimum level of inventory level that lies between these two undesirable situations related to meeting two conflicting needs. First, to maintain a large size of inventory for efficient and smooth production and sales operations. Second, to maintain a minimum investment in inventories in order to lower ordering and carrying costs and to maximize profitability. In line with these objectives Kaen, (1995) argues that each inventory type serves different purposes.

Overall, in line with that of cash there are three motives for holding inventories – the transactions motive, the precautionary motive and the speculative motive. The transaction motive emphasizes on the need to maintain inventory in order to facilitate smooth production and sales operations. Inventory held for precautionary motive guards against the risk of unpredictable changes in inventory price, demand and supply factors. The speculative motive refers to carrying inventory in order to take advantage of unpredictable changes in inventory price. To be effective, management has to apply a system to keep track of inventory on hand and on order, knowledge of

lead times and its variability, a reliable forecast of inventory demand and reasonable estimates of inventory holding, ordering and shortage costs (Stevenson, 1982).

### **Planning Inventory Requirement**

According to Scherr, (1989), inventory planning helps to match 'inventory requirements to sales and production needs. It also helps to know inventory acquisition and usage during lead-time, quantity on hand and on order as well as the levels of safety stock. There are different methods of planning inventory needs including managerial opinion (or judgmental) and time series data (Stevenson, 1982). Stevenson, contends that forecasts based on opinion relies on the analysis of subjective inputs obtained from various sources, such as, opinions of sales staff, managers and executives as well as consumer surveys. Forecasts on time series data are based on observations taken at regular intervals over a period of time (daily, weekly, monthly etc) and are made on the assumption that future inventory demand can be estimated from past. The accuracy of inventory planning depends on whether the forecast is made in conditions of relative certainty or uncertainty ( Scherr, 1989).

#### **2.6.1 Managing Working Capital Finances**

Any working capital investment needs to be paid at the time of acquisition (cash purchase) or at a later time (credit purchase). This ability to make cash payments or the assumption of credit is a source of financing. Due to many factors (the firm being a high liquidity risk, culture, linkages), the availability of credit as a source of financing may or may not be an alternative to the management. Considering now the financing dimensions and start with the main components.



## **Component of Working Capital Finances**

Working capital investments can be financed with internally generated or externally acquired financing alternatives. Some firms solve their financing problems by borrowing or securing their current assets (external financing) and others by selling their current assets (internal financing). When firms borrow on the strength of their current assets, the major sources of short-term finances include trade credits, accruals, short-term bank loans, collateral papers, commercial papers, and factoring accounts receivable (Horne, 1980).

## **Trade Credit Financing**

Firms would rather sell for cash than on credit, but competitive pressure forces most companies to offer trade credits. Unlike credit from financial institutions, trade credit does not rely on formal collateral but on trust and reputation (Fafchamps, 1997). Trade credits create the accounts payable. Accounts payable is a form of short-term financing common to all businesses with a credit purchase policy. It originates when buyers are not required to pay for goods upon delivery but are allowed a short deferred period before payment is due, which may or may not include discount for earlier payment. During this period the seller of the goods extends credit to the buyer.

There are three types of credit: open account, promissory note payable and trade acceptance (Horne, 1980). The most common type is the open accounts arrangement, where the seller ships goods to the buyer along with an invoice that specifies the goods shipped, the price, the total amount due and the terms of sale. Promissory note



payable is a statement where debtor writes a note or letters. It is required if the creditor has not yet developed full confidence on the creditworthiness of the debtor or the value of the transaction is too large for an open account and therefore the risk of loss is very large. Trade acceptance is a supporting letter written by a bank addressed to a creditor guaranteeing a debtor's credibility with regard to a specific transaction. It is usually used in international transactions.

Traditional financial management texts suggest that credit managers would take note of five Cs of credit- character, capacity, capital, collateral and conditions to evaluate the probability of default.

**A. Character** – these attempts to measure the customer's willingness to pay. According to Levy and Sarnat (1994), it raises the fundamental question of whether or not he will try to honor his promise to pay. Most managers consider this issue crucial. If the answer to this question is strongly negative, it is unlikely that credit will be granted. The track record of the customer is very crucial in this respect.

**B. Capital** – This refers to the customer's ability to pay, i.e. His or her financial position. Here an attempt is made to determine whether the customer has sufficient financial resources to meet the proposed obligation.

**C. .Capacity** – This is about the legal powers of the company to seek redress in court in case of default of payment by customers.

**D. Collateral** – which is simply the assets which the customer can offer to secure his debt?

**E. Condition** refers to the customer's vulnerability to changes in business conditions, or other specific events. That is the effect of economic trends on the customer's position.

## Short Term Loan Financing

The short and long-term financing sources have differing effects on the trade-off between profitability and liquidity risk (Block and Hirt, 1992). For the purpose of working capital financing, the profitability of short and long-term debt is considered from the point of interest cost. The higher the interest cost the lesser the profitability and vice-versa. From lenders point of view a long-term loan has in general higher interest charge compared to a short-term loan due to the risk involved in lending for a longer period of time. Short term loans are more risky from borrower's point of view, because of the problem to get cash in the short-term, and the higher variability of interest rates compared to that of the long-term loans (Moyer et al, 1998). To the borrower, long term loans are more expensive but less risky, while short-term loans are more risky but less expensive.

Therefore, management must get an optimum point between the two. Empirically, Fisman (2001) showed short-term credit; particularly supplier credit is positively correlated with capacity utilization because firms lacking credit face inventory shortages leading to lower capacity utilization. Petersen and Rajan (1997) argue that even in the United States, with extremely well developed financial markets, trade credit is the largest single source of short-term financing. (Fisman 2001) particularly claims in developing countries where formal lenders are limited; trade credit plays an even more significant role in funding firm's activities.

## Short Term Debt Mix

The Financing Logic Is That, Temporary Current Assets Are Financed With Short-Term loans and the permanent current assets with long term debt or equity capital. However, the actual investment and financing mix match-up depends on

management's approach towards risk and profitability (Horne et al 1996). Based on the interest cost and liquidity risk, management can use maturity matching, conservative, or aggressive approaches to financing working capital investments.

### **Maturity matching**

The maturity matching approach to working capital considers the maturity structure of the firm's assets and liabilities. The maturity structure of the firm's liability is made to correspond exactly to the life of its assets by matching current assets life and balances it with that of current liabilities, so that each asset is offset with a financing instrument of the same maturity. Temporary current assets will be financed with current liabilities while the permanent portion of current assets and fixed assets are financed with long-term debt and equity capital. This financing approach suggests that apart from the current portion of long-term debt, a firm would need no short-term borrowings when sales are low. As the firm goes to seasonal asset needs, it borrows on the short-term and later it pays off the borrowing with the cash released by the decrease of current assets when sales are again low, (Horne and Wachowicz, 1998).

### **2.6.2 Managing the Purchase and Cash Payments Operations**

Working capital management on operations concerns purchases, sales and related activities, namely cash payments and cash receipts. The argument here is that by managing the sales and purchase operations efficiently we can effectively increase the benefits and reduce the costs of working capital levels and maximize a firm's value creating potential. (Pandey, 2004) The purchasing and sales policies, like credit purchasing and payment as well as credit selling and collection policies also have



other direct effect in a firm's external value chain.

For example, a policy of speeding-up collections and slowing down payments may have negative effects in the value chain and on the confidence and trust building with transaction partners. (Bhattacharya, 2001)

### **2.6.3 Purchase Operations**

Purchases affect the inventory of materials. How much and at what cost materials have to be purchased will depend on various factors like cost of purchasing the materials, the cost of transportation, the discounts and the costs of holding. So, firms have to use materials purchase budget to plan the cost, source and timing of their purchase. The materials purchase budget depends on the management's inventory policy. The amount of materials to be purchased is based on the available inventory of materials at the beginning of each period, the production requirements proper procedures and the inventory at the end of each period. Management also has to apply of purchasing materials. It must specify who should initiate the purchase requisition and who should evaluate the purchase order and shipments. Here we give less emphasis to the discussion of purchase management because it is the other side of sales management.

### **2.6.4 Cash Payment Operations**

The firm has to slow-down cash disbursements and pay debts as late as it is consistent with maintaining its credit standing with suppliers so that it can make the most efficient use of the money it already has. Slow down cash payments Some of the



Under the under zero base account system agreement will be reached with the bank such that one main or master disbursing account services all other subsidiary disbursing accounts (payroll, payables etc.). When payroll is cleared at the end of each day, the bank automatically transfers just enough funds from the master account to each disbursement account to just cover the checks presented. So, a zero ending balance is kept in all accounts except for the master account. This reduces the cash balance in the master account by eliminating idle balance from all subsidiary accounts. Overdraft is a check written for an amount in excess of funds on deposit. The check overdraft will be honoured by the bank according to a prearranged set of rules and credit limits (Kaen, 1995). The bank extends a loan to the writer of the check for the amount necessary to cover the payment. So, the firm does not hold cash balances; it simply borrows whatever cash it needs for transaction purposes from the bank and pays the market interest rate, as transaction costs on borrowings. Paying the float refers to managing the net float, (also called “play the float”), that is the difference between the firm’s bank balance and its book balance, which is a result of delays between the time checks are written and their eventual clearing by the bank. It is possible to use this net float, if a firm can have a negative cash balance on its books and a positive bank balance, because checks just written by the firm may still be outstanding. If the size of the float can be estimated, the bank balances can be reduced and the funds invested to earn a positive return.

**Remote or Controlled Disbursing** – Under this type of disbursement only banks with remote branches or correspondent banks or those that were located in a remote section of the country were used. Rather than giving local operating units payment authority,

all payments are centralized through one disbursement bank.

## **2.7 Managing Cash and Sales**

### **2.7.1 Sales Operations**

There is a close relationship between sales and working capital policies such as credit terms and standards, finished goods inventory levels and cash collection policies. Relaxing credit terms and standards and holding an appropriate level of finished goods inventory can enhance the possibility of more sales for the firm. A sale is made on cash or credit. When a firm sells on cash, it requires its customers to pay at the time they buy their purchases, in which case the firm will have no problem of cash collection.

However, cash is limited so buyers would like to take time before they pay. Therefore, the buyers who are willing to pay cash are only those who get no alternative choice. Credit sales give more time to buyers to pay and that makes buying from a firm that extends credit interesting and sales might increase. However, it has its own costs of management and risk of making bad debts. Concentrating on the credit sales more than on buying on cash because comparatively it needs more managerial skill. Moreover, with credit sales, management has to set alternative sales terms, standards and it has to evaluate customers' relations.

#### **The Case of Credit Sales**

Like the product's price, quality and service, credit granting policy determines the products attractiveness and affects its sales volume and profit. If credit granting is

properly made it can enhance the firm's performance, sales and profitability (Moyer, et al, 1998). Trade credit policies have a number of important functions (Scherr, 1989): (a) for small firms: to minimize the effects of market imperfections. (b) For sellers: to guarantee the quality of their products and to overcome information problems with a buyer. (c) For buyers: to increase and control the purchase of goods. Credit sales policy and management of accounts receivable deals with decisions related to terms of sale, credit-granting standards, credit analysis and control of accounts receivable. A term of sale is concerned with the credit period, the cash discount and type of credit instrument. Credit standards refer to the criteria used to screen credit applicants. Credit analysis is the use of a number of devices and procedures to determine the probability of a customer payment to proposed credit sales. Credit collection and control refer to the establishment of policy and control procedures for collecting the cash when the credit is due. According to Kaen, (1996), before a firm grants credit to its customers, it has to establish a credit policy, the establishment of which involves three stages. First: establishing the terms of credit sale policies. Second: formulating credit standards, which will be used to analyze and evaluate individual applicant's credit worthiness. Third: establish accounts receivable collection and control policies.

### **2.7.2 Cash Collection**

Almost every transaction of a business enterprise will eventually result in either the receipt or disbursement of cash. A firm can create value to shareholders by managing Cash collections. Managing cash collections requires speeding-up and controlling cash Collections.



## **Speed up Cash Collection**

It earns income and uses the money sooner, for investment or paying bills and save future expenses. The methods that can be used to speed up the cash collection process include earlier billing, a lock-box system and concentration banking earlier billing is used to expedite the preparation and mailing of sales invoices internally and shorten the processing floats. It also accelerates the mailing of payments from the customer to the firm and shortens the mail float. Lock box system is used to reduce the time during which payments received by the firm remain uncollected and to reduce the deposit or processing float.

Concentration banking refers to firms, which use one central bank account instead of many small accounts in many banks. Firms that use a lock-box networking system and those receiving funds over the counter may normally have bank deposit balances at a number of banks. It is advantageous for the firm's cash concentration if all of these funds are held in one central location or concentration bank.

### **2.8 Performance Management of Working Capital Levels and Operations**

Working capital management requires managers to decide what quantities of cash, near cash assets, account receivable, and inventories the firm will hold at any point in time and must decide how these current assets are financed. Managers have also to plan and evaluate whether actual performances are as per their expectations.

There are techniques of measuring and evaluating a firm's performance in managing working capital operations and levels. Some of these performance measurements relate to financial and others non-financial criteria. According to Rappaport (1986) the



non financial performance indicators include customer satisfaction and product quality, while the financial accounting related performance indicators, according to Scherr, (1989) are based on ratio analysis. For the purpose of this study we emphasize on the later because they are to be derived from the financial statements of firms and it is possible to make inter-firm comparisons. Dividing the financial accounting related performance indicators into those that help us to study working capital investment composition (asset structure), financing (liquidity and leverage) and operations (efficiency of activities and overall profitability). The interpretation of the financial statement ratios can be made by comparing ratios of the same firm of different years or ratios of the same year of different firms.

### **2.8.1 Nature and Importance of working capital**

The working capital meets the short-term financial requirements of a business enterprise. It is a trading capital, not retained in the business in a particular form for longer than a year. The money invested in it changes form and substance during the normal course of business operations. The need for maintaining an adequate working capital can hardly be questioned. Just as circulation of blood is very necessary in the human body to maintain life, the flow of funds is very necessary to maintain business. If it becomes weak, the business can hardly prosper and survive. Working capital starvation is generally credited as a major cause if not the major cause of small business failure in many developed and developing countries (Rafuse, 1996). The success of a firm depends ultimately, on its ability to generate cash receipts in excess of disbursements. The cash flow problems of many small businesses are exacerbated by poor financial management and in particular the lack of planning cash requirements (Jarvis et al, 1996).

Baker (1991) outlines five reasons why working capital is important:

- a. Working capital comprises a large portion of the firm's total assets. Although the level of working capital varies widely among different industries, firms in manufacturing and retailing industries often keep more than half of their total assets in current assets.
- b. Working capital represents those assets that are most manageable. The financial manager has considerable control in managing the level of current assets and current liabilities.
- c. Working capital management consumes the largest portion of the financial manager's time. The financial manager devotes more time to daily operational decisions involving working capital management than any other area.
- d. Working capital management directly affects the firm's long-term growth and survival. This is due to the fact that higher levels of working capital are needed to support production and sales growth.
- e. Working capital management directly affects the firm's liquidity and profitability. An appropriate mix of working capital components is needed to maintain a firm's liquidity. Without sufficient liquidity a firm may be unable to pay its liabilities as they become due. The amount of working capital also affects a firm's profitability because current assets must be financed and financing costs money.

## **2.9 The Management of Working Capital**

While the performance levels of small businesses have traditionally been attributed to general managerial factors such as manufacturing, marketing and operations, working capital management may have a consequent impact on small business survival and growth (Kargar and Blumenthal, 1994). The management of working capital is

important to the financial health of businesses of all sizes. The amounts invested in working capital are often high in proportion to the total assets employed and so it is vital that these amounts are used in an efficient and effective way.

However, there is evidence that small businesses are not very good at managing their working capital. Given that many small businesses suffer from undercapitalization, the importance of exerting tight control over working capital investment is difficult to overstate. A firm can be very profitable, but if this is not translated into cash from operations within the same operating cycle, the firm would need to borrow to support its continued working capital needs. Thus, the twin objectives of profitability and liquidity must be synchronized and one should not impinge on the other for long. Investments in current assets are inevitable to ensure delivery of goods or services to the ultimate customers and a proper management of same should give the desired impact on either profitability or liquidity. If resources are blocked at the different stage of the supply chain, this will prolong the cash operating cycle. Although this might increase profitability (due to increase sales), it may also adversely affect the profitability if the costs tied up in working capital exceed the benefits of holding more inventory and/or granting more trade credit to customers.

Another component of working capital is accounts payable, but it is different in the sense that it does not consume resources; instead it is often used as a short term source of finance. Thus it helps firms to reduce its cash operating cycle, but it has an implicit cost where discount is offered for early settlement of invoices.



### 2.9.1. Review of Previous Studies

Although working capital is the concern of all firms, it is the small firms that should address this issue more seriously. Given their vulnerability to a fluctuation in the level of working capital, they cannot afford to starve of cash. The study undertaken by (Peel et al., 2000) revealed that small firms tend to have a relatively high proportion of current assets, less liquidity, exhibit volatile cash flows, and a high reliance on short-term debt.

The recent work of Howorth and Westhead (2003), suggest that small companies tend to focus on some areas of working capital management where they can expect to improve marginal returns. For small and growing businesses, an efficient working capital management is a vital component of success and survival; i.e both profitability and liquidity (Peel and Wilson, 1996).

They further assert that smaller firms should adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. The study of Grablowsky (1976) and others have showed a significant relationship between various success measures and the employment of formal working capital policies and procedures. Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance (Walker et al, 2001). Given these peculiarities, Peel and Wilson (1996) have stressed the efficient management of working capital, and more recently good credit management practice as being pivotal to the health and performance of the small firm sector. Along the same line, Berry et al (2002) finds that SMEs have not



developed their financial management practices to any great extent and they conclude that owner-managers should be made aware of the importance and benefits that can accrue from improved financial management practices.

The study conducted by Mee (1998) revealed that 60% enterprises suffer from cash flow problems. Narasimhan and Murty (2001) stress on the need for many industries to improve their return on capital employed (ROCE) by focusing on some critical areas such as cost containment, reducing investment in working capital and improving working capital efficiency. The pioneer work of Shin and Soenen (1998) and the more recent study of Deloof (2003) have found a strong significant relationship between the measures of working capital Management (WCM) and corporate profitability. Their findings suggest that managers can increase profitability by reducing the number of day's accounts receivable and inventories. This is particularly important for small growing firms who need to finance increasing amounts of debtors.

Mauritius provides a good case study for this paper as it looks at the small and medium sized enterprises operating in the manufacturing sector of a small island developing state. Most of the previous studies on working capital management and financial management of small firms have focused on the US, UK and some other developed countries like Belgium and Australia.

## **2.10. Conclusion**

Firms are created to generate revenues for their owners in the long-term. However, the long-term value is a sum-total of short-term values. Working capital management

takes care of the short-term value creation. Working capital management requires managing the short-term levels of investment and financing as well as operations of purchasing and sales. Managing working capital levels refer to the investment in cash, inventories and receivables as well as short-term financing sources such as trade credits and bank loans

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## **CHAPTER THREE**

### **THE RESEARCH METHODOLOGY AND PROFILE**

#### **METHODOLOGY**

##### **3.1 INTRODUCTION**

This chapter deals with the methods used and the root of obtaining the needed information it identifies the population and sample techniques for the purpose of the study. It also discusses the techniques employed for data collection and analysis and procedure in administering and ascertaining the information. The study would adopt qualitative research approach using empirical and statistical data. This approach would be deemed effective in making the study accurate and authentic. It would also involve the use of primary and secondary data and finally the organizational profile.

##### **3.2 Population and Sampling Technique**

The population for the study was made of employees of Logs & lumber Ltd .The total population was made up of twelve (8) managers of the company. And out of this number nine (9) were sampled and interviewed on the working capital policy of the company.

The sampling frame was determined after an in-depth analysis of Logs and Lumber Limited was done. This involved ascertaining the various financial activities carried out in the various departments of the company as well as their functional managers and appropriate sample frame was then determined and used for the study. Logs and Lumber Limited, Kumasi branch was chosen for the study due to availability and easy accessibility to data. Also the existence of various branches would enable the outcome

of this research to be generalized for all its branches.

### **3.3 Tools of data collection**

The tools that would be used for this study would be interviews-telephone and face-to-face. The qualitative data would be collected using interviews.

#### **3.3.1 Interviews**

An interview is a purposeful discussion between two or more people (Khan and Cannell, 1957).the use of interviews helps the researcher to gather valid and reliable data that are relevant to the study. In this research work purposive sampling technique was used to conduct both telephone and face-to-face interview on the working capital management policies in Logs & Lumber Limited for the nine (9) managers.

This was done for rational analysis of views and for other confirmatory responses given by respondents who work at the finance department and other functional areas. The use of interviews in this study was deemed appropriate because it afforded the researcher the opportunity to get so close to the interviewees. One was interviewed each day for nine working days. This method was used because it gave an equal chance to the respondents being selected.

#### **3.3.2 Observation**

Observation of physical structures, social differences, behavioural action and symbols provide important information for posing central questions (Mikkelsen, 2005).the researcher intends to use various methods of observation in order to collect qualitative data concerning the topic and suggest ways by which they can be interviewed. In this



regard situational observation would be used as a tool in the data gathering process. This afforded the researcher the opportunity to observe some of the day to day operation of the company.

On any visit to the company, issues concerning the subject matter were looked into with keen interest. Notes about things observed were taken immediately. this was done because the researcher did not want to forget any vital information about the work. Respondents would also be asked for clarification on things which are not clear to the researcher after observing them.

### **3.4 Data collection and Analysis**

#### **3.4.1 Primary and Secondary data collection**

Both primary and secondary research data would be analysed and used in this research work. Primary data would include information gathered from the respondents by the researcher himself through interviews and observation.

The secondary data would also include information gathered from financial statements of the company from 2002 to 2007.

#### **3.4.2 Data Analysis**

Various data analytical method was used in assessing the working capital of Logs and Lumber limited. These included financial statements, and operational reviews of the institution for the last six years. Financial analytical methods involving common size balance sheet, profit and loss account, income surplus account and financial ratios such as liquidity and current ratios were used to assess the working capital management of Logs and Lumber limited. These were put into graphical

demonstrations for the purpose of assessing the working capital management policies and financial performance for this six years period of operations and most especially to determine the performance of the Company. The data gathered from the interviews were analyzed and incorporated in the ratios of the Company.

It is important to emphasize that despite attempts to obtain meaningful information from ratios analysis they have their own limitations and may not suffice for interpreting the company's accounts and thus other very relevant items of information were considered. These included comment in the Chairman's and Directors reports on currents and future development of the company's performance, extraordinary items in the profit and loss account, the source and application of funds and other features such as the company's taxation position.

### **3.4.3 Organizational Profile**

Logs & Lumber Limited was incorporated as Private Limited Liability Company on 17th June 1967 and commenced business on 10th July 1967. It was a sawmill purchased from Messrs. Anglo African Timbers. The Directors initiated the installation of Veneer and Plywood Mills, which were completed in 1972. The expansion programme continued till 1999 when the company became the leading producer and exporter of wood products in the country.

The company provides gainful employment for Expatriates and Ghanaians through its activities of operations with a current labor force of about 1,500. Usually, it provides numerous job opportunities for a wide range of professionals across the globe and

thus making our company a blend of multicultural professionals. The company also provides opportunities for students from tertiary institutions both local and international to sharpen their skills and tailor them into the job market.

Logs & Lumber Limited plans to increase production in Lumber, Moldings, Veneer and Plywood for both domestic and international markets so as to take advantage of the increasing government efforts to stimulate downstream processing of timber and also to promote sustainable forest management in Ghana.

The company's Business Concepts are as follows:

- 
- a. Increasing its market share of timber products on both the domestic and international markets through increase in production so as to take advantage of the increasing government efforts to stimulate downstream processing of timber.
  - b. Providing gainful employment for Ghanaians and Expatriates
  - c. Contributing to the Gross Domestic Product
  - d. Contributing to export earnings
  - e. Promoting sustainable forest management and environmental conservation
  - f. Contributing to the socio-economic development of rural communities especially the forest fringe communities.

It is envisaged that Logs & Lumber Limited would continue to lead in the production and export of Sliced Veneer and other wood products by delivering premium quality wood products, and involving businesses and consumers worldwide in our efforts to promote economic development in the country. The aim at becoming a sub-regional standard pacesetter for responsible forest management through its re-forestation project. As part of the company's social responsibilities it pays five percent (5%) of

our share of stumpage fees to communities where it extracts its timber as enshrined in the FSD regulations. The company also renders various degrees of assistance to communities, churches, voluntary organizations, District Assemblies etc. These services range from renovation of schools, markets, Community Centers, rehabilitation/construction of roads and palaces to provision of drinking water, football pitches amongst others. These services do not only improve the living conditions of the beneficiaries, but improve their relationships with the company and foster a unity of purpose thus facilitating the work of the company in all its operational areas.

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The shares of the company formally stood as follows:

William John Bitar	69%
John Bitar	26.9%
Ghassan John Bitar	3.3%

During the years, shares have changed hands and Mr William John Bitar is presently holding 100% shares of the company.

The company increased its level of production by the installation of a new panelling line, which was completed in July, 2004 worth over \$2000, 000.00 (Two Million US Dollars). The aim of the project was to process waste lumber for the Export market.

Products of the company which have contributed to the success story of the company over the years include Lumber, Sliced veneer, Mouldings and finger joints, Rotary veneer.

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## CHAPTER FOUR

### 4.0 ANALYSIS OF DATA

#### 4.1 INTRODUCTION

This chapter presents analysis, results and discussions on Logs & Lumber Limited working capital management policy. The general performance of Lumber Logs & Lumber Limited and its working capital management policy is discussed in this section with reference to the detailed financial statements in Appendix I- V. It indicates extracts from Balance Sheet 2002– 2007 (Amount in millions of cedis), Statement of Income Surplus Accounts 2002– 2007 (Amount in millions of cedis) and from Profit and Loss Accounts 2002 – 2007 (Amount in millions of cedis).

#### 4.2 Results and Discussions of Logs & Lumber Limited

##### 4.2.1 Performance Evaluation of working capital Investment

This is an important aspect of working capital management because of the stagnant investment in fixed assets and a reflection of the lack of managerial empowerment over the management of investment and financing. The low production capacity experienced by the Company also caused this high current asset investment.

Also in analyzing the composition of each working capital element in the total current assets, the financial manager explained that from 2002 to 2004 company had put in place a mechanism to buy stock as and when it was needed. However in 2005 and 2006 this policy changed necessitating a rise in those years' working capital investment.

The analysis also indicates that most of Logs and Lumber Limiter’s current assets were tied up in receivables, while the investment in inventory and cash was much less compared to the receivables. This suggests a defective receivables collection policy. It could also be observed from appendices I-V that the firm’s working capital investment composition is generally the lowest in inventory and highest in receivables while the investment in cash was also declining. This implies that working capital management has contributed negatively to the net cash flows of the firm.

### 4.3. Working Capital Cycle

Table 1. Working Capital Cycle

Years	debtor days	stock days	creditor days	cash conversion cycle
2002	79 days	55 days	54 days	80 days
2003	102 days	80 days	58 days	124 days
2004	88 days	48 days	21 days	115 days
2005	97 days	130 days	17 days	210 days
2006	99 days	97 days	18 days	195 days
2007	103 days	133 days	17 days	139 days

The working capital cycle (WCC) can be viewed statistically as the balance between the income generating and resource purchases of the company (Pass and Pike 19984). The Accountant stated explicitly that the positive cash conversion cycle was as a result of few stocks which had been kept in the Company’s vault resulted in more funds to the company. Again the officer explained that the favourable creditors’ days

given to the company also accounted for the positive cash conversion cycle.

The head of finance claimed that the positive WCC was as a result of the low interest on loans (overdraft) which the company was servicing on its debts made cash available to the company.

This made it possible for the company to pay its creditors /suppliers as their debts fell due. Again the results emanating from the above positive days statistics made it clear that the company is efficiently managing its working capital. This stems from the fact between 2002 and 2005 favourable creditors days were given by creditors to the company to settle its short term debts. Although the creditors' cash balances were seemingly high, there were profits in those years.

#### **4.3.1. Cash Conversion Cycle and Working Capital**

According to (Moyer 1995 ), this represents the interaction between the components of working capital and the flow of cash with which a company can use to determine the amount of cash needed for any level of sales. It is the period of time between the outlay of cash and raw materials and the inflow of cash from the sale of finished goods, and represents the number of days of operation for which financing is needed. The longer the cash conversion cycle, the greater the amount of investment required in working capital.

On how the company was able to manage its cash balances well, the Accountant replied that the company prepared a cash budget to monitor the inflow and outflow of cash receipts and disbursement. The company used the sales and annual budgets as limiting factor in the preparation of the cash budget. The cash budget was prepared on

monthly basis.

4.4 Accounts Receivable Management

The composition of Logs &Lumber Limited Debtors constituted those that the Company had sold logs and lumber to and had not paid for the period under consideration that is from 2002 – 2007. Since the Company was mainly involved in the timber processing, the chunk of the debtors were from the customers who used the facility on credit such as the construction Companies, Mining Companies and others who often patronize the products.

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Debtors Collection Period

Debtors Days or Debtors Ratio =  $\frac{\text{Debtors}}{\text{Credit sales}} \times 365$

According to Watson and Head 2007 .The value of credit sale is usually not available and it is common for sales or turn over to be used as a substitute. The debtor’s day gives an average period of credit being taken by customer if this is compared with a company’s allowed credit period, it can give an indication of the efficiency of debtor administration.

The Debtors Day is calculated below

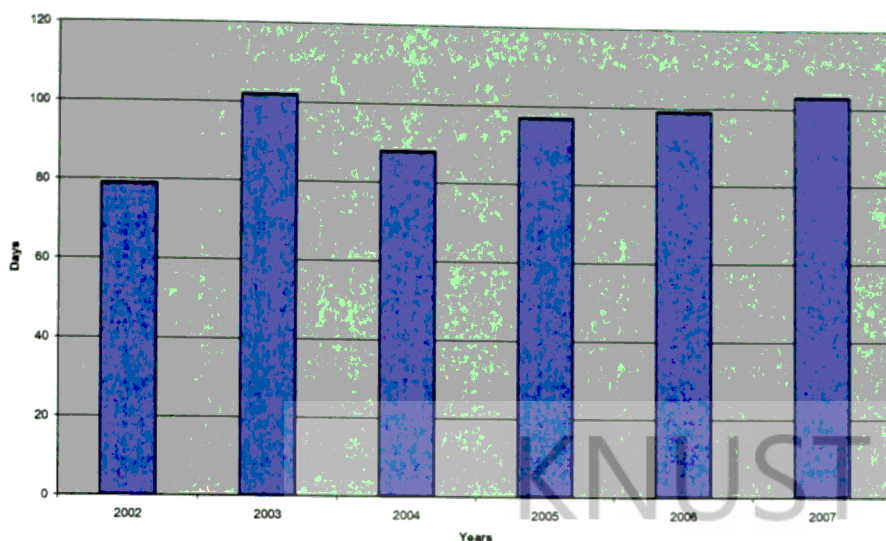
Table 2. Debtors’ Days

Years	Debtor Days
2002	79 days
2003	102 days
2004	88 days
2005	97 days
2006	99 days



2007

103 days

**Figure 1. Debtors' Days**

The Accountant stated that on the average it took the company at least ninety days (90) to collect the funds from the debtors after the contract had been delivered. Comparing the credit customer period to debtor day stated above none of the years was able to meet the stated credit customer period.

For instance in 2002 the debtors day was 79 days and comparing it to 90 days, the credit customer day improved by 11 days. In 2003 the period fell short by a wider margin of 12 days, again in 2004 the company met the targeted credit period by 2 days, but there was a rise in the credit customer period by 7 days in 2005, 9 days in 2006 and finally 0 days in 2007.

The general manager for operations said even though the company policy on debt collection was 90 days, additional days were given to their clients to settle their indebtedness. Most of the clients were government institutions and it took them a long time to settle their debt and that explained why there were huge variations in the debt collection periods.

Again comparing the average debtor day's period with the industry period of 30days if the company had maintained it in any of the years the company would have been better off because more funds would have been made available to the company.

The debtor day periods stated above indicated that the Company was not managing the debt administration period efficiently.

Another implication was that the Company would have very serious financial crises because most of the customers were not meeting the debt period making it impossible for the company to obtain sufficient funds needed to successfully run the business profitability. Another problem which the company is likely to face is high bad debt rate.

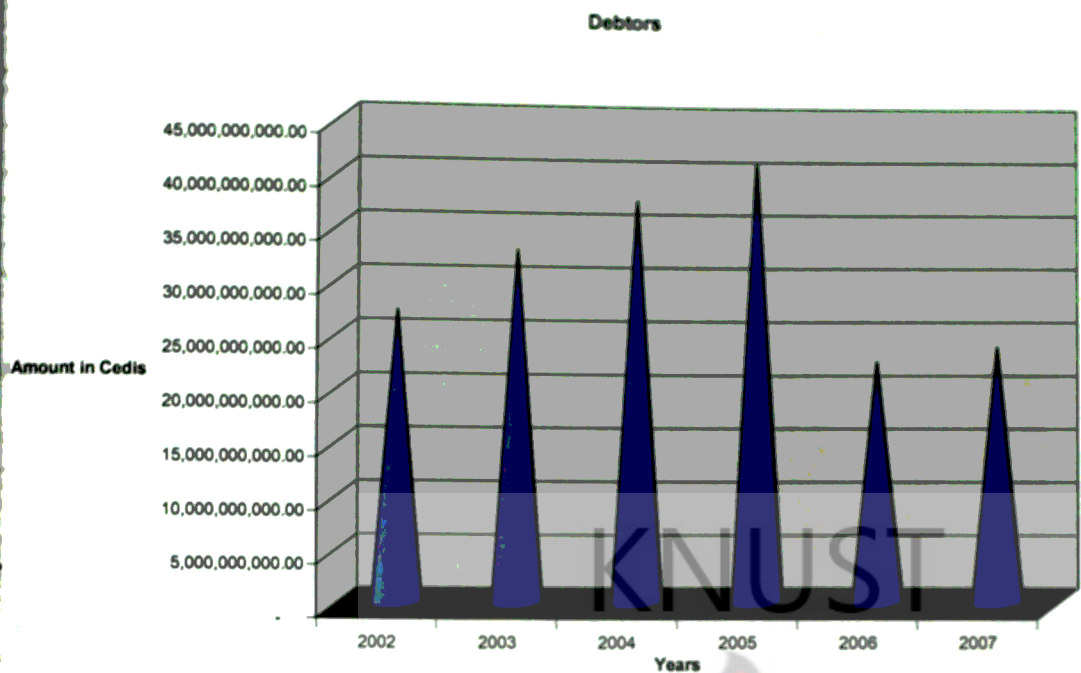
**Total Debtors of Logs & Lumber Limited**

**Table 3. Debtors**

Year	Debtors (¢)
2002	27,346,011,806.00
2003	33,030,214,500.00
2004	37,657,849,452.00
2005	41,343,997,167.00
2006	45,617,594,903.00
2007	24,126,660,000.00
Total	186,221,412,925.00



**Figure 2. Debtors**



The table and the graph depict the amounts of debtors which the Company had recorded from 2002 to 2007. The highest debt asset was in 2005 which was ₦41,343,997,167.00, followed by 2004 which recorded ₦37,657,849,452.00, in 2003 the debtor figure was ₦33,030,214,500.00 and 2002, 2006, and 2007 it was ₦27,346,011,806.00, ₦22,716,680,000.00 and ₦24,126,660,000.00 respectively. The total debt for the period under consideration was ₦ 186,221,412,925.00. It is important to minimize the level of Debtors at all times, since it is one of the key factors that influence cash flow into a business.

**4.5. Inventory Management**

Most of the things that constituted the inventory of the Company Logs and Lumber Limited include sliced veneer, mouldings. From the activity ratio calculated. (see appendix iv ) the stock turnover days was 55 days in 2002, 80 days in 2003, 48

days in 2004, 130days in 2005, 97 days and 133 days in 2006 and 2007 respectively.

Figure 3. Stocks Days

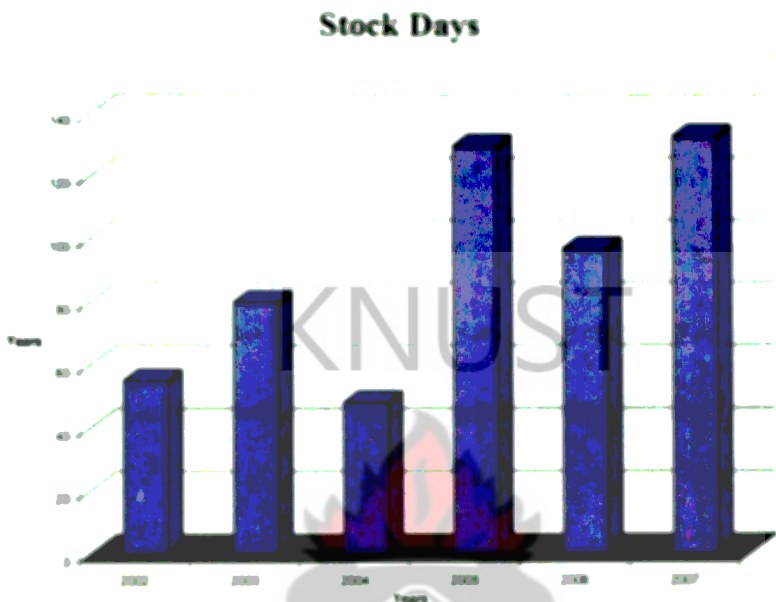
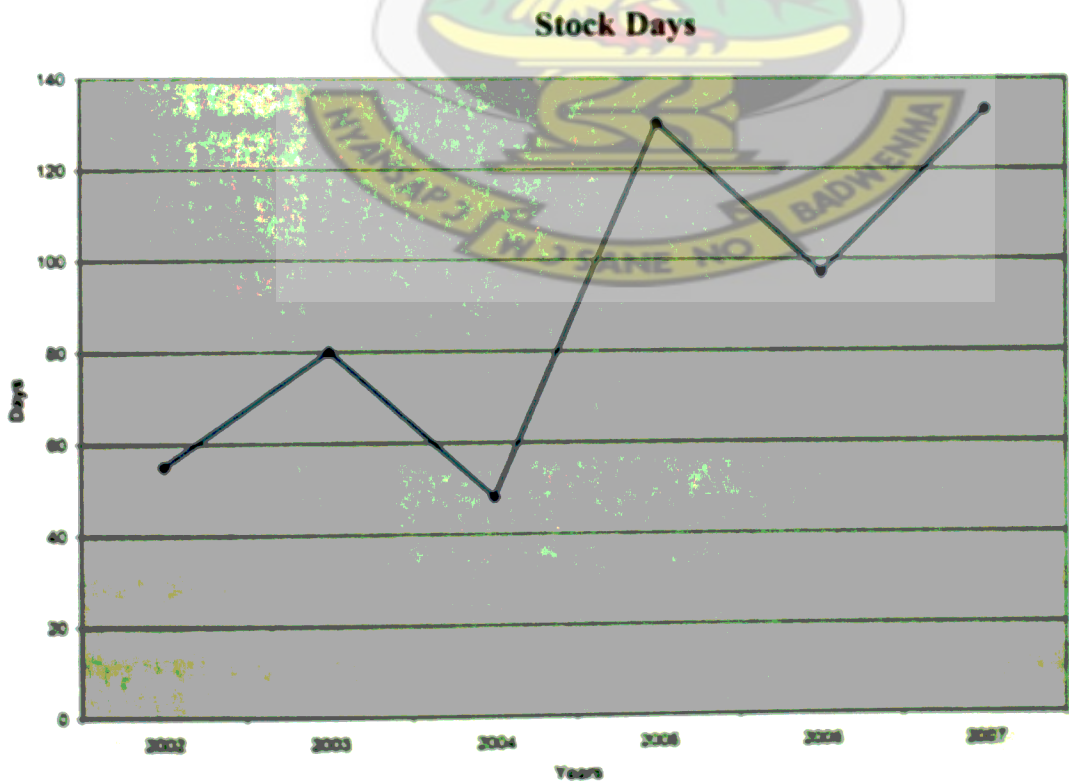


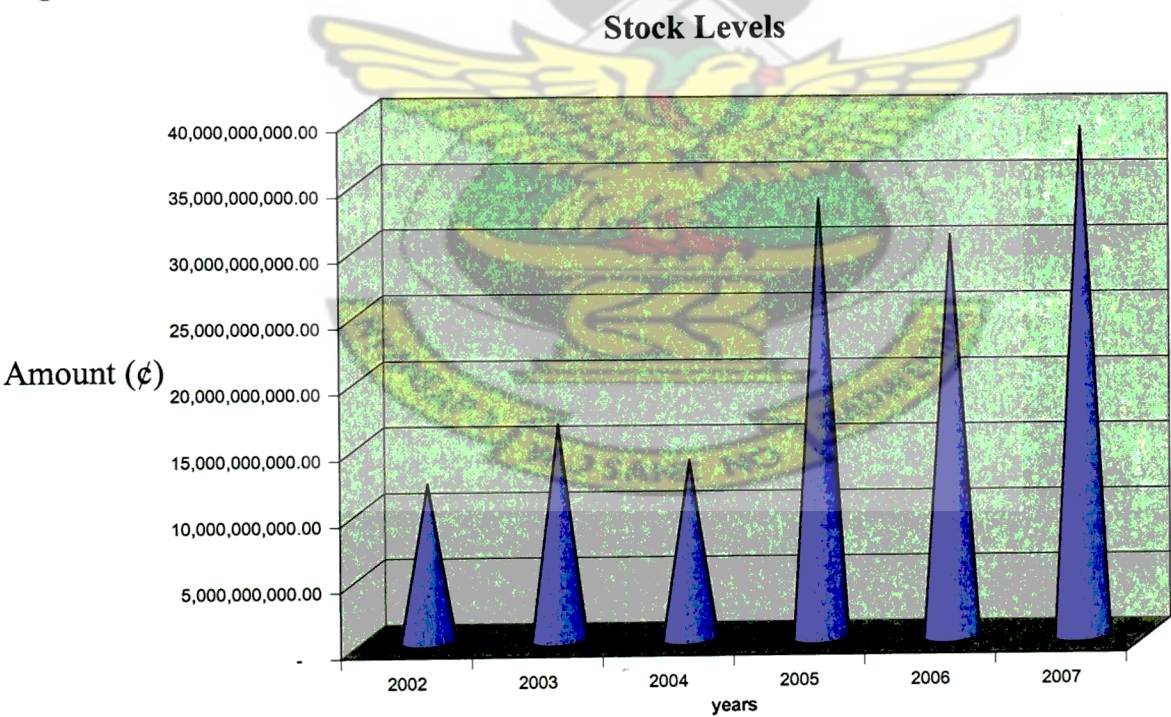
Figure 4. Stock Days





As depicted by the graph in 2002 and 2003 it took the company an average of 55 and 80 days to convert the stock into sales .And according to Watson and Head, the shorter the stock day's ratios, the lower the cost to the company holding stock. Going by this statement in the year 2002 and 2004 the company had the lowest period of stock turn over indicating that in those years the company recorded a boom in sales. And also the reason for the high level of 133 days stock level in 2007 indicated that the company was making the highest working capital .But for the rest of the years the figure ranged between 130 to 97 days in 2005 to 2006 which was the average period for the company holding stock. To buttress the issues raised above the marketing manager and the accountant confirmed that the company recorded the best sale period in 2002, 2003, and 2004.

**Figure 5. Investment in Stocks**



The hectograph depicts the amount of stocks which were held in the company's vaults before they were disposed or sold to the customers. In 2007 the company had the least level of stocks of ¢ 3,885,794,000.00, but 2005 recorded the highest stock level of ¢ 33,489,247,076.00 followed by 2006 ¢30,683,654,907.00 whilst ¢16,406,751,322.00

¢13,650,473,129.00, ¢ 11,964,705,495.00 were respectively recorded in 2003, 2004, and 2002.

In an interview with the accountant of the company he said the reason for the high stock level in 2005, 2006 and 2007 was that Ghana had won the bid to host both the International Fair on Timber Products and 2008 African Cup of Nations and for strategic reasons the company decided to produce more lumber for construction of new stadium and the renovation of existing ones so as to sell and make more profit.

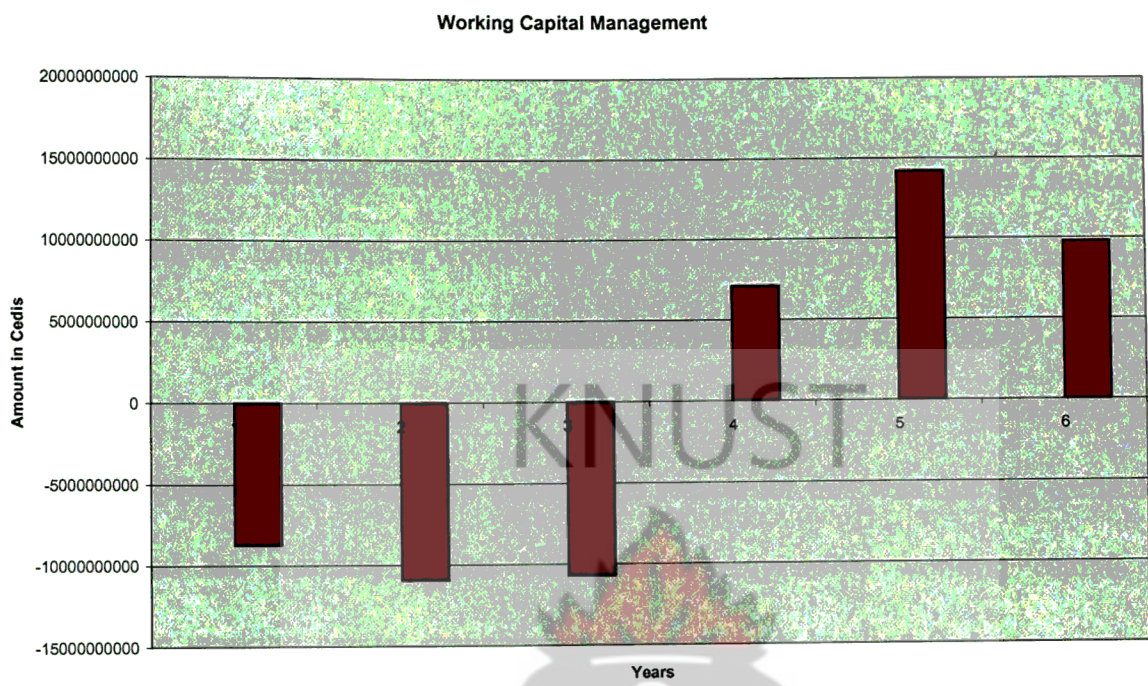
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However that dream of selling more and making more profits fizzle out due to low demand of the products by the public during the fair and this accounted for the huge stock figures in 2005, 2006 and 2007.

Since the Company recorded the highest stock level in 2005 it indicated that Logs Lumber & Limited had more stocks in that year meaning much of the company's funds was tied up in stocks leading to high holding cost and more cost on suppliers or creditors. The best level of stock however cannot be discussed due to insufficient information.

4.6 Working Capital Management.

Figure 6. Working Capital Management



From the chart above it can be deduced that Logs & Lumber Limited had a negative net working capital of ¢ (8,751,382,837.00) in 2002. Again in 2003, it declined to ¢ (10,980,321,558.00) and a further decline of ¢ (10,722,031,581.00) in 2004. The Finance manager explained that during this period the Company maintained a minimum level of current assets in the form of stocks and other components of working capital but it then decided again to invest more in current assets by purchasing more stocks and investing more in other items of working capital which far exceeded the stock levels of the company in those previous years. This accounted for the improvement in net working capital in the last three years.

The Warehouse manager further stated the reason for positive working capital that was recorded from 2006 to 2007 as that the demand for logs and plywood which



constituted the main stock of the company was very high so the company purchased more than necessary and this made the company to have more stocks piled up at the ware house. This was the best and the implication was that Logs and Lumber limited had cash and was able to pay the creditors as they fell due.

Again, it could be inferred from the table above that Logs and Lumber Limited in 2005 had adopted conservative working capital management policy that is how come the company was able to record a higher net working capital of ₵ 7,136,039,341.000, even though it had declined in 2004 to ₵ (10,722,031,581.00) the impact was not much as compared to the last two years. The reason for this was that the company had changed the working capital policy from Aggressive working capital to Conservative working capital management policy which implied that at any given volume of sales or output, the firm had a high level of current assets. The conservative policy prepared the firm for all conceivable liquidity needs.

In an interview with the general manager in-charge of operations, he reiterated that the decline in the working capital was as a result of the few stocks that the company purchased in 2002 and 2004 with the anticipation of avoiding failures in market demand for the products in both international and local markets.

#### **4.7. Accounts Payables Management.**

Logs & Lumber Limited main creditors were suppliers and service providers who rendered services or supplied items of goods to the Company, and other institutions the company had an outstanding balance with as at the time of the preparation of the final accounts.



According to Fisman 2001. This ratio shows the average time taken for suppliers of goods and services to receive payment.

The Creditor day ratio is calculated as  $\frac{\text{Trade Creditors}}{\text{Cost of sales}} \times 365$

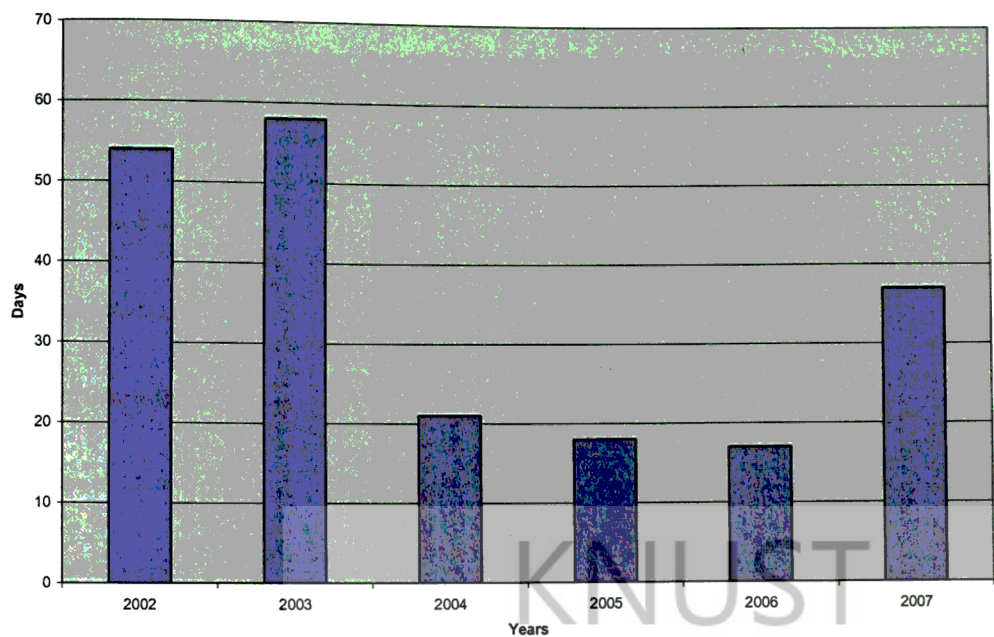
Table 4. Creditors Days

Years	Creditor Days
2002	54
2003	58
2004	21
2005	18
2006	17
2007	37

The table shows the Credit days of Logs & Lumber Limited from 2002 to 2007.

Detail analyses of the figures in the table are enumerated below.

Figure 7. Creditors Days

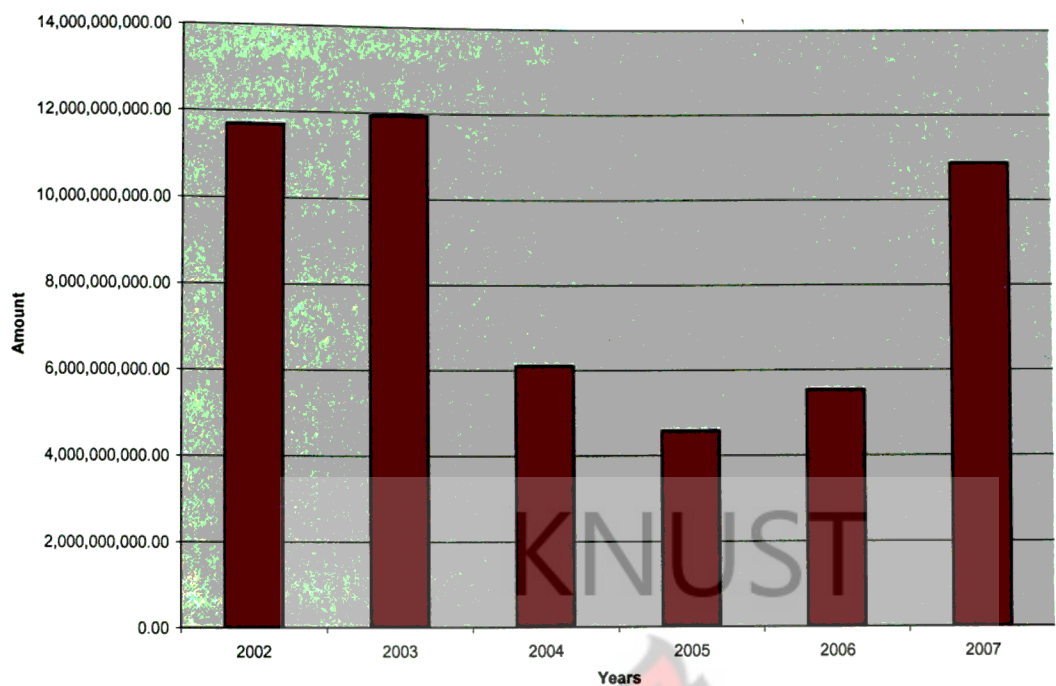


As indicated above, on the average it took the company 17 days to settle its debts with suppliers in 2007 which was the shortest period the company settled its creditors. The longest period it took for the company to settle its suppliers was 58 days that was in 2003 and incidentally that was the period where the Company recorded the highest profit in its operation. This shows that the more the Company delayed in the settlement of debts the more funds would be available for it to run the operations of the business.

Table 5. Accounts Payables

Years	creditor (¢)
2002	11,712,004,631.00
2003	11,949,356,899.00
2004	6,119,214,310.00
2005	4,585,904,892.00
2006	5,540,172,831
2007	10,868,220,000 .00

**Figure 8. Accounts Payables**



From the table and the graph above, it is seen that the Company had very high debt toll of ₦11,949,356,899.00 in 2003 but then the Company recorded profits (see appendix II), having recorded a debt toll of ₦11,712,004,631.00 in 2002. These huge creditors figure made the Company to record a negative net working capital of (₦8,751,382,837.00) and (₦10,980,321,558.00 and ₦10,722,031,581.00 in 2002, 2003 and 2004 respectively. However the figures recorded for the creditors were reduced in 2004 to ₦8,213,119,144.00 and to ₦4,585,904,892.00 in 2005 respectively. A further reduction for creditors were recorded in 2006 of ₦5,540,172,831.00 but with a further rise in 2007 ₦10,868,220,000.00. The Finance officer said that from 2002 to 2004 the company had fewer funds to make more purchases from different suppliers and therefore had to buy on credit. He also stated that the company had embarked on the construction of a new Head office within the same period and that explains why it took the company longer days in settling its short term debts in those years and hence those huge creditors figures.



However in the subsequent years (i.e. 2004 to 20057) the company was able to pay its short term debts in a relatively shorter period of time hence reduced creditors' figures. Comparing the debtors' figures and the debtors' collection period with the creditors' figures and the creditor's payment period, one could say that, the company would find serious liquidity problems.

To this, the finance officer answered in affirmative but hinted that, because of the goodwill the company has with both suppliers and lenders, the company is always able to get funds as and when it becomes necessary. He continued that, the huge debtors' figures in the financial statement is not a bother to the company at all, because, management knows, once customers have bought goods on credit, they would surely pay for them.

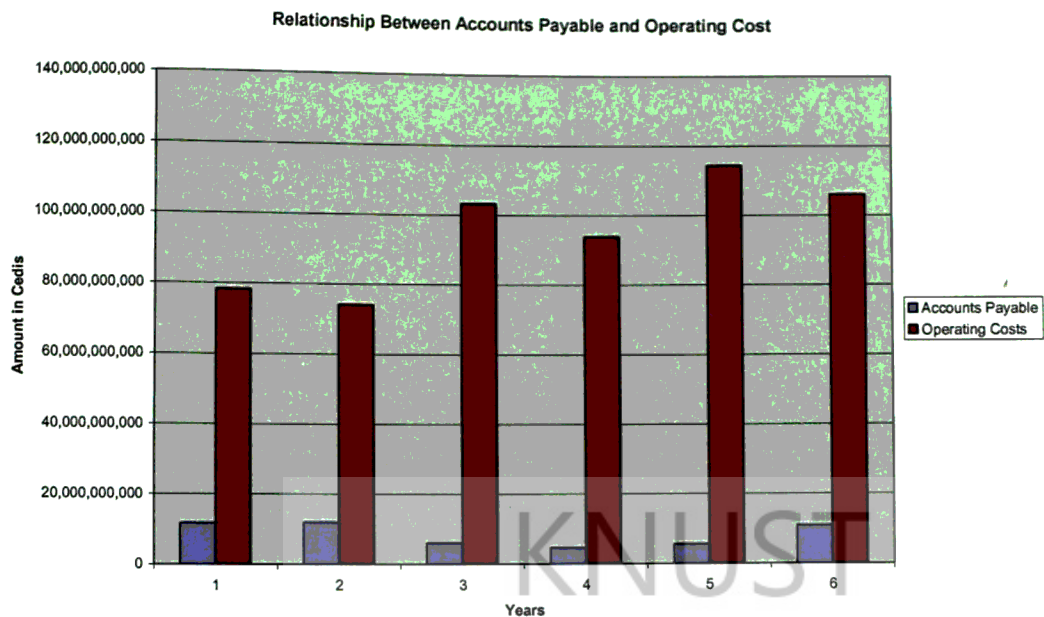
4.8. Relationship between Accounts Payable and Cost of Sales

Table 6. Relationship between Accounts Payable and Cost of Sales

Year	Accounts Payable	Operating Cost
2002	11,712,004,631	78,412,741,675
2003	11,949,356,899	74,087,084,940
2004	6,119,214,310	103,285,148,879
2005	4,585,904,892	93,926,402,322
2006	5,540,172,831	114,301,484,290
2007	10,868,220,000	105,925,500,000



Figure 9. Relationship between Accounts Payable and Operating Cost



There was huge difference between the Accounts payable and the operating cost of the company for the period under consideration. (2002-2007) from the table and the graph above, it is obvious that the Company recorded the highest Operating cost figure in 2006 ¢114,301,484,290 as against creditors figure of ¢ 70,869,352.00. This creditors figure was however the lowest in the years; these resulting in a positive net working capital of the company for that particular year. In this period too there was excess of income over expenditure The Least of the operating cost and the highest of accounts payable was recorded in 2005 and 2003 where an amount of ¢93,926,402,322 and ¢11,949,356,899 were recorded respectively.

One observation from the data above is that from 2003 to 2007 the figures of accounts payable began to decrease while that of operating cost kept on fluctuating. The most significant thing is that, in all those years, the company recorded growth in profits and net current assets, except 2004 when working capital was negative. The management accountant said the operating cost of the company included sawmill operations, ply

mill operations engineering and foreign subscription all of which had a direct relationship with the accounts payable for example the foreign subscription was the terminal dues which the company had to pay to the foreign business agency. So as the operating cost rises the accounts payable falls giving an indirect link between them..

4.8.1 Liquidity Ratios

Table 7. Liquidity Ratios

liquidity Ratios	2002	2003	2004	2005	2006	2007
current ratio	0.81 times	0.82 times	0.83 times	1.1times	1.2 times	2.4 times
Quick ratio	0.11 times	0.74 times	0.62 times	0.6 times	0.55 times	0.57 times

4.8.2 Current Ratios

This ratio measures a company’s ability to meet its financial obligation as they fall due. It is often said that the current ratio should be around two (2) but what is normal will vary from industry to industry. Going by the golden rule, all the figures in this ratio should be compared to number

It is obvious from the table above that from 2002 to 2004 the Company had current ratios of 0.81, 0.82 and 0.83which were far from the normal of 2. The current assets were very much lower than the current liabilities by 0.81in 2002. In this case Logs and Lumber Limiter’s current assets were very much lower than the current liabilities by 0.81 in 2002. The ratio maintained almost the same level of ratio of 0.82in excess of current liabilities in 2003. Comparing it to 2, it indicates that the ability of the



company to meet its short-term financial obligations fell short by 0.82.

Again in 2004 the current liability to current asset ratio equalled 0.83. the current liabilities exceeded the current assets by 0.83 times and comparing it to 2 it fell short by 0.83. In 2005 the ratio figure was 1.1 times and comparing it to 2002, 2003 and 2004 ratios there was an improvement though it still fell short of the normal. It must be stressed that in the years 2002----2004, the Company had negative current ratios in current assets over current liabilities. Despite all these there were profits for each of the periods. However in the subsequent years the company had positive current ratios with the adoption of conservative working capital management policy. This reflected in growth in terms of net profits. In 2006 it was 1.2 times indicating that current assets were higher than current liabilities. Again in 2007 it showed a positive ratio of 2.4times. This means that the Company had tremendously improved on its short term finances.

#### **4.8.3. Quick/Acid Test Ratios**

This ratio compares liquid current assets with short term liabilities. A common rule of thumb should be close to One 1.

In 2002, the quick acid test ratio showed a ratio of 0.1 in excess of current liabilities over current assets. This in no way came close to the standard level of 1. In 2003 it was 0.7 times again in excess of current liabilities over current assets worsening the liquidity position of the company. Again it fell short by 0.6 in 2004 because the Company recorded 0.6 times of current liabilities over current assets. The ratio began to improve in the last three years. In 2005 it was 0.6 times, in 2006 it was 0.5 and

again 0.5 times in 2007. This indicates that the Company has serious liquidity problems and would therefore find it extremely difficult to meet its short term financial obligations when they fall due.

### 3.0 Introduction

The financial manager said that with the coming years the liquidity position would improve as certain measures were being put in place to arrest the situation. He reiterated that the overall working capital management would play a pivotal role on value creation particularly in increasing sales by managing cash, receivables, inventory, purchase of raw materials and trade payables with a view to decreasing costs. He said this could help to achieve both the short and long term objectives of the company.





## CHAPTER FIVE

### SUMMARY CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This section of the study draws an exposition on the light of the findings and it bring to the fore the important of working capital management practices observed through the research undertaken at Logs and Lumber Ltd covering the Six year period (2002 – 2007)

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#### 5.1 Summary of Findings

This aspect of the research work will dwell on the main objectives of the study which are looked at in the areas of working capital cycle, management of receivables, working capital management policy, management of inventory and management of payables.

##### Working Capital Cycle

The company's working capital cycle was impressive because it showed positive results over the periods from 2002 to 2007. 2003 2007 recorded the longest cash conversion cycle periods of 124days, 115days, 210days, 195days and 139days respectively. The best cash conversion cycle took place in 2002 where the company was able to convert a cedi of cash disbursements into a cedi of cash inflow within a period of 80days. However in 2002 to 2004 the company recorded a negative net working capital. The working capital cycle notwithstanding showed an encouraging performance (positive days) throughout the six years as a result of low creditors payable days.

### **How Logs & Lumber Limited Manages its Receivables**

Comparing the Company's credit customer period to debtor days, none of the years (2002—2007) meets the stated credit customer period of 90 days apart from 2002 and 2004. This indicated that the Company was poorly managing the debt periods.

### **How Logs & Lumber Limited Manages its Inventory**

In 2002, 2003 and 2004 the company had the lowest period of stock turnover 55days, 80days and 48days respectively. This indicates that in those years the company recorded a boom in sales. However there was a high holding stock cost for the other periods from 2005-2007. This implied that Logs & Lumber Limited current assets were tied up in receivables and inventories. This was reflected in the cash conversion cycle in those years.

### **Working capital Management Policy of Logs & Lumber Limited**

From 2002 to 2004, Logs & Lumber Limited adopted Aggressive working capital management policy where a minimum level of current assets was held. As a result of this, the company recorded negative net current assets. The reason was that the company was fast converting its stocks into sales. The net effect of this practice was that the amount held in current assets reduced in relation to the current liabilities as the company had to buy more on credit basis to meet the increased in demand for their products.

However from 2005 to 2007, the company changed its working capital management policy to conservative where a high level of current asset investments was made. During these periods the firm recorded positive working capital. The reason for this

was that the firm in the previous years had bought more stocks which it was unable to sell all.

The little the company was able to sell did not bring in enough cash because the firm had to sell them on credit basis. This culminated in increase in the amount of receivables in 2005 and 2006 hence the positive working capital. However the most significant thing that happened was that both methods showed positive net profits before tax for those years.

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### **Management of Accounts Payables**

The company invested little in stocks between the periods 2002 and 2004. During those periods the creditors figures surprisingly went up. The finance officer said that the huge outstanding balances with the suppliers were not due to huge investment in stocks but due to other services received from other providers.

The investment in stocks between 2005 and 2007 increased more than double what were recorded between 2002 and 2004. The huge investment in stocks however did not reflect in creditors figures in those years as those figures showed a reduction.

### **5.2 Recommendations**

After carefully examining the working capital management policy of Logs & Lumber Limited, I make the following recommendations based on the objectives of the findings.



## **Working Capital Management and Working Capital Cycle**

The management should adopt the conservative working capital management policy if it wants to effectively manage its working capital. The reason is that the method promises positive net current assets-working capital.

### **Management of Receivables**

Since the Company was having it difficult to retrieve funds from the customers, it will be prudent for the management to engage the service of a factor who will take the funds on behalf of the Company. Or the Company can also use the cash sales strategy but then give preference to loyal customers by giving them discount.

Also credit standards must be set to know which customers constitute “good” or “bad” credit risks.

The company must also determine the credit worthiness of customers either on the basis of past performance or external reports of banks and/ or credit agencies.

Again, a collection policy must be set for monitoring outstanding credits and a decision must be taken in cases of slow payments.

### **Accounts Payable**

The management should try as much as possible to delay payments if possible utilize the boost trapping strategy of doing business so that the company will always have enough working capital to transact the relevant business.

The company should as a matter of necessity rotate suppliers to obtain the best possible credit terms. The financial manager should regularly prepare an age list of creditors to ascertain a list of suppliers who take the maximum time to collect debt.

The company should also adopt the following; refuse to pay other than on statements, refuse to pay other than on invoices.

I finally recommend that this research work is not enough to address the problems facing managers in the corporate world. Therefore extend a hand of invitation to individuals and other corporate bodies to conduct research into the problem so as to find a lasting solution to it.

### **Inventory management**

The Company should not purchase too much stock as this will tie up the working capital in stock and also increase other liabilities. If possible they should adopt Just in time (JIT) control method so that stock will be procured as and when they are needed.

The company should encourage financial and production managers to review on a regular basis the level of investments in raw materials, work-in-progress and finished goods with a view to considering the following actions:

- a. Lowering the level of investment in stock, work- in progress and finished goods for any level of cash flow, output and sales.
- b. Elimination of certain sales items.
- c. The sub contraction of certain items or components.
- d. A price reduction to clear low activity lines.
- e. Immediate delivery for exclusive customers
- f. Establishment of optimal reorder levels for raw materials.

### **5.3 Conclusions**

The conclusion of the research is centred on the core objectives which the study seeks to achieve. This includes the cash conversion cycle (CCC), management of receivables, management of inventory, working capital management policy and the management of account payables of Logs & Lumber Limited.

#### **The cash conversion cycle (CCC)**

The company recorded positive cash conversion cycle through the period under consideration (2002-2007), this is a clear indication of how well the company is converting a cedi of cash payments into a cedi of cash inflow. However this development needs further improvement.

#### **Management of accounts receivables**

The debtors day period policy was weak because none of it for the years meets the company's stated credit customer's period of 90 days besides what was recorded in 2002 and 2004.. The indication is that the company is not managing its account receivables efficiently. Management must therefore improve upon it in the coming years.

#### **Inventory management**

Between the periods 2002 and 2004, the company had the shortest stock turn over days. This was reflected in high net profit before tax figures for those years. However from 2005 to 2007 the stock turnover days went up. This did not however affect the profit before tax for the period. It is therefore an indication of efficient inventory management.



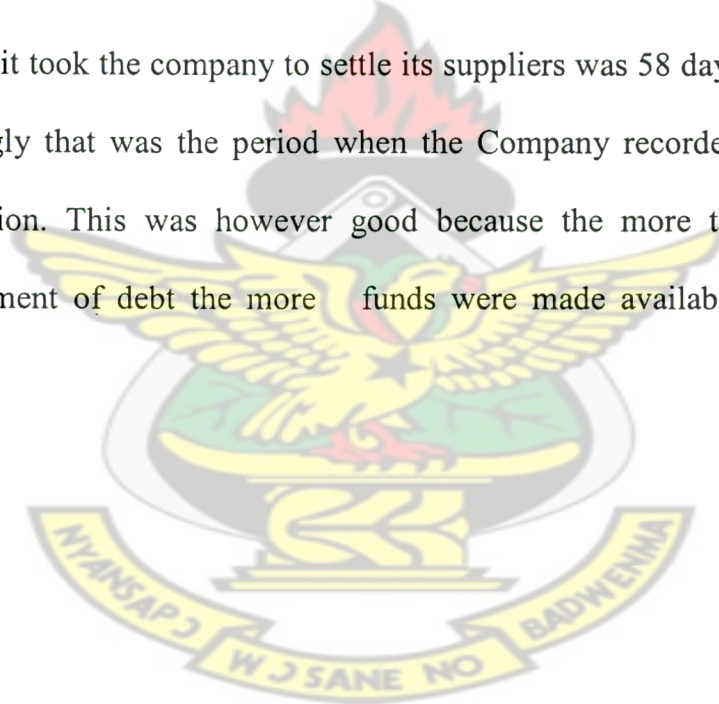
## **Working Capital Management Policy**

The company used aggressive working capital management policy from 2002 to 2004 when a minimum level of investment in current assets was made. This led to negative net current assets in those years. The net current assets(working capital) began to show positive signs when the company changed from the aggressive working capital management policy to conservative working capital management policy from 2005 to 2007. During this period the company maintained a high level of current assets at any given volume of sales.

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## **Accounts Payable**

The Longest period it took the company to settle its suppliers was 58 days that was in 2003 and surprisingly that was the period when the Company recorded the lowest profit in its operation. This was however good because the more the Company delayed in the payment of debt the more funds were made available to run the business.



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## LOGS &amp; LUMBER LIMITED

Appendix 1

## MANAGEMENT ACCOUNTS (FINANCIAL STATEMENT FORMAT) 2003

BALANCE SHEET  
AS AT 31/12/2003

	12/31/2002	12/31/2003	3/31/2004	12/31/2005	12/31/2006	12/31/2007
<b>FIXED ASSETS</b>	42,483,955,837	37,587,138,160	37,429,256,119	56,099,222,248	64,066,440,327	GH¢ 7,841,216
<b>INVESTMENTS</b>	169,985,800	169,985,800	169,985,800	169,985,800	169,985,800	22,453
						7,863,670
<b>CURRENT ASSETS</b>	11,964,705,495	16,406,751,322	11,587,699,035	33,489,247,076	30,683,654,907	3,885,794
Stocks	27,346,011,806	33,030,214,500	44,327,935,963	41,343,997,167	45,617,594,334	5,680,525
Accounts Receivable	497,746,479	655,264,397	1,076,205,780	2,075,746,642	1,336,466,383	50,059
Bank & Cash Balances		214,462,069		571,530,430	500,594,334	133,466
Taxation						9,749,844
Total Current Assets	39,808,463,780	50,306,692,288	56,991,840,778	77,480,521,315	78,138,310,529	
<b>CURRENT LIABILITIES</b>	8,351,421,005	9,030,580,856	14,561,161,792	7,964,296,110	9,336,532,580	1,656,655
Bank Overdrafts	11,712,004,631	11,949,356,899	8,213,119,144	4,585,904,892	5,540,172,831	1,086,822
Accounts Payable	428,760,761		0	0	0	
Taxation	28,067,660,220	40,307,076,093	48,206,380,901	57,794,280,972	49,057,727,401	5,632,044
Bank Loans	48,559,846,617	61,287,013,847	70,980,661,838	70,344,481,974	63,934,432,813	8,375,520
Total Current Liabilities	(8,751,382,837)	(10,980,321,558)	(13,988,821,059)	7,136,039,341	14,202,877,716	1,374,324
<b>NET CURRENT (-LIABILITIES) ASSET</b>						
<b>DEFERRED LIABILITIES</b>	11,664,031,525	2,601,661,569	2,601,661,569	22,570,894,522	30,026,763,359	3,453,519
Bank Loans	11,664,031,525	2,601,661,569	2,601,661,569	22,570,894,522	30,026,763,359	3,453,519
Total Deferred Liabilities	22,238,527,275	24,175,140,832	21,008,759,291	40,834,352,867	48,413,540,484	5,784,474
<b>NET ASSETS</b>						
	1,700,000,000	1,700,000,000	1,700,000,000	1,700,000,000	1,700,000,000	170,000
Capital Surplus	8,351,613,290	8,351,613,290	8,351,613,290	8,351,613,290	8,351,613,290	835,161
Undistributed Profit to 31/12/2002	12,186,913,985	12,186,913,985	9,928,770,856	17,122,658,925	24,577,838,576	1,005,158
Profit for Year to Date	22,238,527,275	24,175,140,832	21,008,759,291	10,051,613,290	48,413,540,484	4,779,316

## REPRESENTED BY

Stated Capital  
Capital Surplus  
Undistributed Profit to 31/12/2002  
Profit for Year to Date

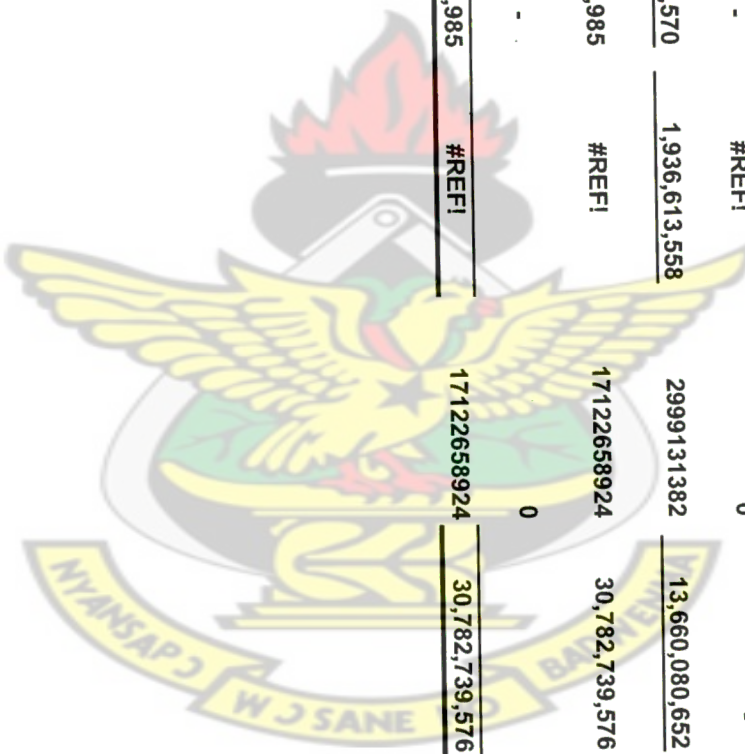
**LOGS & LUMBER LIMITED**  
**MANAGEMENT ACCOUNTS (FINANCIAL STATEMENT FORMAT) 2003**

	<u>Profit and Loss Account</u>					
	12/31/2002	12/31/2003	12/31/2004	31/12/2005	31/12/2006	12/31/2007
<b>Sales</b>	125,030,744,024	117,676,433,125	155,034,240,350	154,075,985,979	167,000,347,540	19,969,860
<b>Cost of Sales</b>						
Sawmill Operations	31,464,985,447	29,353,435,642	40448252885	33,898,048,141	46,606,845,550	5,204,311
Plymill Operations	39,549,696,997	35,798,164,333	54382390619	46,143,089,203	53,905,036,440	3,672,674
Engineering	7,398,059,231	8,935,484,996	8454505175	13,885,264,978	13,789,602,300	1,715,564
	78,412,741,675	74,087,084,940		93,926,402,322	114,301,484,290	10,592,550
<b>Expenses</b>						
Selling	10,305,957,127	12,157,249,953	15509750581	9,971,567,043	10,016,541,260	993,849
General & Administrative	13,778,013,847	15,718,737,777	19148756938	19,226,565,425	21,869,915,820	2,612,971
Financial	14,263,094,942	13,376,110,792	14215129924	17,387,120,537	8,242,582,220	1,004,145
	38,347,065,916	41,252,098,522		46,585,253,005	40,129,039,300	4,610,965
<b>Net Operating Profit</b>	8,270,936,432	2,337,249,663	2,875,454,227	13,564,330,653	12,569,823,950	4,766,346
<b>Investment Income</b>	22,500,000	24,300,000	4,500,000	60,750,000	79,200,000	11,084
<b>Total Income</b>	8,293,436,432	2,361,549,663	2,879,954,227	13,625,080,653	12,649,023,950	4,777,430
<b>Corporate Taxation</b>	1,213,302,205	593,786,243	147111031	-	-	-
<b>National Reconstruction Tax</b>	220,112,299	59,038,742	93767363	-	-	-
<b>Under/Over Provision of Tax</b>	524,368,903	-	0	-	-	-
<b>Net Profit after Taxation</b>	6,335,653,025	1,708,724,678	2639075833	13,625,080,653	12,649,023,950	4,777,430
<b>Profit on Sale of Assets</b>	488,555,545	227,888,880	360055549	34,999,999	1,166,000,000	145,376
<b>Profit or Loss on Exchange Realised</b>						73,167
<b>Sundry Income</b>						85,228
<b>Net Profit Transferred to Income Surplus Accc</b>	13,606,824,208,570	1,936,613,558	2999131382	13,660,080,652	13,815,023,950	5,081,21

Income Surplus Account

Opening Balance, Brought Forward	5,362,705,415	13,786,545,424	14123527543	17,122,658,924	2,457,783.86	<u>5,081,201</u>
Prior Year Adjustment	-	#REF!	0	-		3,836,193
Net Profit For The Year	<u>6,824,208,570</u>	<u>1,936,613,558</u>	2999131382	<u>13,660,080,652</u>	30,936,310.00	138,077
	12,186,913,985	#REF!	17122658924	30,782,739,576	13,815,023,950	<u>5,081,201</u>
Dividend Declared	-		0			8,779,317
						4,000,000
Closing Balance, Carried Forward	<u>12,186,913,985</u>	<u>#REF!</u>	17122658924	<u>30,782,739,576</u>	13,786,545,424	<u>4,779,317</u>

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Liquidity Ratios

Liquidity Ratios	2002	2003	2004	2005	2006	2007
Current Ratio	0.81 times	0.82 times	0.83 times	1.1 times	1.2 times	2.4 times
Quick Ratio	0.11 times	0.74 times	0.62 times	0.6 times	0.55 times	0.57 times

