

**WORKING CAPITAL MANAGEMENT PRACTICES AT BIBIANI LOGGING &
LUMBER COMPANY LTD (BLLC)**

By

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DEDICATION

This work is dedicated to God Almighty for his strength and guidance throughout my entire period of study, with love to my husband Mr Raphael Agyemang Duah for his advice and support and lastly, to my parents who have always been there every step of the way.

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ABSTRACT

The focus of this study is to critically evaluate the working capital management practices at Bibiani Logging & Lumber Company Ltd (BLLC). No business can continually function effectively and efficiently without working capital. Working capital management is to ensure that a firm is able to meet its day to day operations and also have sufficient ability to satisfy both maturing short-term debt and operational expenses. This study evaluates the working capital management techniques used at the Bibiani Logging & Lumber Company Ltd. Seven key employees were sampled for the study using the purposive sampling technique, and the data analysed qualitatively. The study reveals although the working capital management techniques at the lumber company are not in accordance with the company's policy on working capital management, the level of liquidity is quite remarkable. The major problem facing the company is the disregard for a conscious effort to ensure efficient and effective working capital management.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 BACKGROUND TO THE STUDY

The part of a company's capital that is required to meet the day to day operations of business can somewhat be compared to the fuel in a motor vehicle. The working capital keeps the company running, but many a time businesses get their capital locked up in inventory or to credit customers. Businesses come to a virtual standstill when they lack the adequate capital or funds on hand to meet its day-to-day transactions. It is not an easy task to achieve and maintain an optimal level of working capital. This paper focused on how timber companies in Ghana are surviving with respect to financial stability in spite of the constant tendency for their capital to be locked up in inventory. The purpose of this research work is to delve into how financial resources generated by Bibiani Logging & Lumber Company Ltd (BLLC) are managed or utilized judiciously. Finance is very relevant in promoting growth of business. This is widely acknowledged in both empirical and theoretical research on small, medium and large businesses. (Abor and Biekpe, 2006, Kasekende, 2001).

Although the timber business is in critical times, with most companies shutting down, it is still one of the oldest raw materials which contribute to the Nation's GDP.

1.1 STATEMENT OF THE PROBLEM

Generally, the timber industry is downsizing as a result of the basic raw material needed for operations, timber, and most especially liquidity crises being faced by them. The liquidity crisis is as a result of inefficiencies and mismanagement of the company's resources. This financial crisis is a contributing factor to the collapse of most timber companies in the nation especially in the Kumasi suburb. It has therefore become of

great importance the need for timber companies including BLLC to manage effectively its working capital to remain liquid enough to meet its financial encumbrances in order to stay in business. The proper management of a company's working capital can make it profitable and enable it to gain competitive advantage over its competitors. Most businesses take working capital management seriously while the timber industry widely overlooks this.

According (Vallely, 2011), businesses thrive on adequate working capital and with less of it, business is likely to be stunted making it difficult for the firm to execute good projects. This is also likely to affect operational plans.

Chatreji (2010) researched on how management of working capital affects profits firms on London stock exchange for the periods 2006-2008. He made use of Pearson variables to access the effect of cash cycle, receivables period, inventory period, payables period, the current ratio and the quick ratio. The outcome shows an inverse relationship WCM and profitability.

Hassanpoor (2007) also researched on the effects on strategies of working capital on returns from 2001 to 2005 profitability as well. He emphasize on the working capital level of a firm which leads to the maximization of resources to create value. The researcher feels strongly that these studies may not be applicable to the Ghanaian context, taking into account that Ghana operates in a different and more fragile business environment.

This is why there is the need for this study to examine how this timber company manages its working capital management effectively, and whether that has a bearing on profitability.

1.2 RESEARCH QUESTIONS

The objectives of this research are:

1. What are the working capital management techniques used by BLLC?
2. What are the accounts receivables and payables policies currently being adopted by the company?
3. What problems does the BLLC encounter in relation to cash management?

1.3 RESEARCH OBJECTIVES

The research objectives are divided into general and specific objectives.

1.3.1 General Objective

The overall objective of this research is to critically analyze how the working capital of firms in the timber industry are managed, and to recommend ways of improving working capital management of these type of companies, with specific emphasis on ways of improving the cash management and inventory controls.

1.3.2 Specific Objectives

1. To analyze the working capital management techniques being used by BLLC.
2. To identify the current accounts receivables and payables policies currently being adopted by the company.
3. To examine the nature and range of problems that the BLLC faces in managing its working capital.

1.4 SCOPE OF THE STUDY

The study is restricted to BLLC because of time and resources constraints with the focus on how effectively the company manages its working capital and ways of improving upon it. The fact that the study is not longitudinal means it does not cover a long period.

It may also not reflect the state of affairs in the years later than 2010. However the findings being gathered can be used to draw some generalizations.

1.5 SIGNIFICANCE OF THE STUDY

Working capital management is necessary for any company to remain liquid enough to meet its short term creditors and finance its operations. Every company's prosperity depends on their ability to manage its resources efficiently and effectively to enhance shareholder's value. It's always been said that cash is king, hence the life blood of any business whether for profit or non- profit organizations. Since blood is a necessity of every living thing, it's the duty of every business to obtain the required nutrients to ensure constant flow of blood for its survival. Among the various factors which influence working capital policies of firms include nature of business, market/ demand conditions ((Ben-Horim and Levy,1983), Technology and manufacturing policy (Wood, 1993), credit policy of the firm (Walia, 1977), payable management (Gitman, 2005) operating efficiency (Abdul Rahman and Mohamed Ali, 2006; (Fairchild, 2005), (Sehgal, et al, 2006) (Hossain and Akon, 1997)), competition (Filbeck and Krueger, 2005), factors affecting supply, size, agency problems, growth and profitability, (Kolay, 1991) industry (Hawawini, et al,1986; and Nunn (1981)). Marfo-Yiadom (1996) concluded that nature and size of business, uncertainties in business, growth and expansion activities, availability of credit facilities from suppliers, and price level changes influence working capital decisions greatly. Moyer et al (2001) considered sales level, credit policies and the length of the operating cycle as very crucial factors affecting the efficiency of working capital management.

For BLLC to survive amidst the collapse of most companies in the timber industry, the company should be able to have enough cash to fund its operations, meet payments

obligations and capital needs. In spite of the profitability of a business, the company with liquidity issues will struggle to survive.

1.6 LIMITATION OF THE STUDY

The study is restricted to BLLC because of time and resource constraint. However, the findings being gathered can be used to draw some generalizations at least, across the timber industry. Also, issues confidentiality made it difficult in gathering information. In spite of this, the appropriate approaches were used to minimize the effects of these limitations.

1.7 ORGANISATION OF THE STUDY

The structure of the thesis is categorized into five chapters. Chapter one deals with the general overview of the study like the introduction, research objectives and questions, significance, scope ,limitation and how the study is organized.

Chapter two involves the literature review; chapter three describes the methodology whereas chapter four presents the analysis and findings. Chapter five gives the summary of the findings as well as the necessary recommendations and the conclusions.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter critically reviews the relevant literature on management of working capital. It discusses in detail, the composition of working capital, the techniques employed in managing working capital and the findings of similar work on working capital management in industries dealing with huge inventory sizes.

2.1 THE CONCEPT OF WORKING CAPITAL MANAGEMENT

Working capital is sometimes referred to as the fluctuating capital of an organization. In a research paper, Vallely (2011) argues that the main objective of working capital management is to ensure that a firm is able to meet its day to day operations and that it has sufficient ability to satisfy both maturing short-term debt and operational expenses

The concept of working capital management has been applied in business for decades even before the term was formally coined and used by finance experts. Working capital management passes through different stages, mainly – the control, optimization and value measurement stages. According to Brealey et al (2006) working capital management originally started as a systematic approach of controlling the cash inflows and outflows, accounts receivables, accounts payables and inventories.

The main focus of working capital management is cut across both physical and also on ensuring that related costs are minimized and all incomes maximized. Working capital entails debtors, stock, and creditors.

2.2 WORKING CAPITAL MANAGEMENT

Working capital management is a managerial accounting strategy which focuses on maintaining efficient levels of both components of working capital, current assets and current liabilities, in respect to each other. Working capital management ensures that a company has sufficient cash flow in order to meet its short-term debt obligations and operating expenses. -Ross, Westerfield and Jordan et al, (2008).

It therefore makes a lot of academic sense to say that if businesses are able to manage their working capital well, they will certainly have a lesser need to borrow. Even companies with cash surpluses need to manage working capital to ensure that those surpluses are invested in ways that will generate returns commensurate with the capital employed.

The amount of working capital (current assets less current liabilities) and the current ratio (current assets divide by current liabilities) are valuable indicators of a company's ability to pay its debts in the near future (Meigs & Meigs, Bettner & Whittington, 1998).

With reference to the capital structure debate, as the Ghanaian economy clearly lends support to debt financing. Given the challenges businesses go through in securing funds to operate their activities, it will be prudent for them to effectively and efficiently manage the components of working capital to generate funds to support business operations.

2.3 WHY WORKING CAPITAL MANAGEMENT?

According to Srinivasan (1999), cash management plan involves; cash forecasting, cash flow control, optimum cash level and investing surplus cash.

Each element of working capital has both time and money Dimensions (Thomas and Searberough, 2005). Managing capital has deals with the taking the relevant steps to ensure availability of important resources which helps to generate cash flows. This could lead to cost reduction and efficient use of cash resources. Moyer et al (2001) submit that effective cash management is particularly key for small and medium firms for the following reasons:

- ❖ To prepare budgets for loans;
- ❖ To avoid waste of resources;
- ❖ To make available enough cash to support trading activities;
- ❖ Ensure effective and efficient cash usage.

2.4 IMPORTANCE OF WORKING CAPITAL MANAGEMENT

For every business to continually function effectively and efficiently it requires working capital. Well-equipped firms also have to control their working capital effectively to avoid the risk of collapse. They need to operate at an optimal level generate enough cash to support their day-to-day operations.

Peel and Wilson (1996) argued that one of the acts that is relevant to health and performance of a firm is the working capital management and good credit control. Berry et al (2002) also discovers that there less development of financial management practices among the SMEs and draws a conclusion that owner-managers should be made to see the importance of improved financial management practices. According to De Chazal Du Mee(1998) , 60% of enterprises face cash flow difficulty.

Narasimhan and Murty (2001) emphasized on improved ROCE among firms by paying more attention to areas such as containment of cost, working capital investment reduction and improvement of working capital efficiency. Shin and Soenen (1998) and Deloof (2003) have found a distinguishing link between measures of working capital management and profitability of firms. Their finding emphasize that in order to increase profitability, management has to reduce receivable period and that of trading stock. This is crucial for small businesses that finances high amount of receivables.

2.5 FACTORS INFLUENCING WORKING CAPITAL MANAGEMENT

Working capital is managed within a dynamic milieu of forces which must be delicately balanced to ensure optimum performance. The principal catalysts according to several research findings are:

- Computerized accounting systems for periodic financial reporting
- Highly motivated owners or directors of firms
- Qualified internal accounting staff
- Proactive external accountants
- Pressures from finance providers, including angel investors.

Many of the factors identified by Stuart McChlery et al(2004) as a catalyst to sound financial management (include the application of working capital and capital hedging techniques) need to be tested empirically in a developing country like Ghana. The condition prevalent in developed countries like United Kingdom is basically different from that of the developing country like Ghana. There is therefore the need to undertake a study in a community like Kumasi. (Financial management practices and Working management practices; Agyei-Mensah 2012)

Moreover, there is data to affirm some of the findings identified by Stuart McChlery et al (2004) and (Agyei-Mensah 2012) as a catalyst to the application of sound financial management.

Identical to the catalysts identified by Stuart McChlery et al (2004) as catalysts to the application of sound financial management, the factors influencing sound financial engagement application indicated above also need to be tested in a less developed country to make a better generalization of the Stuart McChlery et al (2004) findings.

The preceding literatures give the researcher a concrete basis and give an overview of management of working capital. There are different outcomes for these researches in many countries where they were conducted. The day-to-day operation of a company needs a good working capital for smooth operations.

Working capital is as important as the blood in our body. A firm will become weak and unprofitable if its working capital needs are not met (Rafuse, 2002). Successful firms are those that are able to manage their need for working capital efficiently.

(Kargar and Blumenthal, 2003) believed that performance levels of small businesses depends on key operational factors such as marketing, manufacturing and so on. How a firm manages its working capital is a reflection of its how efficient that company will be. This is due the huge investment in working capital. Small businesses in Ghana have problems managing their working capital leading to under capitalization.

The use of ratios as part of management of working capital is very common unlike working capital policies.

Some earlier work by Gupta (1969) and Gupta and Huefner (1972) examined the differences in financial ratio averages between industries. The conclusion of both the

studies was that differences do exist in mean profitability, activity, leverage and liquidity ratios amongst industry groups. Johnson (1970) extended this work by finding cross-sectional stability of ratio groupings for both retailers and primary manufacturers. Pinches et al. (1973) used factor analysis to develop seven classifications of ratios, and found that the classifications were stable over the 1951-1969 time periods. Aryeetey et al (1994) reported that 38% of the SMEs surveyed mention credit as a constraint. In the case of Malawi, it accounted for 17.5% of the total sample (Daniels & Ngwira, 1993:30-31).

(Smith and Begemann 1997) believed that pioneers of working capital are pivoted on profit and liquidity. This could lead to dilution of profit. Pursuing liquidity could lead to dilution of the profit of the firm.

Their study evaluated the link between traditional and alternative working capital measures and return on investment (ROI), specifically in industrial firms listed on the Johannesburg Stock Exchange (JSE). They aim to test the different working capital theory is linked to ROI or not.

They found that there little variation the period with respect to the independent variables. The results also showed that most the ratios used has an association with return on investment.

There are two major policies involved in analyzing a firm's use of short-term financing which are recognized by the financial literature. With the uncertain and volatile environment in which financial managers operate, Keown et al (1996) have come out with two policy issues concerning analysis of a firm's use of short-term financing:

How much short- term financing should the firm use?

What specific sources of short-term financing should the firm select?

They approach the first question by the use of the ‘hedging ‘ principle of working capital management. The second issue is addressed by considering the following three basic factors:

What is the effective cost of credit.

The availability of credit in the amount needed and for the period that financing is required.

The influence of the use of a particular credit source on the cost and availability of other sources of financing.

The hedging principle involves the cash-flow generating characteristic of an asset with the maturity of the source of financing used to finance its acquisition.

Determination of the minimum required balances of each type of asset, according to Weston and Copeland (1994) bothers on aggressive, conservative or average working capital policy.

The notion of maturity matching in the hedging principle is most easily understood when the distinction between permanent and temporary investments in assets is thought of. Van Horne and Wachowicz (2008) treat permanent and temporary working capital under time in his classification of working capital.

Matching or assets permanence funding policy would be one which finance current assets with short-term funds while financing permanent current assets and fixed assets with long-term funds. The maturity of the funds in this approach roughly matches the maturity of different types of assets (Watson and Head, 1998). Asset needs of the firm

not financed by spontaneous sources should be financed in accordance with the rule that permanent asset investments are financed with permanent sources and temporary investments are financed with temporary sources.

According to Weston and Copeland (1994) this policy is unsound because current assets include 'permanent' investments that increase as sales grow. In his judgment, the financing of the permanent portion of current assets should be with the permanent portion of short-term debt (the spontaneous portion provided by creditors and accruals) and by long-term debt and equity financing to the extent required.

Financial theorists have posited a number of guidelines given the available working capital policy options, as a guide to management decisions.

The assumption is that marketable securities would never be held by business firms while concurrently incurring short-term debt.

Park and Gladson (1993) therefore suggest that if net asset requirements exceed long-term sources of financing, then short term bank borrowing is needed.

The task facing financial managers in decisions of working capital policies is the need to take into account the nature of the company's business since different businesses will have difference working capital requirements. "Working capital policies need to reflect the credit policies of the company's competitors, as it would be foolish to lose business because of an unfavorable comparison of trade terms" (Watson and Head, 1998).

Task facing financial managers in working capital decisions is the orientation towards the dual goals of liquidity and profitability of the firm, as discussed by Pass and Pike (1984).

Keown et al (1996) also contributed that not that many of the working capital decisions made by financial managers involve risk-return trade-offs between liquidity and profitability.

“The principle is that businessmen will not take on additional risk unless they expect to be compensated with additional return. The more current assets held and the more long-term financing used, the less the risk of illiquidity and the lower the return. Decisions that tend to maximize profitability tend to lower the chance of adequate liquidity. On the other hand, focusing highly on liquidity will tend to reduce the profitability of the firm”.

Van Horne (1995), subsequently, introduces the concept of marginal analysis to determine the optimal level of liquidity. In other words, under imperfect conditions in the capital markets, there is cost to maintaining liquidity.

Accordingly, the cost of liquidity may be thought of as the differential in interest earned on the investment of funds in liquid assets and the cost of financing. The optimal level of liquidity, then, could be determined by marginal analysis. Why its liquidity position a key factor in company's position? Firms should be able to generate or have needs to continue as a going concern. Theoretical justification for maintaining liquidity depends on the focal point of management. Lenders, for example, are more particular about the liquid nature of inventory and receivables to allay fears of loans not being repaid in the event of insufficient cash.

The impact of working capital policies on profitability and liquidity goals of the firm, therefore, depends on the focus of management. The profitability in the sense of Watson and

Head (1998) can be related to the goal of shareholder wealth maximization. From the various conceptual understanding and research work, it may be stated that management of working capital should be regarded as an vital part of overall financial control and should be evaluated by considering its impact on the valuation of the firm as a whole.

2.6 THE BAUMOL MODEL

The Baumol (1952) model is the model used to determine the amount of cash that a firm should hold to minimize the total cost, that is, the transaction cost and opportunity cost associated with cash. The model assumes that cash is used uniformly throughout the period and therefore is not useful if a firm has seasonal needs for cash.

Using 'T' to represent the transaction cost associated with cash infusion, 'D' represents the annual demand for cash and 'K' represents the opportunity cost associated with holding cash, the amount of cash that a firm should obtain each time it gets a cash infusion 'Q' can be calculated using the formulae known as the Baumol Model

$$Q = \sqrt{2TD/K}$$

For firms that do not have cash flow occurring throughout the year, the Miller-Orr (1966) model is applicable.

This model assumes that cash flow is unpredictable throughout the year and it therefore allows the cash balances to vary between the Lower Limit which is the minimum cash balance the firm should hold and the maximum cash balance.

Whenever the cash balance drops below the lower limit, the firm gets a cash infusion to bring it to a level referred to in the model as the Return Point. Whether the cash balance exceeds the Upper Limit, the firm should invest any cash that exceeds the return.

According to Miller-Orr (1966), the Return and the Upper Limits are calculated with the following formulae.

$$\text{Return} = \text{Lower Limit} + \sqrt{(\cdot)}$$

$$\text{Upper Limit} = \text{Lower Limit} + \sqrt{(\cdot)}$$

Where;

T = Cost per transaction

K= Opportunity cost per day

V= Variance of daily cash flows

Lower Limit= Safety stock level of cash

According to Adom (2001), for many firms the total of transaction balances plus a safety stock constitutes the minimum cash balance and that is the point where the firm will have to borrow additional cash or sell part of its portfolio of marketable securities to bolster its position.

2.7 MARKETABLE SECURITIES INVESTMENT

These are short-term instruments or money market instruments that the company invests in.

Their duration is usually one year or less. Investments here are more often than not done in government's securities and high quality corporate debt issues.

In Ghana, these come in the form of Treasury Bills, Treasury Notes, Repurchase Agreements, Bankers Acceptance, Commercial Papers and Negotiable Certificate of Deposit.

Stancill (1971) has observed that marketable securities (also called short-term investments in the company's books) are held for three main reasons:

Firstly, it acts as cash reserve. This means that unless the entity's outflows are equal or less than the inflows, there will come a time when the cash balances of the organization will fall short. When this happens, some of the marketable securities are quickly sold to build up cash. Securities are held so to cater for unforeseen or uncontrollable cash needs.

Secondly, securities are kept to meet controllable outflows such as quarterly dividend, tax payments, loans falling due and interest settlement. The organization can plan for this eventual payments but accumulating cash in the form of marketable securities which will be earning interest while the accumulating continues.

Thirdly, the company can invest in marketable securities when it has excess cash that it just wants to put away in the form of that investment. Since the cash does not have an immediate need, it's more prudent to invest it than let it lie in a bank account or lie idle.

According to Van Horne and Wachowicz (2008) every firm must consider four variables before investing in marketable securities.

These are safety, marketability or liquidity, yield and maturity. In safety we look out for an investment that will not lead to the loss of the principal invested. In marketability, we look for the ability to sell all or a significant portion of the stock within a short notice. We look for the interest the funds can accrue in yield while in maturity; we look out for the period of the security, that is, the length it matures.

2.8 ACCOUNT RECEIVABLES

2.8.1 Definition and Importance of account receivables

Generally, account receivables refer to amount owed to the company by its clients for goods and services (Van Horne and Wachowicz, 2008). Account receivables play an important role in the working capital cycle because the company's inability to collect them will result in shortfall of funds invested in inventory. Some industries, by the nature of their business, do more credit sales than others. It follows then that the more credit sales they do, the more funds they will have tied up in account receivables. For instance, large grocery stores do a lot of cash sales as compared with a construction firm. The grocery shop in this instance will have less accounts receivables than the construction firm. Obviously, some companies do have bigger account receivables than others. In a chart released by the US Treasury, companies were ranked in terms of the percentage of their working capital tied up in account receivables.

Table 1: Account Receivables as a Percentage of Total Assets for Major Industries

Accounts receivables relative to total assets

1. Total construction 29.16
2. General merchandising stores – retail 17.27
3. Automotive dealers and service stations – retail 17.21
4. Transportation 11.65
5. Building materials, garden equipment and supplies - retail 11.11
6. Agriculture, forestry and fishing 9.74
7. Air, rail and water transportation 6.09
8. Food stores 5.29
9. Hotels and other lodging places 4.76
10. All industries 19.26

Source: Internal Revenue Service, US Treasury Department, Statistics of Income, 1999, Corporate Income Tax Returns, 15-167.

2.8.2 Determinants of the size of investment in account receivables

The size of investment in account receivables is influenced by several factors. As explained by

Keown et al (2001), the first of such influence is the percentage of credit sales to total credit sales. This is usually influenced by the nature of the business. As discussed above, a grocery store will have lower account receivables than a construction firm. This is because while the latter does its business mainly on credit, the former does sales mainly on cash basis.

The second factor is the level of sales. The more sales the company makes, the more likelihood its accounts receivables will raise. The third determinant of the level of investment in account receivables relate to the credit and collection policies being put in place.

The level of accounts receivable is determined by the volume of credit sales and the average period between sales and debt collections. The average collection period (ACP), never the less, is dependent partly on economic conditions and partly on a set of credit policies variables (controllable factors), (Weston and Copeland, 1994).

2.8.3 Credit and collection analysis

The financial controller can vary the level of receivables to keep with the trade-off between profitability and risk. Weston and Brigham (1982), categorizes credit policy variables into four major policy variables including

- Credit standards
- Credit periods
- Discount given for early payments and
- The firm's collection policy

A number of writers have attempted to formulate decision models, which integrate several elements of working capital management.

Sortoris-Hill (1985), building on the earliest work of others like Kim and Atkins (1978), formulated a Net Present Value (NPV) cash flow approach to the analysis of alternative credit policies. Their decision model is based on calculating the net gain or loss resulting from a change in credit policy.

The company's optimal credit policy is the one which results in the largest NPV. Van Horne

(1995) interprets that if products and capital market are reasonably competitive, the credit and collection policies of one firm are not independent of those of other firms. He suggest that an optimal credit policy involve extending trade credit more liberally until the marginal profitability on additional sales equals the required return on the additional investment in receivables. To Weston and Brigham (1982), the marginal or credit quality cost include;

- The default or bad debt losses
- Higher investigation and collection costs and
- Higher amounts and cost of capital tied up in receivables of less credit-worthy accounts.

Conceptually, it is suggested that customers are to be categorized for the purposes of approving or refusing credit to determine the profitability of default. Pierson et al (1993) came with the 'decision tree' technique as a useful aid in deciding whether to grant credit.

The three possible options in the approach are;

- Granting credit
- Refusing credit and
- Investigating the customer

The approach is undoubtedly right for a company that depends mainly on information collected from experience with its own clients. The credit standards influence the incidence of bad debts and delinquent accounts and so the decision made out of the three options is based on the lowest cost.

One area that received the attention of researchers and writers is the term of credit. Three distinct items that made the terms of sale are;

- ❖ The credit period
- ❖ The cash discount and the discount period and
- ❖ The type of credit instrument

The actual implementation of changes in credit policy requires that some very difficult judgments be made. According to Weston and Brigham (1982), the methodology involves some uncertainty and firms, therefore, move slowly towards optimal credit policies. The credit policy is fluid, dynamic and ever changing to reach a continually moving optimal target until the marginal profitability on additional sales equals the required return on the additional investment in receivables.

Once a credit policy is established, Hite (1996), suggest that firm monitors its accounts receivables in order to be certain that its customers are being monitored by the terms offered and that the terms offered and the benefits still far outweighs the costs. The

finance manager can use the Average Collection Period (ACP) and the Aging Schedule (AS) as the two tools for monitoring.

The formula for calculating ACP is as follows;

$$\text{ACP} = \text{Account Receivable} \times 365 \text{ days} / \text{Credit sales}$$

The ACP is the average numbers of days it takes a firm to collect its credit sales. It is just one number and can look reasonable even when substantial percentages of the firm's customers are paying late. The AS on the other hand provides more information, as it categorizes account by the number of days they have been in the books of the firm. In a survey done by Stone (1976), out of the companies which reported the use of some systematic procedures to project debtors, a great majority used either a pro-forma projection of Days Sales Outstanding (DSO) or some other ratio of debtors. The AS is arguably the most popular method in the control of debtors.

2.8.4 Credit losses and computer analysis

Kolb and Rodriques (1993) emphasize that some credit will simply not be repaid and it behooves on the credit manager to be prepared to confront these losses. Irrespective of how careful the credit managers are in screening customers, some customers will default in their obligations for varied reasons including changes in economic situation, increased competition, managerial incompetence or outright frauds.

Weston the Copeland (1984) also asserts that when interest rates are high and financing requirements are large, buyers may delay their payments beyond the normal credit period.

The firm's investment in accounts receivables will consequently rise and increase its financing requirement. This inevitably highlights the important aspects of credit and collection policies in the broad spectrum of receivables management.

Van Horne and Wachowicz (2008) however, assert the whole issue of credit and its collection can be outsourced. When this is done, it frees core staff time to attend to the real business of the firm rather than spending time in debt collection. Weston and Brigham (1982) concluded that by nature, credit management lends itself to the use of computer controls because of this need for information analysis, storage and retrieval.

The effectiveness of a credit department is greatly enhanced by the computer's ability to generate periodic reports and analysis to monitor account performance and even to make basic credit decisions

2.9 INVENTORY MANAGEMENT

Inventory is the link in-between the conversion and the sale of the good. Work-in-process is usually the amount of inventory manufacturing companies maintain. Other types of inventory are in-transit, raw materials and unsold finished products. Goods in-transit is inventories between various stages of the production and storage process. Raw materials enables the firms operate flexibly in its purchases.

Without it, the organization will exist in a hand-to-mouth situation that is, buying raw materials strictly in keeping with its production schedules. Finished goods inventory allow the organization a lot more flexibility in its production scheduling and marketing. It allows for the efficient servicing of customers' needs. These combine to give the company liveness in its operation (Van Horne and Wachowicz, 2008).

Inventories serve a number of purposes (Westona and Copeland, 1994). It helps meet anticipated demands, smooth production requirements, protect against stock-outs, take advantage of order cycles or periodic orders, hedge against price increases or take advantage of quantity discounts and permit operations since operations are not instantaneous. Westona and Copeland (1994) regard the major determinants of investment in stocks as the level of sales, the length and technical nature of the production processes and durability versus perishability of the end product. Organizations maintain inventory because sales levels, production times, demand and usage of end products are rarely predictable.

Inventory therefore serves as a buffer against uncertain and fluctuating market and keeps a supply of items available in case the items are needed.

Van Horne and Wachowicz (2008) reports that to prevent companies from holding large inventories, with its attendant cost, they are now adopting a control system called Just-In-

Time (JIT). Keown et al (2001) added that the JIT is more of an inventory control system but also a production and management system. Keown et al (2001) added that this Japanese system which was developed by Tiichi Okno, a vice president of Toyota, runs in the opposite direction with what US companies use which is the Just-In-Case system.

The JIT system works with the primary objective of producing (or receiving) required “items at the exact time needed or just in time”. Obviously, this reduces inventories and its attendant inventory-carrying cost. JIT also helps improve productivity, product quality and flexibility.

Van Horne and Wachowicz (2008) reiterate that despite JIT, stocks should be accrued as “long as the resulting savings exceed the total cost of holding the added inventory.

The balance finally reached depends on the estimates of actual savings, the cost of carrying additional inventory and the efficiency of inventory control”.

To achieve this balance however, there ought to be seamless coordination between the production, marketing and the finance departments.

Anderson et al (1991) asserts that two important questions that managers must answer in order to effectively manage inventories are as follows;

- When should the inventory for the item be replenished?
- How much should be ordered when the inventory for the item is replenished?

Companies should buy or keep inventory on the Economic Order Quantity (EOQ) model (Van Horne and Wachowicz, 2008). This measures the level of inventory to order to reduce holding and ordering costs. Ordering here means either the purchase or production of an item.

According to Keown et al (2001), to aptly control the investment in inventory, management must solve the twin issue of the order quantity and the order point problems. Order quantity problem relates to “determining the optimal order size for an inventory item given its usage, carrying cost and ordering costs” whiles order point problem is “determining how low inventory should be depleted before it is reordered”

The model assumes that;

Total inventory cost = total carrying cost + total ordering cost.

To calculate for the carrying cost therefore, it uses the formula below.

Total carrying cost = (average inventory) (carrying cost per unit) = $(Q/2) C$

Where; Q = the inventory order size in units & C = carrying cost per unit

To calculate for the ordering cost, the following formula is used

Total ordering cost = (number of orders) (order cost per order)

= $(S/Q) O$

Where; S = total demand in units over the planning period = ordering cost per order

The equation for Total Inventory Cost then becomes;

Total Inventory Cost = $(Q/2) C + (S/Q) O$

By manipulating the equation, we get the ordering size Q^* . It is the optimal value or the

EOQ and it's given by the equation below;

Q^* = The how-much-to-order decisions involves selecting an order quantity that draws a compromise between;

- Keeping small inventories and ordering frequently
- Keeping large inventories and ordering infrequently

While the first alternative results in undesirably high ordering costs, the latter results in high holding cost.

According to Anderson et al (1991), another model that is used, when the assumption that units are supplied to inventory at constant rate over several days or weeks instead of arriving in a shipment of size Q^* , as it is assumed in the EOQ model is the Material Requirement Planning and the Just-In-Time Inventory Philosophy models. In situations where the demand rate is not deterministic, the Material Requirement Planning and the Just-In-Time Inventory Philosophy models can be used. These models treat demand as probabilistic.

In conclusion, Anderson et al (1991) emphasize that inventory and inventory systems is of utmost economic importance for managers to be aware of and to make the best possible operating policy discussion for inventory system.

2.10 CURRENT LIABILITIES

Firms can always borrow to support its working capital when they fall short. This is usually short term financing. According to Brealey and Myers (1993) there are several avenue of short-term financing. According to Keown et al (2001), short term finance can be grouped as to whether they are spontaneous or non-spontaneous. Account payables and accrued expenses are classified as spontaneous when they arise in the natural day-to-day operations of the company. This means that as the company expands, so does this expense.

Trade liabilities and stretching payables are means companies use to finance current liabilities. Trade credit, according to Van Horne and Wachowicz (2001), is credit granted from one business or company to another. It is usually the deferment of payment on goods supplied. Stretching payable on the other hand is the postponement of payment of amount due to suppliers beyond the end of the net (credit) period.

It is also called leaning on the trade and dictates that the firm will put off paying its bills and suppliers and use that fund to meet its capital requirement in the meantime. When this financing option is chosen, however, the organization loses any discount suppliers might offer. It must therefore ensure that the gain it is making from the differed payment is much more than the discount the suppliers offer. Other cost associated with this financing option is the charge of penalties or interest according to the industry the business operates in and the possible deterioration of credit rating which might affect the firm's ability to raise credit in the near future.

The firm can also get financing from negotiated (or external) sources. The two popular ones are secured and unsecured bank borrowing. Other sources of negotiated funding are commercial papers, letters of credit and bankers acceptance.

Unsecured bank borrowing is the situation where the firm borrows and repays when it wants so long as it does not exceed the credit limit. It need not pledge any asset as security for the loan. This kind of arrangement is called line of credit and companies that borrow at unsecured line of credit are generally obliged to maintain a compensating balance on deposits at the bank. Stretching payables dictate that the firm will put off paying its bills and suppliers and use that fund to meet its capital requirement in the meantime.

When this financing option is chosen, however, the organization loses any discount suppliers might offer. It must therefore ensure that the gain it is making from the differed payment is much more than the discount the suppliers offer.

Shin and Soenen researched the link that connect management of working capital and value creation for shareholders. One good measure of working capital management is the cash conversion cycle (CCC). This refers to the period between when cash is paid and

when cash is received. It is a measure of inventory period and receivables period minus the payables period. Shin and Soenen also used the net-trade cycle (NTC). Where all the three components are measured in percentages, NTC is equal to CCC. To test the relationship between working capital management and corporate profitability, Deloof (2003) [5, p. 573] used a sample of 1,009 large Belgian non-financial firms for a period of 1992-1996. He used correlation regression tests and discovers a negative relationship between gross profit and debtors days, stocks and creditors. He suggested based on the research results, corporate profit could be increased by lowering debtors period and stocks period.

Raheman and Nasr (2007) [2, p. 279] studied the effect of different variables of working capital management including average collection period, inventory turnover in days, average payment period, cash conversion cycle, and current ratio on the net operating profitability of Pakistani firms. They selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of six years from 1999 to 2004 and found a strong negative relationship between variables of working capital management and profitability of the firm. They found that as the cash conversion cycle increases, it leads to decreasing profitability.

Given the significant investment in debtors, credit management strategies have a vital implication for corporate value for large organizations. A well-managed resources leads to profitability. Since working capital management is best described by the cash conversion cycle there is an established link between profitability and management of the cash conversion cycle. This simple equation encompasses all three very important aspects of working capital management. It is an indication of how long a firm can carry on if it was to stop its operation or it indicates the time gap between purchase of goods and collection of sales.

The acceptable level of stock will impact directly on profitability since it allows working capital resources which in turn be invested in the cycle of business. Similarly both credit policy from suppliers and credit period granted to customers will have an impact on profitability. In order to understand the way working capital is managed cash conversion cycle and its components will be statistically analyzed.

2.11 THEORETICAL FRAMEWORK/ CONCEPTUAL FRAMEWORK

Efficient Working capital management benefits to organizations cannot underestimated. Viability of businesses relies heavily on the management of elements that made up the working capital. Therefore organizations need to be pragmatic in the quest to creating value through working capital management.

There are several approaches used by writers, researchers, and so on about the subject. Park and Gladson (1963) used fund flow as an accounting orientation to study the subject.

2.12 CONCLUSION ON LITERATURE REVIEW

As the critical evaluation reveals, working capital management as a theoretical ideal works so well to save to industries from throwing away financial resources into the drain. A closer look at the evidence from literature however reveals an interesting gap in literature. The researchers have ignored the timber industry. This survey therefore intends to fill that gap. The focus is to enrich available literature as regards working capital management in the timber industry.

Hunt et al,(1980) view working capital management as making a choice on the amount of funds that should be invested in the various assets of the organization. Some researches argue for liquidity as a measure of efficient working capital management

whiles others violently oppose it. Although this study is not supporting either school of thought, these arguments set the sets the pace for this study.

CHAPTER THREE

METHODOLOGY AND ORGANISATIONAL PROFILE

3.1 OVERVIEW

This chapter discusses the methods employed to achieve the objectives of the study. It seeks to explain the various variables that will help the completion of this work. It defines the population and other methods of data collection and analysis.

3.2 RESEARCH DESIGN

The research design is an aspect of the study which elaborates on how the research is carried. The qualitative research method was used for the research because it allowed for detailed information to be collected about how working capital is managed at the company.

The researcher used carefully designed questionnaires with both open and close-ended questions to collect the data. Unstructured face-to-face interviews were also used on some officials in charge of working capital management at Bibiani Lumber and logging company Ltd (BLLC). This strategy, the researcher believes, helped to make the research valid as well as improve the relevance of the outcome, increase the strength of generalizations, and provide a solution linking the research objectives and research questions adequately.

3.3 SOURCES OF DATA

The researcher gathered the data from both primary and secondary sources.

3.4 PRIMARY DATA

The primary data was obtained from important staffs, heads of departments, personnel in charge of internal audit, procurement and some other employees whose duties have an

effect on the working capital of the company. The primary data was gathered principally through questionnaires and interviews.

3.5 SECONDARY DATA

The secondary data was collected from annual financial reports, analyzed statement of financial position (balance sheets) and income statements of the Bibiani lumber and logging company for the periods 2010, 2011, 2012 & 2013 were used to evaluate the trends of profitability and the elements of working capital. Company brochures, books, periodicals, and journal articles relating to working management were also consulted.

3.6 POPULATION

Best (1998) explained that, “A population is any group of individuals who has one or more characteristics in common that are of interest to the researcher. The population may be all the individuals of a particular type or a more restricted part of that group”.

The population of the study is the entire managerial staff whose number stands at twelve. The company has a finance department with very few members of staff as compared to the production and technical department.

3.7 SAMPLING TECHNIQUE AND SAMPLE SIZE

The technique that was adopted was non probability sampling. “Non-probability sampling is a sampling technique in which unit of the sample are selected on the basis of personal judgment or convenience; the probability of any member of the population being chosen is unknown”.

It was impracticable to survey the entire population; hence the purposive sampling technique was used. In all, seven (7) people were interviewed

3.8 DATA ANALYSIS TECHNIQUES

The method of data analysis is based upon the descriptive methods for analyzing and interpreting data. In this thesis, the data was described, studied, synthesized, analyzed and interpreted to ascertain reliability and validity. The company's financial statements four consecutive years beginning from 2010 were analyzed and compared with theoretical ideals, the findings from the various financial statements were also compared with each other over different years.

3.9 ORGNISATIONAL PROFILE BIBIANI LOGGING & LUMBER COMPANY

Bibiani Logging & Lumber Company Limited (BLLC) was founded by Mr. B. M. Kufuor in 1946 as a logging company at Bibiani. The company expanded its operations and subsequently established a Sawmill in Kumasi in 1960 to process timber for exports. In the same year BLLC was incorporated and its head office was moved to Kumasi. The company's path to growth and competitiveness was enhanced by the acquisition of 480 m³ capacity kiln dryers to add value to its products. Since then, the company has grown in size and has evolved into the BLLC of today.

BLLC, the oldest timber firm in Ghana is a wholly Ghanaian owned company. The company is managed by Ghanaians and employs over 500 workers with a lot of forward and backward linkages to the economic activities in their concessions and factory location. To beef-up and complement its management team, key positions in the operations, production and finance are now being occupied by Irish, British and Filipino expatriates.

Major changes in the timber industry prompted BLLC to take a bold step in making an important capital investment in a rotary veneer and plywood factory. This US\$ 2 million

investment was commissioned in October 2005. One motive behind this investment was to employ the use of Lesser Used Species (LUS) in our concessions.

Furthermore, BLLC has installed three (3) new Slice veneer lines in order to diversify its dependence on the primary species that will generate higher value from its timber products. The Slice veneer factory was commissioned in July 2009 to allow the company obtain premium value on their forest product and leverage the unit cost of our overall operations.

The investment in the Slice veneer factory has allowed BLLC to be well positioned within the timber industry in terms of its operations and product lines. The company has an installed capacity that produces the following per month: Lumber -600 m³, Rotary veneer /Plywood-1,200m³ and Slice veneer -840,000 m² and is presently ranked among the first six (6) timber firms in the country today in terms of operating capacity. Over 80% of all products are exported to countries including Germany, United Kingdom, China, the United States of America and Nigeria.

The following make up BLLC's board of directors:

NAME	ROLE
Kojo Wireko-Brobby	Alternate Executive Chairperson
Ben Kufuor	Board Member
John M. Allotey	Board Secretary
Bernard Poku Kufuor	Managing Director
Comfort Joyce Wireko- Brobby (Mrs.)	Chairperson of the Board of Directors

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1. INTRODUCTION

This section contains the analysis of working capital management techniques, the policy framework for handling accounts receivables and account payables, and the challenges in managing the working capital of the Bibiani Logging and Lumber Company Limited.

It discusses the policy guidelines for working capital management and it also seeks to measure the effectiveness of these policies.

This chapter discusses results of the research work under the following headings:

- Background information of respondents
- Working capital management at the Bibiani Logging and Lumber Company.
- Inventory management
- Cash management
- Accounts receivable
- Accounts payable
- Working capital
- Current ratio (working capital ratio)
- Acid test ratio
- Challenges facing the company in terms of working capital management

4.2 BACKGROUND INFORMATION OF RESPONDENTS

As indicated in the methodology, seven employees of the company were sampled for the study. Three of them were from the finance and administration department, two from the production department and two procurement officers.

The questionnaires administered yielded an excellent response of a hundred (100%) percent, all seven respondents duly completed the questionnaires. Judging from the number of years they have spent in the company, all the respondents have been with the company for a while now and are very experienced in their respective roles.

Table 4.2.1 Age and gender of respondents

Seven people were sampled for the survey; there were five males and just two females in the sample. Only two of the respondents are above fifty (50) years, and they are all males. Three (3) out of the seven are aged between thirty-five and fifty (two males, one female). Those within the age range of 20-35 are two; one male, one female.

4.3 OVERVIEW OF WORKING CAPITAL MANAGEMENT AT THE BIBIANI LOGGING AND LUMBER COMPANY.

The survey responses indicate that there is a policy regulating working capital management in the company. There are two sections of the policy regulating working capital. The first section deals with the estimation of the level of total current assets an entity needs to hold; the second section of the policy concerns the relationships among types of assets and the way these assets are financed. Like typical working capital policy guidelines, the policy determines the appropriate level of cash, accounts receivable, and inventory that the firm should maintain.

The policy prescribes an inventory turnover period of one to fifteen (1-15) days. Though it was impossible to get a copy of the policy document, judging from the comments that the finance controller made on the questionnaires and at the interview sessions, the researcher has no doubt that in principle, the policy for working capital management comprehensively address the important aspects of working capital management. He explains that the policy on working capital covers levels of stock, the minimum cash and bank balances, accounts receivable, and accounts payable. The problem however, as indicated by the financial controller, is that policies on working capital management are loosely adhered to. The working capital policy further prescribes payment to creditors to be made within sixteen to thirty (16-30) days and a cash conversion cycle of less than fifteen (15) days.

4.4 INVENTORY MANAGEMENT

The word “inventory” has been defined in various ways. Ballou (2004) defines inventories as ‘stockpiles of raw materials, supplies, components, work in process, and finished goods that appear at numerous points throughout a firm’s production and logistics channels’. According to Chase, Jacob and Aquilino (2004) inventory is the stock of any item or resource used in an organization.

At Bibiani Logging & Lumber Company Limited, their inventory comprises of plywood, rotary veneer slice veneer, and kiln dried lumber. These are further categorized into raw materials, work-in-process (WIP) and finished goods.

According to Hugo et al (2002) the aim of inventory management is to hold inventories at the lowest possible costs.

The inventory turnover period is always a relevant aspect of management of inventory. Inventory can be costly to manage. From the same point of view, more liquid inventory means the company's cash flows will be better.

The Management of BLLC always wants to make sure that its inventory moves as fast as possible to minimize these costs and to increase cash flows. The inventory turnover period is calculated by dividing the ending inventory by the cost of goods sold for the period and multiplying it by 365.

Thus:

$$\text{Inventory turnover period} = \frac{\text{closing stock}}{\text{cost of goods sold}} * 365 \text{ days}$$

The table below shows an analysis of the inventory turnover period of the BLLC over the periods 2010, 2011, 2012 & 2013 financial years. (The balance sheets are attached in appendix II).

Table 4.4.1

YEAR	INVENTORY TURNOVER PERIOD
2013	59 days
2012	152 days
2011	179 days
2010	91 days

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

In an interview with the finance controller, he states that the company's inventory turnover period is fifteen (15) days as per the policy manual for working capital management. But as you can see from the table above, BLLC's stock turnover period for the period was 59 days for 2013, 152 days in 2012, 179 days in 2011, and 91 days in

2010. This means BLLC had enough inventories to last the next 59 days in 2013, 152 days in 2012, 179 days in 2011, and 91 days in 2011 days or BLLC will turn its inventory into cash in the days ascertained for the various years. Depending on the industry, this length of time might be short or long, but when compared with standard outlined in the policy document, these figures are just not acceptable. It paints a clear picture of inefficient inventory management. But comparatively, we see clearly that the company managed its inventory better in 2013 than all the other years with the worse year being 2011.

4.5 CASH MANAGEMENT

According to Mclaney (2000), cash is an important element and have a dual function aside just being an element of working capital. Cash provides a link among all the financial variables of an organization by serving as a medium of exchange and store of value.

The cash conversion cycle measures how long it takes a firm from paying for inventory and receiving cash as a result of sales. The cash conversion cycle is made up of three major components; inventory period, receivables period and payables period.

The cash conversion cycle formula is as follows:

$$\underline{\text{Stock turnover period} + \text{Debtors collection period} - \text{creditor's payment period}}$$

The cash cycle of BLLC evaluates the period in days it takes an entity to receive cash from acustomers from its initial cash outlay for stocks.

Table 4.5.1

Year	Cash conversion cycle
2013	98.8 days
2012	26
2011	41.1
2010	32

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

A short conversion period shows that money tied up in inventory took less time to recoup. This can also mean that a firm with short period of conversion has the chance to buy inventory and sell it and collect money from the credit customers in time.

The table above shows BLLCs capital conversion cycle. These would have to be compared to other companies in the timber industry over time to see if BLLCs cycle is reasonable or needs to be improved. Since there is none such kind to compare with, the researcher examines the cycle over the four years period under study. It is quite clear that the fastest cycle was experienced in 2012, followed by 2010 with 32 days , 2011 with a conversion cycle of 41.1 days and 2013 is the year with the highest conversion cycle .

4.6 ACCOUNTS RECEIVABLE

According to (Joshi, 2000) and Meyer et al (1992), accounts receivables consist of credit sales to credit customers. Sometimes a firm can give an extended credit to a customer as a way of trade credit.

In the case of BLLC, customer orders are received and paid for before production and therefore accounts receivables are not a normal occurrence in the operations of BLLC and so the main policy on accounts receivable is that customers always fully pay in advance before production is done. That notwithstanding, as indicated earlier, the policy guidelines are not strictly adhered to.

$$\text{Debtors collection period} = (\text{average debtors/Credit sales}) * 365$$

The table below shows the yearly accounts receivable and the debtors' collection period.

Table 4.6.1

YEAR	ACCOUNTS RECEIVABLE	DEBTORS DAYS
2013	873,141	53 days
2012	696,287	76 days
2011	813,421	52.1 days
2010	188,873	35 days

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

BLLC does not have of reputation of dragging customers to court over debts. Commenting on the company's debtors' collection period, one of the accounts clerk indicated that the standard debtors' collection period is 30 days. This is in not exactly what the financial statements suggest. From an analysis BLLCs balance sheet, BLLCs debtors' collection period was thirty-five (35) days in 2010, which stands out as the best in the period under review. In 2011, the debtors' collection period was 52.1 days, 76 days in 2012, and 53 days in 2013. An officer disclosed under condition of anonymity that sometimes BLLC resorts forcing payment from customers, increasing payment periods and reducing inventory at all levels. The researcher believes that only leads attacks the symptoms of working capital issues, and not the root causes of cash flow problems at the company.

4.7 ACCOUNTS PAYABLE

Western and Copeland (1989) refers to trade credit as a major short term credit which forms about one-third of current liabilities of firms outside the financial sector.

On accounts payable, the finance controller disclosed in a comment on his copy of the questionnaire that the BLLC's main policy is to pay cash for most items except extremely expensive items that are bought on credit and paid for at the end of 30 days or more depending on the amount of money involved. He added that, for instance, the policy guidelines stipulate that amount in excess GHC 20,000 are paid after 30 days or more and amounts less than GHC 20,000 are paid with 30 days.

In order get more information on accounts payable, from the company's financial statements, the researcher analyses the creditors' days in the table below:

Table 4.7.1

YEAR	CREDITORS	CREDITORS DAYS
2013	126860	33.2 days
2012	1,250,903	122 days
2011	810584	78.1 days
2010	861661	56 days

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

From the financial statements creditors' payment period was 32.2 days for 2013, 122 days for 2012, 78.1 for 2011 and 56 days for 2010.

This is in contrast with what the finance controller indicated in the questionnaire. Thus, there is the 30-day standard period for paying back creditors.

The creditors' payment period measures the average number of days a firm to pay its short term obligations as they fall due. How liquid a firm is determines its payment period.

This ratio helps firms to assess their liquidity position since their ability to settle their short term obligations help improve the credit worthiness of a company. A smaller number of days is almost always more favorable than a higher number of days. Short payment period means that a firm settles its obligations regularly enabling that new vendors get paid on time. Future credits can be negotiated using this advantage.

Different industries have their own standards on how they measure account payables period. The ratio can only be used effectively to compare firms from the same industry.

In examining the ratios for BLLC, the 2013's financial year creditors were paid much faster than the rest of the years. This indicated that the attempt made by BLLC in terms of faster payment to creditors was not enough. The gap between the ideal situation and what exists in reality is too wide.

4.8 WORKING CAPITAL

As proposed by Kaur (2010), the BLLC uses working capital management as a managerial accounting strategy which focuses on maintaining efficient levels of current assets and current liabilities to ensure that the firm has sufficient cash flow in order to meet its short-term obligations.

Another name for working capital is net working capital (NWC) which is defined by the equation; (Net) working capital = Current assets – Current liabilities

The table below presents BLLCs net working capital for the four years under review:

Table 4.8.1

YEAR	WORKING CAPITAL(GHC)
2013	2,215,426
2012	2,592,749
2011	2,320,051
2010	1,125,040

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

With no industry average to compare with, the researcher observes that in the year 2010, BLLC had lesser amount of capital (GhC 1,125,040) in circulation as working capital as compared with GhC 2,592,749 in 2012. In an interview the accountant, the researcher learns that the amounts of working capital do not adequately meet the day-to-day operational requirements of the company. Thus even with these seemingly huge figures, the company has a lot of liquidity crisis in relation to its operational demands.

4.9 CURRENT RATIO (WORKING CAPITAL RATIO)

The working capital ratio (WCR), or current ratio, measures how many times current asset can be used to pay current liabilities. This ratio is very vital to creditors because it gives them a picture collectability of their debts but for the purpose of this research, the researcher analyses the working capital ratio in order to gain a deeper understanding of the liquidity position of the BLLC.

The working capital ratio is calculated by dividing current assets by current liabilities.

4.10 ACID TEST RATIO

This ratio measures on the average number of times an entity can use its current assets without inventory to pay current liabilities.

Table 4.10.1

YEAR	CURRENT RATIO	ACID TEST RATIO
2013	18.46	9.55
2012	3.07	0.68
2011	3.86	1.20
2010	2.31	0.24

Source: analysis of BLLC's financial statements for 2010, 2011, 2012, and 2013

As indicated earlier, the company's accountant has not been happy with the liquidity position at all. From the table above however, BLLC's liquidity position looks very good because it is proven at least, in theory that a WCR of 1 indicates the current assets equal current liabilities. Normally, a ratio of 1:1 is considered safe zone for the company. This also implies a firm would have to convert its current assets to be able to pay its current liabilities.

A quick ratio of less than 1 is not safe for any firm because it serve an indication that the company cannot settle its current obligations when they fall due, hence a sign of inefficiency.

As you can see from the table above, BLLC's WCR is greater than one (1) in all four year because its debt is probably decreasing all throughout. This makes BLLC business less risky to new potential creditors. If BLLC wants to remain liquid, management should continue to control the current assets and current liabilities. That notwithstanding management should be careful not keep too much cash on hand when they can invest it elsewhere.

4.11 CHALLENGES FACING THE COMPANY IN TERMS OF WORKING CAPITAL MANAGEMENT

BLLC's major problem is lack of credit and delayed production resulting from logs shortage as well as excessive capital intensive nature of the business

The finance controller categorically stated that the company has problems setting priorities in terms of what expenses to pay and what to hold. For instance the company fails to identify production driven expenses and pay for them but rather spend on things that do not contribute to production; making working capital extremely difficult to manage.

The importance of working capital management is really downplayed at BLLC, from the comments of some of one of the production manager's; proper working capital management is 'no body's business.

Another problem is that BLLC has never had any training for its staff on working capital management. For this reason, some key personnel in charge of sales and production have no clue whatsoever about the importance of working capital management which is the major cause of their cash management crises.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 OVERVIEW

The chapter covers the summary of findings from the research, conclusions and recommendations that is likely to enhance the working capital management of Bibiani Logging & Lumber Company Limited.

5.1 SUMMARY OF FINDINGS

The company has a policy document regulating working capital management divided into two sections. The first section deals with the estimation of acceptable level of current assets for a firm; the second section of the policy concern the link between how assets are financed and their types.

The policy prescribes an inventory turnover period of one to fifteen (1-15) days. . The working capital policy further prescribes payment to creditors to be made within sixteen to thirty (16-30) days and a cash conversion cycle of less than fifteen (15) days.

From the analysis of BLLC's financial statements however, the stock turnover period was 79 days for 2013, 30 days in 2012, 67 days in 2011, and 53 days in 2010. This is way out of range from what the policy on working capital management prescribes and not too good for BLLC.

On accounts payable, the BLLC's main policy is to pay cash for most items except extremely expensive items that are bought on credit and paid for at the end of 30 days or more depending on the amount of money involved. "For instance amount in excess GHC 20,000 are paid after 30 days or more and amounts less than GHC 20,000 are paid with 30 days", says the finance controller. From the financial statements creditors' payment period is 32.2 days for 2013, 122 days for 2012, 78.1 for 2011 and 56 days for 2010.

The cash conversion cycle of BLLC measures how many days it takes the company to receive cash from a customer from its initial cash outlay for inventory. the fastest cycle was experienced in 2012, followed by 2010 with 32 days , 2011 with a conversion cycle of 41.1 days and 2013 is the year with the highest conversion cycle .

Regarding accounts receivable, the policy requires that in the case of BLLC, customer orders are received and paid for before production so the main policy on accounts receivable is that customers always fully pay in advance before production is done. But this certainly is not strictly adhered to. From an analysis BLLCs balance sheet, BLLCs debtors' collection period was thirty-five (35) days in 2010, which stands out as the best in the period under review. In 2011, the debtors' collection period was 52.1 days, 76 days in 2012, and 53 days in 2013.

BLLC's major problem is lack of credit and delayed production resulting from logs shortage as well as excessive capital intensive nature of the business

The importance of working capital management is really downplayed at BLLC, from the comments of some of the respondents; proper working capital management is not treated with the seriousness it deserves.

BLLC has never held any training for its staff on working capital management.

5.2 CONCLUSIONS

The BLLC has done pretty well in managing its working capital irrespective of the fact that the policy guidelines are not strictly adhered to. The study reveals that the techniques used in managing working capital work quite well but they need to be revised and followed with strict discipline the high working capital position in some cases

indicate that large sums are tied up in receivables and trading stock than short-term liquidity.

5.3 RECOMMENDATIONS

The researcher recommends that BLLC should focus on improved working capital management. Stocks, debtors and creditors can be influenced by the operations..

Again, suitable cash policies should be laid out by the Director in charge of Finance and also in each of the components of working capital. Such policies will enable the firm to raise funds as and when they need it and be able to maximize the amount of funds raised. With an improved working capital management, BLLC will be able to free up cash and thus can, for example, reduce their dependence on outside funding, or finance additional growth projects.

Lastly the management of BLLC must consider training key employees on proper and effective working capital management. This will lessen the burden on the finance department to ensure compliance with standards set to help improve working capital management.

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APPENDIX

KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BUSINESS

Questionnaire on working capital management of Bibiani lumber and logging company limited (BLLC)

This study is being conducted in partial fulfillment of the requirements for the award of a Master of Business Administration. All information received would be used only for academic purposes and treated with strict confidentiality.

Please tick or write where appropriate.

1. Gender: Male [] Female []

2. Age: Below 20 [] 20-35 [] 35-50 [] Above 50 []

3. Your current level of Education

(a) PhD [] (b) Master's Degree [] (c) First Degree [] (d) HND [] (e) others (specify)

4. How long have you worked with Bibiani Lumber and Logging Company Limited (BLLC)

1year [] 1 year [] 2-5 years [] 6-10 years [] Above 10 years []

5. Number of years of experience in working capital management
Less than 1 [] (b) 1-5 [] (c) 6-10 [] (d) 11- 15 [] (e) 16-20 []

(f) 21 and above []

6. Job title

7. Do you have a policy governing Working Capital Management? Yes [] No []

8. Is the policy readily available to you? Yes [] No []

9. Which of these does the policy focus on?

a. collection of accounts receivable [] b. payment of creditors []

c. maintaining optimal level of stock [] d. maximizing cash in hand []

e others(*specify*).....

10. **Please use the following scale to indicate your response:**

1=Strongly Disagree 2= Disagree 3= Undecided 4= Agree 5= Strongly Agree

		1	2	3	4	5
A	I understand and appreciate the concept of working capital management					
B	I understand the policy for working capital management					
C	The policies on Working Capital Management are strictly adhered to at BLLC					
D	The policy for WCM comprehensively address the important aspects of WCM such levels of stock, accounts receivable, and accounts payable.					
E	The emphasis of working capital management have on liquidity					

11. What is your inventory turnover period?

1 – 15 days [] 16 – 30 days [] over 30 days [] Not sure []

12. What percentage of your total expenses represents storage cost?

1 – 5% [] 6 – 10% [] 11 – 15% [] above 15% [] Not sure []

13. How long does it take BLLC to pay its creditors?

1 – 15 days [] 16 – 30 days [] Over 30 days [] Not sure []

14. Do you understand what a cash conversion cycle is? Yes [] No []

15. If yes, what is BLLCs cash conversion cycle?

16. Do you offer discount for prompt payment? Yes [] No []

17. Do you think effective working capital management has any bearing on the profitability of the BLLC?

Yes [] in what way?

.....
.....

No [] why?

.....

18. What are the main problems confronting BLLC as far as WCM is concerned?

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.....
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19. What are the main policies regulating accounts receivables and accounts payable?

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20. Do you think how working capital is managed at BLLC contributes positively to profitability? Yes [] No []

21. Do you have any recommendations for BLLC to help improve its working capital management?

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Thanks for your cooperation!