

**THE ASSESSMENT OF WORKING CAPITAL MANAGEMENT. A CASE STUDY OF
ARABA AFRAM ENTERPRISE**

by

Abraham, Yenu Lambon

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**L. BRARY
KWAME NKRUMAH UNIVERSITY OF
SCIENCE AND TECHNOLOGY
KUMASI-GHANA**

DECLARATION

I hereby declare that I have personally, under the supervision of Mr. J.M. Frimpong of the KNUST, school of business, undertaken this study. And that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledge has been made in the text.

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Lambon, Abraham Yenu (PG 1879607)

Student Name and ID number

Signature

Date

"I declare that I have supervised the student in undertaken the study submitted herein and approve it for assessment."

Mr. J.M. Frimpong

Date

Supervisor

Certified by

Dean of KNUST School of business

DEDICATION

I dedicate this write up to my dear family

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ACKNOWLEDGEMENTS

No great work is accomplished without the help of others. My deepest appreciation goes to the Almighty God who has watched over me all these years. I owe my greatest gratitude to the numerous authors whose literatures I used. I value their thoughts and contributions about their work.

Particular gratitude goes to my supervisor, Mr. J.M. Frimpong, whose encouragement, dedication and care, in spite of his tight schedules helped to conduct this study.

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I would like to acknowledge my parents Mr. Kangur Lambon and Madam Banchauk Konduuk for their prayers, encouragement and support throughout the work of this project. They deserve special praise and thanks.

I cannot conclude without expressing my deep appreciation to Mrs. Elizabeth Atsonglo and all the staff of Araba Afram Enterprise for their support and patience and the release of information for my work.

To all I say God Bless You.

ABSTRACT

This study assesses the working capital management of Araba Afram Enterprise, a small and medium-sized enterprise in Obuasi, Ghana. The aim of this study is to examine and evaluate the working capital management in Araba Afram Enterprise and analyze the impact of working capital management of the company over a period of five years. Little attention has been paid to SMEs working capital management, despite the fact that many companies see such activities at the core of their profitability.

The study examines the implications of company's working capital management for its valuation. Consistent with industry surveys, we find evidence that firms over-invest in working capital. Given this evidence, it then focus on the factors which influence company working capital management. The research find that company practices, company size, future company sales growth, the proportion of current assets and liabilities influence the efficiency of a company's working capital management. Overall, the evidence suggests that managers do no pay particular attention issues of working capital management and not respond positively to incentives and monitoring in managing their company working capital.

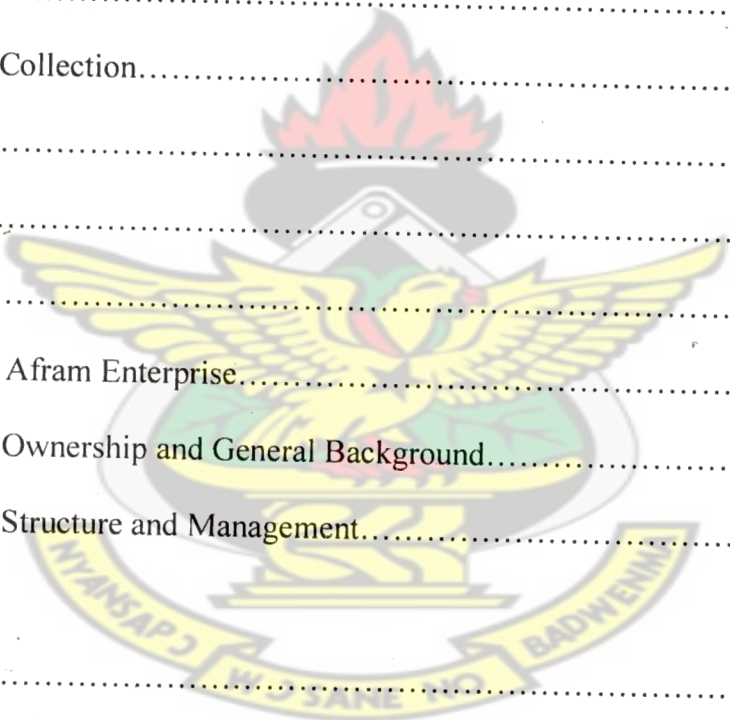
The theoretical framework for this study consists of the nature of working capital, working capital management, financial ratios analysis etc. From these, the quantitative investigation consists of the statistical analysis of key figures which are calculated from the financial statements of the company. The Implications of the detected findings are highlighted with respect to their potential utility for the achievement and maintenance of a company's working capital.

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CHAPTER ONE

1.0 Introduction

The purpose of this chapter is to describe problem of the study, to define its objectives and discuss the background of the study. Further, the chapter enlightens the justification of the study, the scope of the study and the limitation is the study as well. Finally the organization of the study is also presented in this chapter.

1.1 Background of the study.

The small and medium enterprises (SMEs) being a “key source of dynamism, innovation and flexibility in advanced industrialized countries, as well as in emerging and developing economies” their well-being and continuity are crucial to the macro economic development of any country around the globe.

SMEs constitute an important element of African and for that matter the Ghanaian economy. They employ approximately 75% of the work force and contribute considerably to the valued creation of every economy. However SMEs exhibit significant exit rates in the economy. Statistics show that, about 20% of newly established enterprises do not survive their first year. It obvious that SMEs play a vital role in the development of the economy, yet many fail to achieve their aim. There are several factors which lead to this phenomenon. Access to finance is one of the most significant hindrances for the establishment and development of SMEs. The main sources of the finance are their retained earning, informal savings and short term loans which are normally not very predictable and secure. According to Aryetey et al, (1994), Ghanaian SMEs face difficulties in assessing finance, hampers their emergence and eventual

growth. SMEs display significant gaps in information and skills to access external funds which are more current in the emerging economy. The challenges faced by SMEs are partially connected to working capital management. Working capital management is of great importance for SMEs in order to avoid financial bottlenecks since the availability of external funds are quite low. The management of working capital includes managing cash, inventories, accounts receivable and account payable. Since the following working capital processes are interrelated, decisions made within each one of the disciplines can impact on the other processes and ultimately affect the overall financial performance of the SMEs. Internet source: <http://utrinyorl.com/2t4fxs>

1.2 Statement of the problem

In spite of the immense and increasing roles of SMEs for the Ghanaian economy and their prevailing financial problems stated above, not much financial management theory exists with special regards to SMEs. Most of the theories in this field of study related to corporate financial management. This also applies to empirical studies which are mainly conducted in large companies. Though financial management in SMEs and large companies has strong similarities; there is a significant disparity which substantiates the study of financial management in SMEs.

Since SMEs experience difficulties in accessing external funds they rely heavily on internally generated funds. Therefore working capital management plays a very important role in financing SMEs. This assumption is confirmed by the fact that working capital related problems are cited among the most significant reasons for the failure SMEs. As working capital management is related to short-term financial planning and cash level in

general, represents a significant indicator for short-term performance, the impact of the first on the later which constitute this study's topic.

1.3 Objectives of the study

The purpose of this study is to examine and evaluate the working capital management in Araba Afram Enterprise over a period of five years (2004 to 2008), analyze the impact of working capital management of the company. The specific objectives and focus of the study are as follow:

1. To identify the working capital strategy of the company.
2. To examine and evaluate accounts receivables management and its impact on working capital management.
3. To examine the inventory management pattern in company during the period.
4. To analyze cash position and the efficiency with which it is managed during the period under the study.
5. To assess the current liability positions and the efficiency with which the overall working capital is managed.
6. To examine and evaluate the company's sources of financing
7. To make appropriate recommendations on working capital management processes

1.4 Justification of the study.

The small and medium enterprise sector has become very important for many economic activities in the emerging economies because of its special features of capital sparing and labour intensiveness. In fact, the sector has a major role to play in developing nations which suffer due to low capital formation. Government of Ghana took several measures for the promotion and smooth functioning of this sector. Besides these, Government of Ghana carefully planned the development of the small and medium enterprise sector in the country. It has established venture capital fund and spend millions of cedis for their development in recent times.

Despite several of these interventions, the SMEs in Ghana have not been doing well owing to different problems faced by them at the promotional and operating stages. This has mostly attributed to the working capital management problems. Proper working capital management is to ensure that the right amount of money and line of credit are available to the business at all times.

Cash is the life-blood of any business no matter how large or small. If a business has no cash and there are no ways of getting any cash, it will go out of business. In the a d same vain, if a business has no idea of its cash level and working capital position it could be in serious financial trouble.

In spite of these recognitions, not much research has been done relating to how working capital should be managed by SMEs hence, the need for this research to be conducted and the findings made available for the target leadership. It is also for the proximity of the case study and accessibility of information. Again it will contribute to the knowledge in

the field related. Finally it will also fulfill the requirements for the award of the MBA degree at KNUST School of business.

1.5 Scope of the study.

The study has been undertaken to cover a company of Araba Afram Enterprise in Obuasi. This is because of limitations of times and resources to cover other SMEs in Obuasi. The study shall focus on the key components of working capital which comprises cash, inventory, accounts receivables and payables and their impact on working capital management of the company.

1.6 Limitation of the study

The researcher encountered several limitations such as time constraints, financial and other material resources in the course of the study. The academic schedule in which the study was conducted was not favorable for easy completion. There was inadequate time period to successfully cover all respondents to administer the research questions and visit other locations of the company.

Financial and economic difficulties in the country affect the study processes. Every activity in the study was financed single handedly by the researcher without financial support from the university. These collectively affected the research work. However, with much patience and perseverance the author succeeded in coming out with all the relevant information vital for study.

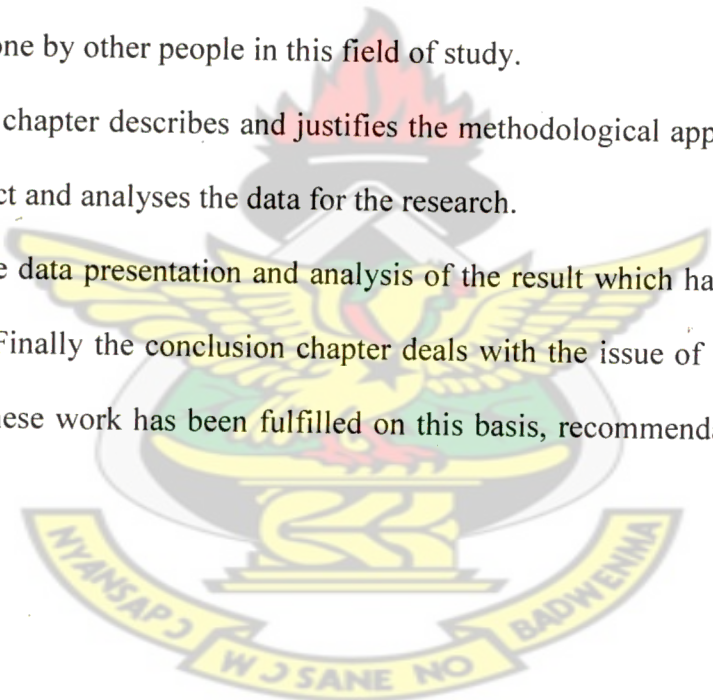
1.7 Organization of the study.

The study is organized into five chapters. Chapter one is the introductory chapter which consist of background for the study, Statement of the problem, justification of the study, the objectives of the study, scope of the study and limitation of the study.

The second chapter is a review of relevant literature which involves the theoretical frame work of the study. This gives a general understanding and in-depth knowledge of working capital management processes and concepts from different publications such as text books, articles, magazines, technical papers and journals. It also includes empirical studies of work done by other people in this field of study.

The methodology chapter describes and justifies the methodological approach which has been used to collect and analyses the data for the research.

Chapter four is the data presentation and analysis of the result which has been extracted from the dataset. Finally the conclusion chapter deals with the issue of whether the aim and purposes of these work has been fulfilled on this basis, recommendations for future studies are made.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the literature of the works of other researchers and their arguments on working capital management.

2.1 Conceptual Framework of the Study

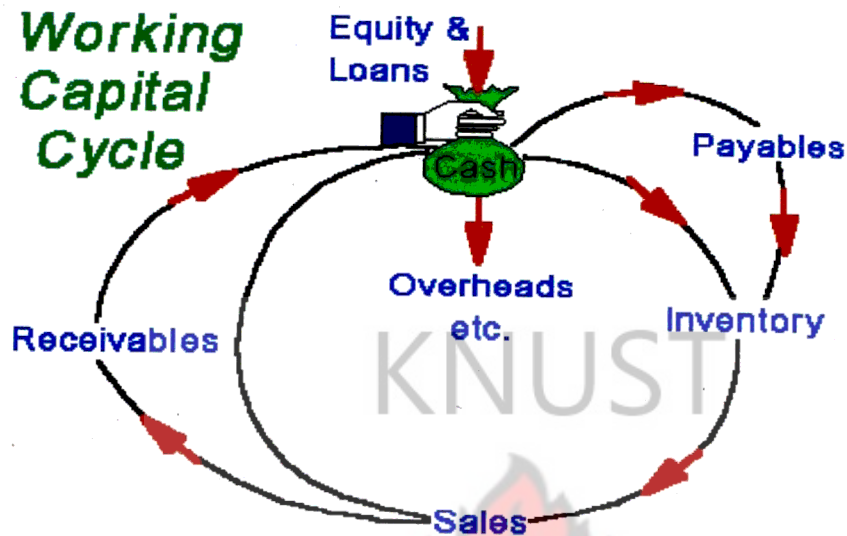
Working Capital also referred to as net working capital according to Watson and Anthony (2007), is the difference between a company's current assets and liabilities.

The term Working Capital, in this context, refers to the amount of capital which is readily available to meet the recurring costs of operations of an organization. It is the difference between the resources in cash plus current assets readily convertible into cash and organisational commitments for which cash will soon be required (current liabilities). This difference, often referred to as Net Working Capital, is a qualitative concept, which indicates:

- a) The liquidity of an organisation; and
- b) The extent to which working capital needs may be financed by permanent and long term sources of funds.

It is therefore important for organisations to maintain an optimum balance of each of the working capital components to ensure a continuous flow of cash into the business. (Gamble, R. 2003) This critical role is portrayed in Figure 1 below, which is often referred to as "working capital/operating cycle".

Figure 1



Note: Inventory includes Raw Materials, Work-in-Progress and Finished Goods

(Source: Managing Working Capital-www.planware.org/workcap.htm).

2.2 Financial Ratio Analysis

According to Groppelli et al, (2000), a financial ratio is a ratio of two selected numerical value taken from an enterprise's financial statements. There are many standard ratios used to try to evaluate the overall financial condition of an organization. Financial ratios may be used by managers within a firm, by current and potential shareholders of a company and its creditors.

Values used in calculating financial ratios may be taken from the balance sheet, income statement, cash flow statement and rarely statement of retained earnings. These comprise the company's "accounting statement" or financial statements.

Ratio may be expressed as a decimal value, such as 0.10, or the equivalent percent value, such as 10%. Some ratios are usually quoted as percentages, especially ratios that are always less than 1, while others are usually quoted as decimal numbers, ratios that are usually more than 1, are also called multiples.

Financial ratios quantify many aspects of a business and are an integral part of financial statement analysis. Financial ratios are categorised according to the financial aspect of the business which the ratio measures. Liquidity ratios measure the availability of cash to pay debt; activity ratios measure how quickly a company converts non-cash assets to cash assets. Profitability ratios measure the company's use of its assets and control of its expenses to generate an acceptable rate of return. Market ratios measure investor response to owning a company's stock and the cost of issuing stock.

Financial ratios allow for comparisons;

- Between companies
- Between industries.
- Between different time periods for one company.
- Between a single company and its industry average.

Williams et al, (2008) stipulate that "The ratios of firms in different industries, which face different risks, capital requirement and competition, are not comparable.

Financial ratios are based in summarised data presented in financial statements. This summarised data is based on the accounting method and standards used by the organization."

2.2.1 Various types of Ratios

Using ratios for analysing financial performance, computation and interpretation is assisted if the analyst uses some sort of analytical framework. According to Watson et al, a systematic approach to ratio analysis should initially establish a broad picture, before focusing on areas of concern. A systematic approach to ratio analysis is also facilitated by using a ratio pyramid. The ratios have been divided into groups which are linked to particular areas of concern. There is a wide spread agreement on the main ratios included in each category, even though the same category may be given different name by different authors.

- Profitability ratios: return on capital employed, net profit margin, net asset turnover and gross profit margin.
- Liquidity ratios: current ratio and quick ratio.
- Efficiency/Activity ratios: debtor days, creditor days and stock turnover.
- Investor ratios: return on equity, dividend per share, earning per share, dividend cover, price/earnings ratio, payout ratio, dividend yield, earnings yield etc.

2.2.2 Profitability Ratios

Profitability ratios measure the company's use of assets and control of its expenses to generate an acceptable rate of return. Watson et al, (2007), defines profitability ratios as the parameters that indicate how successful the managers of a company have been in generating profit.

Return on capital employed is often referred to as the primary ratio. It determines how much a firm has been able to generate out of its capital employed.

Return on capital employed (ROCE) =

Profit before interest and tax / capital employed x 100.

This ratio relates the overall profitability of a company to the finance used to generate it.

It is also the product of net profit margin and asset turnover.

ROCE = Net profit margin X Asset turnover.

Profit before interest and tax is often called the operating profit. The meaning of capital employed can create confusion (Watson et al). But it is simply total assets less current liabilities (or shareholders' fund plus long-term debt, which has the same meaning). This ratio is clearly sensitive to investment in fixed assets, to the age of fixed assets and to when assets were last revalued. There is a close link between ROCE and accounting rate of return.

Net profit margin =

Profit before interest and tax / Sales X 100

This ratio also called the operating profit margin indicates the efficiency with which costs have been controlled in generating profit from sales. It distinguishes between operating costs, administrative costs and distribution costs. A fall in ROCE may be due to a fall in net profit margin.

Net asset turnover =

Sales or turnover / Capital employed

Capital employed is defined in the same way as for ROCE that is total assets less current liabilities, and so the asset turns over is also sensitive to fixed assets values. This asset gives a guide to productive efficiency.

$$\text{Gross profit margin} = \text{Gross profit} / \text{Sales} \times 100$$

This ratio shows how well costs of production have been controlled, as opposed to distribution and administrative costs.

Williams et al (2008), also defines gross profit margin as net sales less cost of goods sold divided by net sales.

2.2.3 Liquidity Ratios

Liquidity ratios measure the availability of cash to pay debt.

This category includes the following ratios:

$$\text{Current ratio} = \text{Current assets} / \text{Current liabilities.}$$

This ratio measures a company's ability to meet its financial obligations as they fall due. It is often said that the current ratio should be two-to-one, but what is normal will vary from industry to industry; sector averages are a better guide than a rule of thumb.

Quick ratio = Current assets less stock / Current liabilities

It is argued that the current ratio may overstate the ability to meet financial obligations because it includes stock in the numerator. The quick ratio compares liquid current assets with short term liabilities. The ratio should be one is to one.

2.2.4 Efficiency/Activity Ratios

These ratios show how efficiently a company has managed short term assets and liabilities, that is working capital and they are closely linked to liquidity ratios.

Debtor days = Debtor / Credit sales X 365

The value of credit sales is usually not available and it is common for sales to be used as substitute. The debtor day ratio gives the average period of credit being taken by customers. If it is compared with a company's allowed credit period, it give an indication of the efficiency administration.

Creditor days = Trade creditors / Credit purchases (cost of sales) X 365

Trade credits should compare with credit purchases, but as this information is not always available, cost of sales is often used instead. The creditor days' ratio gives the average time taken from suppliers of goods and services to receive payment.

Stock turnover = Stock / Cost of sales X 365

This ratio shows how long it takes for a company to turn its stock into sales. Several other ratios can be calculated by separating the total stock figure into its components; raw

materials, work-in-progress and finished goods. The shorter the stock turnover ratio, the lower the cost of the company of holding stock. The value of this ratio is very dependent on the need for stock and so will vary significantly depending on the nature of a company's business.

Cash Conversion Cycle

The cash conversion cycle also called the operating or working capital cycle is found by adding stock turnover and debtor days and then subtracting creditor days. It indicates the period of time for which working capital financing is needed. The longer the cycle, the higher the investment in working capital.

Cash Conversion Cycle (CCC) = (Stock turnover + Debtor days) – Creditor days.

2.3 The Nature of Working Capital

According to Terry H. (2008), the management of working capital includes managing cash, inventories, accounts receivable, accounts payable and short-term financing. Since the following five working capital processes are interrelated, decisions made within each one of the disciplines can impact the other processes, and ultimately affect your company's overall financial performance.

Cash Management:

Cash Management is the efficient management of cash in a business for the purpose of putting cash to work more quickly and to keep the cash in applications that produce income. The use of banking services, lockboxes and sweep accounts, provide both the rapid credit of funds received, as well as, interest income generated on deposited funds. The lockbox service includes collecting, sorting, totaling, and recording customers' payments while processing and making the necessary bank deposits.

A sweep account is a prearranged, automatic "sweep" – by the bank - of funds from your checking account into a high interest-bearing account.

Inventory Management:

Inventory Management is the process of acquiring and maintaining a proper assortment of inventory while controlling the costs associated with ordering, storing, shipping, and handling. The use of an Economic Order Quantity (EOQ) system and the Just-In-Time (JIT) inventory system provides uninterrupted production, sales, and/or customer-service levels at the minimum cost. The EOQ is an inventory system that indicates quantities to be ordered - which reflects customer demand – and minimizes total ordering and holding costs. EOQ inventory system employs the use of sales forecasts and historical customer sales volume reports. The JIT inventory system relies on suppliers to ship product for just-in-time arrival of raw material to the manufacturing floor. The JIT system reduces the amount of storage space required and lowers the dollar level of inventories.

Accounts Receivable Management:

Accounts Receivables Management enables you, the business owner, to intelligently and efficiently manage your entire credit and collection process. Greater insight into a customer's financial strength, credit history, and trends in payment patterns is paramount in reducing your exposure to bad debt. While a Comprehensive Collection Process (CCP) greatly improves your cash flow, strengthens penetration into new markets, and develops a broader customer base, CCP depends on your ability to quickly and easily make well-informed credit decisions that establish appropriate lines of credit. Your ability to quickly

convert your accounts receivable into cash is possible if you execute well-defined collection strategies.

Accounts Payable Management:

Accounts Payable Management (APM) is not simply, "paying the bills." The APM is a system/process that monitors, controls, and optimizes the money that a company spends. Whether or not it is money that is spent on goods or services for direct input, such as raw materials that are used in the manufacturing of products, or money spent on indirect materials, as in office supplies or miscellaneous expenses that are not a direct factor in the finished product, the objective is to have a management system in place that not only saves you money, but also controls costs.

Short-Term Financing:

Short-Term Financing is the process of securing funds for a business for a short period, usually less than one year. The primary sources of short-term financing are trade credit between companies, loans from commercial banks or finance companies, factoring of accounts receivable and business credit cards.

Trade credit is a spontaneous source of financing in that it arises from ordinary business transactions. In a prearranged agreement, suppliers ship goods or provide services to their customers, who in turn, pay their suppliers at a later date.

2.4 The Concept of Working Capital

Pandey, I.M. (1991) held the view that, Working Capital (gross) is defined as the sum of stocks, accounts and bills receivable, cash and marketable securities. He states that “the gross working capital concept focuses attention on two aspects of current assets management as: optimum investment in current assets and financing current assets.” (Pandey 1991, p.808)

Choyal (1991) describes the concept of Working Capital and its importance as “a corporation’s life blood that flows through the veins and arteries of the structure. It engages every part of the structure, gives courage and morale to the brain (management) and muscles (personnel), digest to the best degree, the raw material used by its constraints and regular flow and returns to the heart (cash flow) for another journey and so on. When Working Capital slows up, the financial bodies have values only as junk.” This description was corroborated and quoted by Philip McCosker, in his article titled “The Importance of Working Capital”, which appeared in the March 2003 issue of *The Student Accountant*, the ACCA students’ magazine.

Gamble (2003), in his article “Hoarding Liquidity”, comments that organizations face liquidity problems because their working capital is tied up receivables, payables and inventory. He suggests that effective management of all the elements of working capital could release adequate funds that will reduce organizations’ over reliance on external sources for working capital financing.

Net working capital (often referred to simply as Working Capital) is the difference between a company's short-term assets and liabilities. The principal short-term assets are cash, accounts receivable (customer's unpaid bills) and inventories of raw materials and finished goods. The principal short-term liabilities are accounts payable (bills that you have not paid), (Brealey and Myers, 2003, p. 121). Further to the above, they maintain that, Working Capital summarises the net investment in short term assets associated with a firm, business or a project with most of its important components being inventory, accounts receivable and accounts payable (Brealey and Myers, 2003, p.126)

2.4.1 Working Capital / Operating Cycle

The working capital cycle, and its modification to the cash conversion cycle (Richards and Laughlin, 1980) reflects the net time interval between actual cash expenditures on an organisation's purchase of productive resources and the ultimate recovery of cash receipts from product or service sales. Shin and Soenen (1998) point out that a corporation's working capital is the result of the time lag between the expenditure for the purchase of raw materials and the collection from the sale of finished goods. It establishes the time required to convert a cedi (¢) of cash disbursements back into a cedi (¢) of cash collections from an organisation's regular course of operations. Gitman (1974) argued that the cash conversion cycle was a key factor in working capital management. As such, it involves many different aspects of corporate operational management: management of receivables, management of inventories, management and use of trade credit, etc.

Actually, decisions about how much to invest in the customer and inventory accounts, and how much credit to accept from suppliers, are reflected in the firm's cash conversion cycle, which represents the average number of days between the date when the firm must start paying its suppliers and the date when it begins to collect payments from its customers. If an organisation can accelerate the movement of cash through the cycle by effective inventory, payables and receivables management, the organisation will generate more cash and will need to borrow less to fund working capital, thereby reducing interest costs and increasing profits.

Previous studies have used measures based on the cash conversion cycle to analyze whether shortening this cycle has positive or negative effects on the firm's profitability. As pointed out by Soenen (1993), cash conversion cycle management tries to collect cash inflow as quickly as possible, and to postpone cash outflow as long as possible. The result will be the shortening of the cash conversion cycle.

2.4.2 Working Capital Policy and Practices

According to Watson and Anthony (2007), because working capital management is so important, a company will need to formulate clear policies concerning the various components of working capital. Key policy areas relate to the level of investment in working capital for a given level of operations and the extent to which working capital is financed from short-term funds such as bank overdraft, they added. They further stated that, a company should have working capital policies on the management of stock, debtors, cash and short-term investment in order to minimise the possibility of managers making decisions which are not in the best interests of the company.

Most empirical studies relating to working capital management and profitability support the fact that aggressive working capital policies enhance profitability. In particular, Jose *et al.* (1996) provide strong evidence for US companies on the benefits of aggressive working capital policies. Shin and Soenen (1998) analyze the relation between the net trade credit and profitability for a sample of firms listed on the US stock exchange during the period 1974-1994. Their results also show strong evidence that reducing the net trade credit increases firms' profitability. However, this relationship is not found to be very strong when the analysis is at the level of a specific industry (Soenen, 1993). More recently, Deloof (2003) analyzed a sample of large Belgian firms during the period 1992-1996. His results confirm that Belgian firms can improve their profitability by reducing the number of days accounts receivable are outstanding and reducing inventories. Moreover, he finds that less profitable firms wait longer to pay their bills. Finally, Wang (2002) analyzes a sample of Japanese and Taiwanese firms from 1985 to 1996, and finds that a shorter cash conversion cycle is related to better operating performance.

These results can be partially explained by the fact that there are industry benchmarks to which firms adhere when setting their working capital investment policies (Hawawini *et al.*, 1986). Thus, firms can increase their profitability by reducing investment on accounts receivable and inventories to a reasonable minimum, indicated by the benchmarks for their industry. Marfo-Yiadom (1996) in a study conducted on WCM practices in medium-sized companies in Ghana, noted that, the issues of WCM have been understood and tackled by some 85 percent of the firms considered for the study and that has accounted significantly, for their survival in such an "inflationary world" of business. The other 15

percent though understand the relevance of WCM; they have not done enough to seriously address the issues.

In his related study on current cash management, Marfo-Yiadom (2002) noted that, of the forty firms examined in the Accra-Tema metropolitan area of Ghana, the survey evidence observed the fact that those firms surveyed maintained cash management systems in the best possible manner and considered such practices as being crucial by these firms.

2.5 Working Capital Management

2.5.1 Meaning of Working Capital management (WCM)

Decisions relating to working capital and short term financing are referred to as working capital management. These involve managing the relationship between a firm's short-term assets and its short-term liabilities. The goal of Working capital management is to ensure that the firm is able to continue its operations and that it has sufficient money flow to satisfy both maturing short-term debt and upcoming operational expenses.

Source: <http://www.my-investment.com/capitalmgm.aspx>

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 benefits in terms of profitability (Hill, 1993). 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. In their study, (Van Horne and Wachowicz, 1992) noted that, the administration of current assets and the financing

(especially current liabilities) needed to support current assets is the meaning of working capital management. Working Capital management involves financial decision-making, planning and control activities related to each of the above three elements of Working Capital (McMenamin, 1999, pp 578-580).

A study conducted by the treasury department of the New Zealand economy in 1990 on the treatment of Working Capital resolved that: Working Capital Management takes place on two levels: where ratio analysis can be used to monitor overall trends in Working Capital and to identify areas requiring closer management; and the individual components of Working Capital can be effectively managed by using various techniques and strategies though this depends on the department's unique mix of Working Capital components.

The study's findings among others noted that, "Working Capital constitutes part of the Crown's investment in a department. Associated with this, is an opportunity cost to the Crown i.e. money invested in one area may "cost" opportunities for investments in other areas. If a department is operating with more working capital than is necessary, such an over-investment represents an unnecessary cost to the Crown". However, in conclusion, the study noted, working capital management is not an end in itself, rather it is an integral part of the departments overall management. The needs of efficient working capital management, it noted, must be considered in relation to other aspects of the department's financial and non-financial performance (www.treasury.govt.nz).

2.5.2 Working Capital Management Components

There are streams of research on individual aspects of working capital management (Peterson and Rajan, (1997)), but such literature ignores the joint effect of these individual policies, which is often a focal point of corporate concern. As the knowledge base of WCM grew, more complex models were developed, linking together two or more WCM components. For this reason, it is important to discuss the prior literature that focuses on overall working capital management: its causes and consequences. Stone (1973, pp 711-729) identified the natural integration of cash and credit management. Schiff and Lieber (1974, pp 133-141) and Shapiro (1973, pp 37-46) developed interrelationships that exist between receivables and inventories, while Bierman, Chopra and Thomas (1975, pp 119-128) focused on the linkage between optimal Working Capital and Capital structure.

By 1988, Gentry had recognised that, the long-run theories on WCM did not take into account the uncertainties created in a firm's day-to-day operations that directly affect the creation or destruction of value. In contrast, the practice of WCM is based on a large number of real variables that are changing almost continuously. Real value is based on the success of short-run resource management (Gentry, 1988, p.43). He continues, "The need for integrating Working Capital information into a large system was suggested by several authors throughout the 1960's and 1970's."

However, it was not until 1980's that Morris (1993, pp 533-545) recognised the need to incorporate cash inflows and outflows into a single period CAPM valuation framework. Beranek (1963) created two classic models (Control Theory Models, Dynamic Programming Models, inter-temporal CAPM, simultaneous Equation Models and simulation models) for managing receivables and cash. Shortly thereafter, Walker (1964, pp 21-35) developed a series of propositions that related the policies of WCM to the amount of risk that management was prepared to assume. In the mid 1970's, Cohn and Pringle (1980, pp 35-42) incorporated capital into CAPM because working capital decisions are related to the asset returns, which in turn, are related to the market portfolio.

Knight (1972, pp 33-40) and Smith (1980, pp. 609-624), suggested that WCM should be integrated into the mainstream theory of finance and not be treated as an isolated special case. However, Brealey and Myers (1988, p 270) state "we can not successfully tackle the problem of Working Capital Management until we have a theory of liquidity. In a related view, Miller (1986) concentrated his development of a systems view of short-term investments management and cash management support systems with the cash balance, bank compensation, and payment scheduling and portfolio composition. The objective of the integration, he said, is to reflect the interdependence that exists among the investment and cash management activities.

2.5.3 The importance of Working Capital management

Working capital management is important because of its effects on the firm's profitability and risk, and consequently its value (Smith, 1980). Specifically, working capital

investment involves a trade-off between profitability and risk. Decisions that tend to increase profitability tend to increase risk, and, conversely, decisions that focus on risk reduction will tend to reduce potential profitability. Excessive investment in working capital ties up vital cash resources; inadequate investment in working capital risks insolvency.

Dow Jones (2003), in his business brief to the Securities and Exchange Commission (SEC) of New York, on the topic “Cash Sources Might Dry Up by Month’s End” said that even an organization that has billions of pounds in fixed assets will quickly find itself in bankruptcy court if it can not pay its bills as they fall due. Inadequate working capital therefore leads to financial pressure on an company, increased borrowing, and late payments to creditors- all of which result in a lower credit rating. A lower credit rating has implications of banks charging a higher interest rate, which can be very expensive to the company over time. Adequate working capital therefore places a company on a sound financial footing to meet all maturing debts and increases its turnover and profits to ensure a maximum returns to shareholders, comments Jones. (Source: The Wall Street Journal of February 18, 2003)

2.5.4 Financing of Working Capital

The most cost effective way of financing working capital is by optimizing working capital management practices in an organization, says (Payne, S., 2002). While working capital improvements will not generate cash as quickly as tapping a line of credit, companies can unlock dramatic amounts of money from their operations in surprisingly

short periods of time, with no obligation to pay back, emphasizes Payne. (“Working capital optimization can yield real gains”; The Financial Executive Journal; Morristown, US; September 2002)

2.5.5 The Impact of Working Capital Management on the profitability and liquidity of a company.

Working capital management is a significant area of financial management, and the administration of working capital may have an important impact on the profitability and liquidity of the firm (Shin and Soenen, 1998). Shin and Soenen (1998) examine the relation between different accounting profitability measures and net trade cycles, a summary efficiency measure of a firm’s working capital management. Shin and Soenen’s evidence implies that firms that manage their working capital more efficiently (i.e., shorter net trade cycle) experience higher operating cash flow and are potentially more valuable. However, this last implication does not necessarily follow because firms that have longer net trade cycles are also investing in short-term assets which may pay off in subsequent periods. So the valuation issue is whether such investment earns a return above the cost of capital.

Firms can choose between the relative benefits of two basic types of strategies for net working capital management: they can minimize working capital investment or they can adopt working capital policies designed to increase sales. Thus, the management of a firm has to evaluate the trade-off between expected profitability and risk before deciding the optimal level of investment in current assets.

On the one hand, minimizing working capital investment (aggressive policies) would positively affect the profitability of the firm, by reducing the proportion of its total assets in the form of net current assets. However, Wang (2002) points out that if the inventory levels are reduced too much, the firm risks losing increases in sales. Also, a significant reduction of the trade credit granted may provoke a reduction in sales from customers requiring credit. Similarly, increasing supplier financing may result in losing discount for early payments. In fact, the opportunity cost may exceed 20 %, depending on the discount percentage and the discount period granted (Wilner, 2000; Ng *et al.*, 1999)

On the other hand, and contrary to traditional belief, investing heavily in working capital (conservative policy) may also result in higher profitability. In particular, maintaining high inventory levels reduces the cost of possible interruptions in the production process and of loss of business due to the scarcity of products, reduces supply costs, and protects against price fluctuations, among other advantages (Blinder and Maccini, 1991). Also, granting trade credit favours the firm's sales in various ways. Trade credit can act as an effective price cut (Brennan *et al.*, 1988; Petersen and Rajan, 1997), incentivizes customers to acquire merchandise at times of low demand (Emery, 1987), allows customers to check that the merchandise they receive is as agreed (quantity and quality) and to ensure that the services contracted are carried out (Smith, 1987), and helps firms to strengthen long-term relationships with their customers (Ng *et al.*, 1999). However, these benefits have to offset the reduction in profitability due to the increase of investment in current assets.

2.5.6 The impact of Working Capital Management on company's survival

In his study involving the impact of WCM and corporate survival, Bhattacharya (1998, p21) noted, "The essential element for the survival of any business is an inflow of adequate funds. According to him, losses on their own are not strategically as significant, for there has never been a cash-rich business, which has gone into liquidation because of losses. That, an adequate flow of funds and their proper management is necessary, not only to save a firm from immediate liquidation but also to finance growth for long-term survival". Some empirical research into the impact of WCM on companies has rather focused on the components of the subject. This field of study is generally recognised as having started with liquidity research beginning with the landmark study in 1996. Beaver (1966), tested the ability of 30 standard accounting ratios, four of them cash flow based, to predict the future success or failure of firms. These ratios were tested on a sample of 79 failed and 79 non-failed firms and Beaver concluded that ratios, especially those that measure cash flow coverage of debt, could predict the failure or success of a business as early as five years in advance.

In effect, Beaver's contention that standard accounting data can predict the financial performance of firms influenced many following studies, having attempted to demonstrate the predictive value of various techniques for estimating actual business financial performance. Deakin (1972) advanced the research of Beaver and Altman by including some fourteen important variables identified earlier by Beaver with the multivariate methodology of Altman. Using a sample of 32 failed and 32 non-failed firms, Deakin found that cash flow coverage of total debt was important for predicting

failure or bankruptcy. In a similar study, Blum (1974), also used failed versus non-failed models in his research and found that cash flow coverage of debt was important to predicting failure for a firm.

Following the preceding landmark studies, many additional research projects were taken in an attempt to validate the use of financial and liquidity ratios for predicting the success or failure of a company. Some of the better-known studies include Altman, Halderman and Narayanan (1977), Norton and Smith (1979) and Mensah (1983)

During the 1980's, the research emphasis in the area of predicting business failure shifted to cash flow analysis following the study of Largay and Stickney (1980), regarding the failure of W. T. Grant. This study found that liquidity ratios and measures of cash flows from operations were the best predictors of the future success of a business. However, the conclusions of the study were questioned by the research findings of Casey and Bartczak (1984 and 1985). Using a sample of 30 bankrupt firms, with another thirty firms held out of the study for validating purposes, and 165 non-bankrupt firms, with an equal number held out for validating, the authors found that, standard accounting measures were better for predicting firm bankruptcy than cash flow (liquid assets) measure. Unfortunately, their study did not take firm size into consideration and this study may explain why the entire components of WCM today could heavily impact on the corporate financial performance or standing, of listed companies.

2.6 The causes of Insolvency and how to avoid it

According to Hsing-Hui (1989), Ren (1992), Jach (1985) and Tong (1990) the most prominent cause of insolvency results from inadequate cash resources and failure to convince creditors of the availability of money. Jach (1985) concurs with this view that even profitable firms could be forced into liquidation, because the demand for payment or settlement of outstanding accounts could not be met at the critical time despite the fact that the assets are tied in long term investments. Furthermore, capital is often required to smoothen out the strains on the cash flow resulting from the occurrence of cost and uncertainty (Ren , 1992). Anderson and Formisano, in an article published in June 1988, reviewed six insolvencies in depth and concluded that common causal factors of the insolvencies included rapid growth and expansion to other states, under-reserving, lack of over-concentration of business, inadequate pricing and proper underwriting, reinsurance failures, and general management weaknesses. Liquidity refers to an organization's ability to meet its short term obligations.

Insolvency therefore arises when an organization is unable to pay its debts as and when they fall due for payment, due to lack of funds. A lay person might refer to such an organization as 'going bust', 'becoming bankrupt', or 'going into liquidation'.

According to Brian Denega, senior vice-president of Ernst & Young, a firm of Chartered Accountants and Management Consultants in Toronto, the main causes of organizations' insolvency include the following:

- Fraud - including misrepresentation of an organization's finances or performance induces other companies and investors to extend credit where that should not have been

done. He suggested that due diligence can reduce fraud, although, it is not possible to eradicate it from organizations.

- High operational cost - Denega said some organizations fail because they do not control their costs well enough. He recommended effective financial controls and reporting mechanisms that seek to enhance cost reduction and control

("Source: How to decide whether to rescue or dissolve", The Globe and Mail journal; Monday, March 19, 2001) A paper presented by David Costello in February, 2003 to the Society of Actuaries in Ireland on the "Recent Developments in Insurance Insolvency", revealed that many organizations including insurance companies face liquidity crises for the following reasons:

- Rapid expansion (over trading)
- Fraud, reckless management and greed among some top management members.
- Inadequate Internal controls that makes pilfering a common phenomenon in organizations.
- False reporting that has resulted in the high profile accountancy scandals, such as the financial disaster at Enron which dominated the headlines in 2002. This has made banks significantly raise their lending standards, thereby making it difficult for organizations to have access to working capital.

(Source: [www.actuaries-soc.ie/5Insurance Insolvency.pdf](http://www.actuaries-soc.ie/5Insurance%20Insolvency.pdf))

Lowenstein, R. (1995), in his article: "Intrinsic value: Lenders' stampede tramples Calder" mentioned, among other things that many organizations face financial crises because the working capital which is supposed to be used for short term liquidity is often

used for long term capital projects such as acquisition of plant and machinery, thereby depriving them of the needed funds to service maturing debts. He therefore urged organizations to avoid the misapplication of funds that could lead to insolvency and eventual liquidation.

(Source: The Wall Street Journal; New York, N.Y; October 26)

It may well be the case that an organization is trading very profitably, but a cash crisis can arise through the mismanagement of working capital. Efficient working capital management is therefore crucial to ensuring the solvency of organizations, says Gamble (2003).



CHAPTER THREE

3.0 Methodology

A good research requires a proper data collection and data analysis methods that best represents the scope and elements under the study. Such careful selection provides a platform for an appreciable analysis of the importance of the research and the recommendation being considered for the socio-economic area under the study.

This chapter describes and justifies the methodological approach that has been employed to gather data for this study. This study adopts both qualitative and quantitative research approaches such as empirical and statistical data. This mix of qualitative and quantities approaches have many challenges. However this approach is deemed more effective as each complement the other; make the study results accurate and authentic.

The chapter covers research design, population sampling, instrument used, data collections procedures and analysis, and the profile of Araba Afram enterprise.

3.1 Research design.

The research was a case study aimed at assessing the working capital management of Araba Afram Enterprise. The survey method is used in the research. This method is chosen after careful study and in depth method review was made of related literature as to how to research in to an area where both qualitative and quantitative analysis was to be made to get a right representation of the results. It was also for this reason that, the researcher acknowledged the sensitivity involved in the analysis of institutions, of which

the research has its base. As such facts were collected from as many sources as represented in the research are selected and to make a more representative conclusion.

3.2 Population.

The study focused in the management and the employees of the company in obuasi where it is located. The researcher also considered the branches/depots of the company at Dunkwa-on-offin in the Western region, Manso Nkwanta, Asante Bekwai and New Edubiase. Also included were the managers of Unilever Mid-Ghana office in Kumasi.

3.3 Sampling Methods

Both probability sampling and non-probability sampling methods were used in the study. The managers of the main bankers were considered in the methods. All the Key members at the branch offices were included in the sampling.

3.4 Sample size

In all a sample size was selected from the staff based on their ability to understanding of the subject matter, and availability. The Managing Director, all the senior Managers and the employees from all the branches constituted the sample size. The sample was also selected in accordance with the established objectives of the study.

3.5 Primary Data.

Primary research data was analysed and used in the study. Primary research data involves the collection of original information specifically in present of particular objectives.

Primary data included information gathered from the company by the researcher himself through questionnaires and interviews. Primary data provided reliable first hand information relevant to this study.

The researcher visited Araba Afram Enterprise to collect information through personal interviews with their executives and the completion of questionnaires submitted to them.

The following key management staff completed the questionnaires for the analysis:

Managing Director, Deputy Director, Operations Manager and Accounts Manager

3.6 Secondary data

Secondary research data includes the collection of data from existing sources and the researcher conducted a detailed research of secondary data on the following lines.

- Analysis of annual audited accounts from 2004 – 2008.
- Analysis of cash flow statement for the same five years period.
- Analysis of the monthly and quarterly management reports of the company.
- Other sources of secondary data used included the intermit as well as literature on existing research in the area under study, reports and articles published by expert in the field of working capital management were al considered.

3.7 Tools of Data collection

The tools used for this research were questionnaires and informal interviews. The questionnaire was designed to provide both qualitative and quantitative information on

the prevailing working capital management practices in the company and to allow appropriate conclusions or recommendation.

3.7.1 Questionnaire

Questionnaires were administered to collect data from respondents. These questionnaires were used in cases where personal interviews were not possible to carry out. This was to reduce inconveniences caused by unfavorable interview times and busy schedules. These questionnaires were printed in English language with spaces for respondent to provide their responses.

The one set of questionnaire designed for all the respondents of the research. It contained 54 questions in all. Some of these questions were open-ended while others were pre-coded.

The open-ended questions were used in order to solicit for the views of respondents on the components of working capital management. This was important because it gives the respondents the freedom to express their views without any restriction on the issues bases for recommendations to be suggested on the findings.

On the other hand, the pre-coded questions were given respondents to answer. With these questions, answers were provided for respondents to select their views. Some of the questions were multiple choice while others were yes/no.

3.7.2 Interviews

The researcher rely on the secondary data for the study, however interviews was used to seek first hand inform and also confirm information from other respondent and questions in the questionnaires. The interview was also used to ascertain information that was not covered by the questionnaire. This was geared towards having more qualitative data that could better the results of the study.

The use of interview in the study is deemed appropriate is order to get as close as possible to the interviewees. This was intended for respondent to express their views and also afford them the chance to ask relevant questions that may arise during the interaction.

The structured questions were used to solicit information from those respondents who could express themselves through the questionnaires. The questions were written on papers and the respondents ask to respond to them.

The semi-structured questions were used for further clarifications from respondents on responses that were not clear. These questions were formed during the process of the interview and aside after the interval has finished with the questions he is answering.

3.8 Data analysis

Qualitative and quantitative methods of analyzing statistical data were employed in the data analysis. The results were subsequently computed into percentages. Percentage values, which were not round figures, were approximated to the nearest whole numbers, for ease and simplicity of interpretation. Computer data analysis software such as SPSS

and Microsoft Excel were the main tools that were used to analyze the data in order to help the results interpretation. The SPSS was used to analyze the pre-coded questions. The open-ended questions were analyzed by listing all the vital responses given by the respondents. They were then considered based on their relevance to the research. This gave the general ideas about the problem in question.

3.9 Profile of Araba Afram Enterprise

3.9.1 Establishment, Ownership and General Background

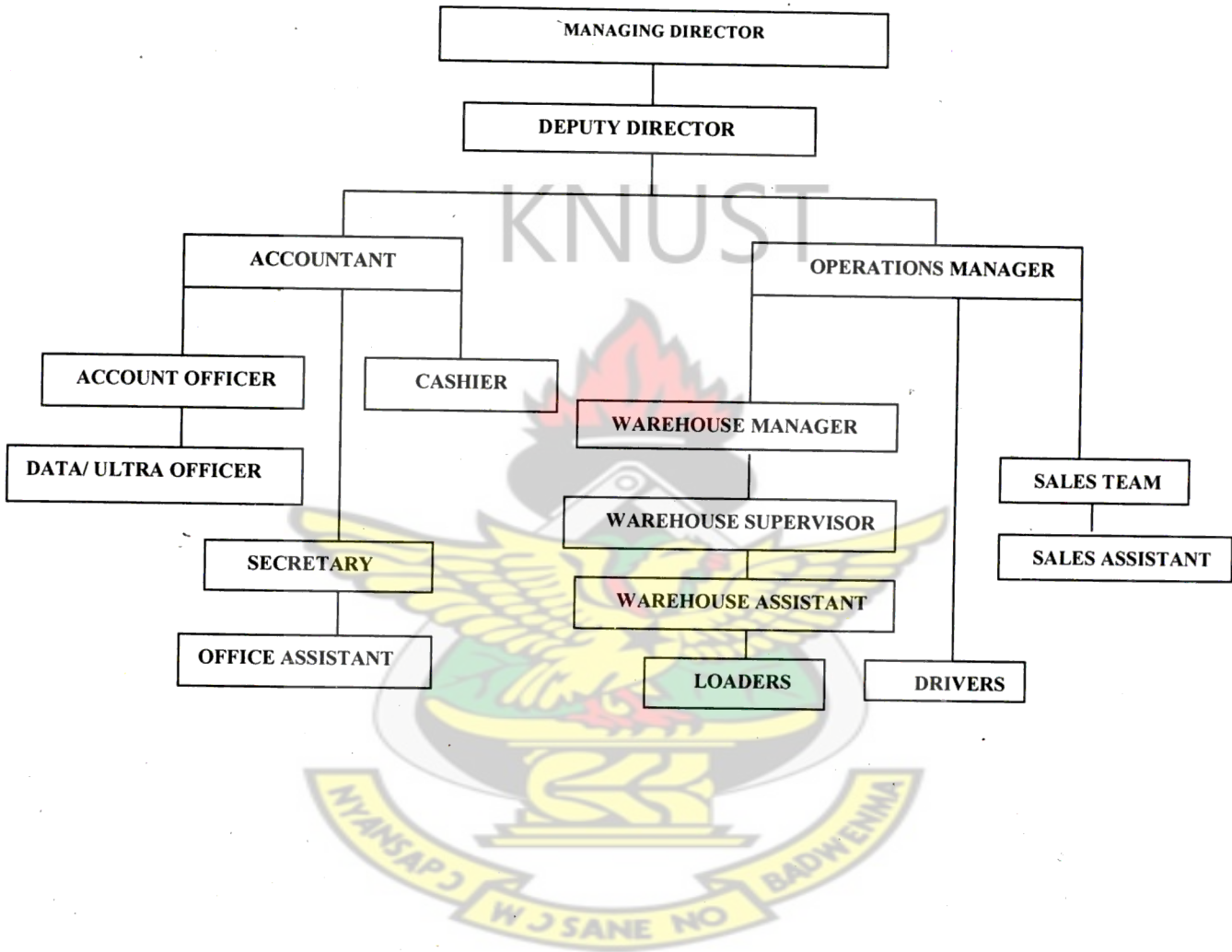
Araba Afram Enterprise which was incorporated in Accra 1st November, 1997 and commenced business on 2nd November of the same year. It is solely owned by the founder, Mrs Elizabeth Atsonglo. Araba Afram Enterprise has been registered under the Companies Code, 1963 (Act 179) as a Private Limited Liability company. Araba Afram Enterprise is key Distributor of Unilever Ghana limited and Nestle Ghana limited is located at the city of Obuasi and lies opposite the Lan-clay Sport stadium.

The company also under take trading in general goods and Saw/corn Mills. The operational areas cover seven districts in the Ashanti region and Dunkwa on-ofin in the central region of Ghana. It has four branches in these areas. The company employs modern machinery and technology to its business activities. Its permanent labour force currently stands at one hundred and seven.

3.9.2 Organizational Structure and Management

Below is the organisational structure of the Araba Afram Enterprise.

ORGANISATION CHART



CHAPTER FOUR

DATA ANALYSIS AND DISCUSSIONS

4.0 Introduction

The chapter deals with the type of data used and their sources, analysis and findings.

There is no standardised approach to the analysis of research data. The approach adopted depends on the research methodology and data collection techniques used (Miles and Huberman, 1994). To be able to capture the richness and fullness associated with qualitative and quantitative data, Perry (1998) suggested that the approach should involve disaggregating the mass of data collected into meaningful and related categories to enhance a systematic rearrangement and vigorous analysis of the data.

4.1 Data Analysis and Findings

4.1.1 Data Analysis

The collected data have been tabulated, analyzed and interpreted with the help of different financial ratios and statistical tools like percentages, average, trend analysis, correlation and significant test, etc.

Financial ratios for assessing the liquidity of firms were applied because they are easy to understand and interpret.

4.1.2 Outline of Findings and Analysis

The information gathered from the above mentioned sources of data were analysed along the following broad headings:

- Financial and Operational Performance,
- Identification of the working capital strategy of the company,
- Study of the trend of the company's net working capital,
- Identification of the causes of the company's persistent liquidity crises,
- Examination of the management pattern of inventory in Araba Afram Enterprise during 2004-2008,
- Examination and evaluation of receivables management along with its impact on working capital management,
- Analysis of cash position and the efficiency with which the same is managed during the period,
- Examination and evaluation of payables management along with its impact on working capital management,
- Examination and Evaluation of the company's sources of financing,
- Identification of the optimum financing structure of the company.

4.1.3 Financial and Operational Performance

(a) Financial Performance

Information on the company's financial and operational performance was gathered basically from the financial statements, and quarterly internal management reports and replies to the questionnaires and interviews granted. The data revealed the following about the company's financial performance during the period under study (2004-2008).

Table 1 Summary of Financial Performance (2004 – 2008) – Ratio Analysis

	2008	2007	2006	2005	2004	AVERAGE
EFFICIENCY RATIOS						
Stock Turnover (days)	34.70	39.19	15.18	14.60	18.58	26.25
Average Collection Period (days)	29.53	19.72	20.50	21.19	22.74	22.74
Average Payment Period (days)	15.75	17.52	10.88	35.71	28.25	21.62
Working Capital Cycle (days)	48.48	62.78	16.20	1.00	13.07	28.31
Working Capital / Sales (%)	10.67	12.20	9.04	1.61	2.04	7.11
Sales to Current Assets (x times)	9.30	8.13	11.06	62.09	47.25	27.57
Sales to Fixed Assets (x times)	38.33	38.27	49.66	43.34	43.08	42.54
Sales to Total Assets (x times)	47.63	46.40	60.72	105.43	90.33	70.11
LIQUIDITY RATIOS						
Current Ratio (x times)	3.60	3.69	6.52	1.18	1.29	3.26
Quick Ratio (x times)	1.43	1.55	4.09	0.78	0.63	1.70
PROFITABILITY RATIOS						
Gross Profit Margin (%)	8.15	9.00	6.08	6.81	6.34	7.28
Net Operating Profit Before Tax Margin (%)	1.00	1.38	0.77	0.61	0.66	0.89
Net Operating Profit After Tax Margin (%)	0.36	0.88	0.59	0.50	0.53	0.58
Return on Capital Employed (%)	6.93	10.00	7.00	15.39	15.04	10.88

(a) Efficiency

(i) Inventory conversion period

On average the company used 26 days to convert its raw stocks into cash. The period is considered satisfactory. Actual days used for 2004 to 2008 are 19, 15, 15, 39 and 35 days respectively.

(ii) Debtor collection period

The company takes 23 days on the average to collect its debt from the customers as compare to the credit period of 15 days on the company's credit policy. This can be said that management Araba Afram Enterprise is slacking in their debt collection and not efficient. The period it takes to collect its debt is longer than the period that the suppliers of the company give which is not good enough.

(iii) Creditor payment period

On average the company paid its total suppliers of goods and services every 22 days which far exceeded the credit period of 3-5 days granted them. 28, 36, 11, 18 and 16 days were used to pay its trade creditors for 2004 to 2008 respectively while 23, 21, 21, 20, and 30 days were used to collect its total debtors for 2004 to 2008 respectively. This had resulted in some suppliers incorporating the cost of the credit into their pricing policy while others take post dated cheques before supplies. This confirms the argument put forward by Berger and Udell (1999) concerning the cost and risk associated with reliance on trade credit as a means of financing working capital.

(iv) Working Capital (Cash Conversion) Cycle

The period under review (2004 to 2008), showed working capital conversion period as 13, 1, 16, 63 and 49 days respectively. The cash conversion cycle or working capital in days of x means that it takes x days to turn an investment into cash and profit. The longer the cash conversion cycle, the higher the company's investment in the working capital. This shows where the managers should focus their attention if they want to decrease the amount of cash tied up the current assets. Cash invested in the current assets can be reduced by shortening the cash conversion cycle (Cheatham 1989). This can be done by decreasing the stock days, by reducing debtor collection period or by increasing the creditor deferral period. The periods were not too long except for the 2007 and 2008 years respectively.

(v) Working Capital/Sales Ratio

This ratio of say, x% showed that, on average, working capital equates x% of sales. The ratios for the period of the study (2004 – 2008) were 2.04, 1.61, 9.04, 12.20 and 10.67 respectively and averagely 7.11. Bankers pay particular attention to industries with low or negative working capital/Sales ratios when it comes to granting credits as cash and profits are earned more quickly.

(vi) Current Assets /Turnover Ratio

This ratio specifically measures how well assets have been used in generating sales or gives a guide to the productive efficiency in the use of the current assets. By comparing the total asset turnover ratio with the fixed asset turnover ratio, it can be established how efficiently the total volume of current assets is being used. The following ratios of 90.33, 105.43, 60.72, 46.40 and 47.63 for 2004 to 2008 respectively with an average of 70.11 were calculated from the data.

(b) Liquidity

The company has showed very good liquidity ratios during the period under review, (2004-2008) and is above the industry average. This showed that the company is financially strong to meet its obligations as they fall due.

(I) The Current Ratio

This ratio which measures a company's ability to meet its current obligations as they fall due were 1.29, 1.18, 6.52, 3.69 and 3.60 for 2004 to 2008 respectively with an average of

3.26. A current ratio of 2:1 is deemed safe for a trading company like Araba Afram Enterprise and less likely to have liquidity problems.

(ii) The Quick Ratio

It is more liquid measurement which compares only cash plus receivables to current liabilities without considering stocks. The following ratios were calculated from the data as 0.63, 0.78, 4.09, 1.55 and 1.43 respectively for 2004 to 2008 with an average of 1.70. The company in this industry with a quick ratio of 1:1 should not have any problems with liquidity.

(c) Profitability

Araba Afram Enterprise operating performance has not been steady but fluctuating in terms of profitability.

-Gross profit percentage has seen marginal increase from 6.34% in 2004 to 6.81% in 2005 but declined to 6.08% in 2006. In 2007 it rose to 9.00% and fell to 8.15% in 2008 with general average of 7.28%

-Net operating Profit before interest and tax percentage showed the same pattern as it declined from 0.66% in 2004 to 0.61% in 2005 and increased steadily to 0.77%, and 1.38% in 2006 and 2007 respectively and subsequently declined to 1% in 2008. The average was however 0.89%

-Similarly, the Net Profit transferred to Income Surplus account percentage showed a similar fluctuating pattern by declining from 0.53% in 2004 to 0.50% in 2005 and rose to

0.59% and 0.88% in 2006 and 2007 respectively and subsequently declined to 0.36% in 2008.

-However, the return on Capital employed started with 15.04% in 2004, rose to 6.40% in 2005 and declined thereafter yearly to 7.0% in 2006. It again rose to 10% in 2007 and steadily declined to 6.93 in 2008 with an average of 10.88%.

4.1.4 Identification of the working capital strategy of the company

There was no formal working capital strategy in place in the sense that:

- No forecast of working capital is done through estimating monthly purchase of stocks, and other direct expenses
- There is no budgetary control in operation. The company does not prepare financial and complete operating budgets. Although sales targets are set weekly, its main purpose is to determine how much stock to purchase from Unilever Ghana Limited the supplier and achieve their monthly targets. Variance analysis is duly done weekly and the causes of the variances investigated for any corrective action to be taken.
- No formal benchmarks are set for working capital ratio analysis.
 - There is no formal yearly performance evaluation system like ratio analysis in place.
 - No formal policy on working capital financing was noted to be in place.

4.1.5 Study of the trend of the company's net working capital

The goal of Working capital management is to ensure that the firm is able to continue its operations and that it has sufficient money flow to satisfy both maturing short-term debt

and upcoming operational expenses. The company working capital position seems to be achieving its obligations. The Company has experienced a continuous growth of its working capital throughout period under the study. The company's net current steadily increased every year and the current liabilities have been reasonably stable through the period leading to the continuous growth as detailed in the table below.

Table 2 **Summary of Working Capital (2004 – 2008)**

	2008	2007	2006	2005	2004
	GH¢	GH¢	GH¢	GH¢	GH¢
Current assets-A	617,463	614,876	347,946	326,640	246,895
Current liabilities-B	170,001	166,208	53,394	277,604	192,592
Net working capital- (A-B)	447,463	448,668	294,552	49,036	54,303

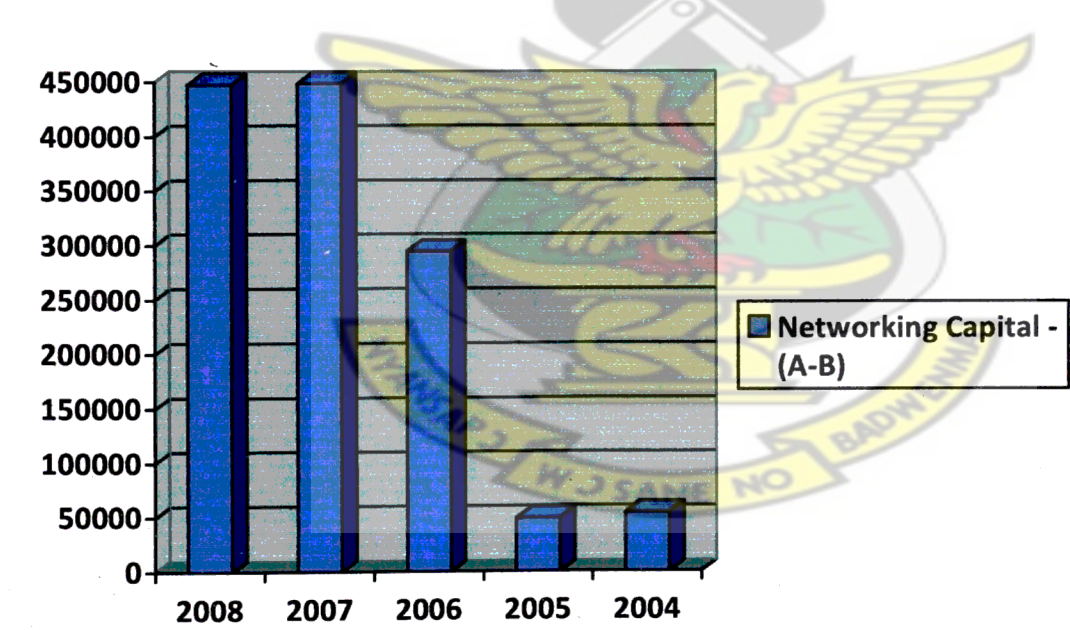


Figure 2: Summary of Working Capital (2004-2008)

In view of the company's persistent growth of current assets exceeding its current liabilities, there has been sufficient working capital for the company's operational

activities which is not dependent of support of its bankers and creditors. This position has therefore been showed clearly in the liquidity ratios calculated.

4.1.6 Company's Liquidity analysis

Cash Management Practices

The study revealed that the company has no problems of liquidity as identified by the ratios but there was a lack of adequate cash management practices. The research showed that management is not effective in controlling the overall working capital requirements of the firm. The key techniques such as cash forecasting, administration and internal control which are considered to be effective means of managing a firm's cash, minimising the cost of funds and maximising interest earnings, Moores, (1999) were not efficiently applied. For instance, because of the sufficiency of working capital of the company funds deposited at the bank were made to lie idle to the benefit of the bank without investment. Excess funds should be put to profitable use to enhance the earnings of the company.

Cash trapped in inventories

Loneux (2003) of London's REL Consultancy Group Limited argued that one of the main causes of organisations' insolvency is the cash trapped in stocks. The study revealed that large quantities of stocks, worth billions of Ghana cedis were held at the warehouses especially at the depots. It appeared by the contract obligations with Unilever Ghana Limited and Nestle Ghana limited especially compelled the company to keep stocks beyond the required levels. The company by their terms of

contract is to keep two week stocks as buffer and that include all the product lines no matter how sticky some may be in the area. This forces the company to invest so much in the stocks thereby resulting in to cash trap in inventory.

4.2 Examination of the management pattern of inventory in Araba Afram

Enterprise (2004-2008)

- Inventories of Araba Afram Enterprise are mainly consumables finished goods acquired from different suppliers for sale. They are grouped into Unilever, Nestle and General goods.
- Inventory management of the company is not effective. There is no system or technique of inventory management like Economic Order Quantity (EOQ), ABC analysis, maximum and minimum level of inventory etc. which are followed in a routine way. Typical of many trading companies, no combination of economic analysis and some statistical formulae are used to set inventory levels. The only inventory control system in place is first-in-first –out (FIFO).

The inventory, on average constituted 60% of the investment in current assets which is about GH¢358,000.00 for 2008 alone resulting from carrying too much inventory, the following costs are being incurred opportunity cost of foregone interest and other carrying costs.

4.3 Examination and evaluation of receivables management along with its impact on working capital management

- The company takes an average of 23 days to collect its outstanding debt from the debtors. Specific days for the respective years under the period are 23, 21, 21, 20 and

30 days for 2004 to 2008 respectively. The company’s credit period allowed under the credit policy is 15 days. The Accounts Receivables are analysed in table 4 below as follows:

TABLE 2 TREND ANALYSES OF ACCOUNTS RECEIVABLE (2004-2008)

	2008 GH ¢	2007 GH¢	2006 GH ¢	2005 GH¢	2004 GH¢	AVERAGE GH¢
Trade Receivables	184,007	178,459	165,863	156,754	5,602.00	138,137
Advance Payment	4,020.71	4,564.72	4,397.52	00.00	00.00	2,596.59
	188,028	183,024	170,261	156,754	5,602.00	140,734

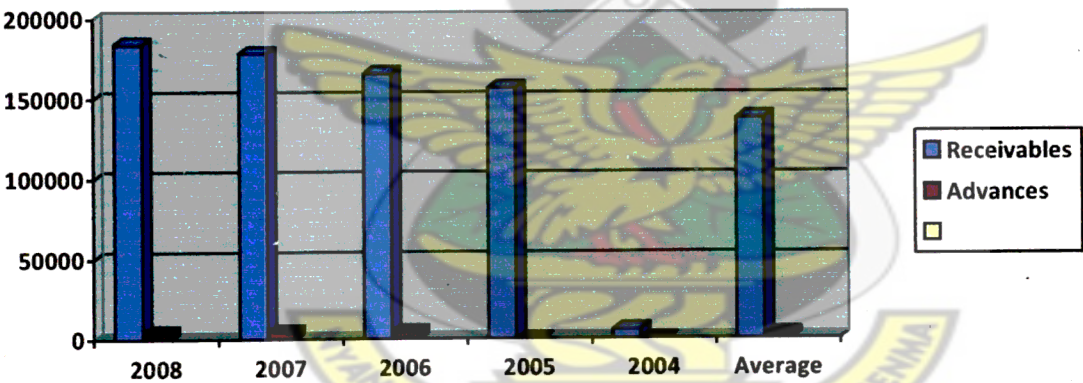


Figure 3: Trend analyses of accounts Receivables (2004-2008)

Araba Afram Enterprise has substantial amount of accounts forming about almost 99% of the total accounts. The other receivables are non-trade debtors dominated by advances granted which is not significant. This calls for a prudent management of the receivables since failure in this instance could cause the company liquidity problems.

4.4 Analysis of cash position and the efficiency with which the same is managed during the period

The company’s cash management practices were very poor. Key techniques such as cash forecasting, cash flow statements administration and internal controls which are considered to be effective means of managing a firm’s liquidity, minimising the cost of funds and maximising interest earnings, (Moores Rowland, 1999) were not efficiently applied. For instance cash receipts were not banked intact and on the next immediate banking day to earn interest as suggested by Luesby, J (2003) but were used for the daily operational expenses.

Table 5 below shows the cash and bank balances as at the end of each year under review (2002-2006).

**TABLE 5 - TREND OF CASH AND BANK POSITIONS AS YEAR END
(2004-2008)**

	2008	2007	2006	2005	2004	AVERAGE
	GH¢	GH¢	GH ¢	GH¢	GH ¢	GH ¢
Cash & Bank Balance	54,854.	73,208	48142	57,321	114,633	69,632

The company has made good profits and there are good liquidity ratios but there is also difficulty in cash management. The company has consistently shown poor cash management practices. . For instance, because of the sufficiency of working capital of the company funds deposited at the bank were made to lie idle to the benefit of the bank

without investment. Excess funds should be put to profitable use to enhance the earnings of the company. The end of year cash and balance for the years under review were too much to be left idle any investment.

4.5 Examination and evaluation of payables management along with its impact on working capital management

On average the company paid its total suppliers of goods and services every 22 days which far exceeded the credit period of 15 days granted them. 28, 36, 11, 18 and 16 days were used to pay its total creditors for 2004 to 2008 respectively.

Table 6 below shows the trend analyses of Araba Afram Enterprise accounts payable as at each year end.

	2008 GH ¢	2007 GH ¢	2006 GH ¢	2005 GH ¢	2004 GH ¢	AVERAGE GH ¢
Trade Payables	160,729	160,150	50,075	277,604	192,592	168,230
Others Payables	9,272	6,058	3,318	00.00	00.00	6,216
Total	170,001	166,208	53,393	277,604	192,592	174,446

Included in the trade payables are the company's tax obligations which insignificant. The company has been working with this substantial trade credits as part of its working capital.

4.6 Examination and evaluation of the company's sources of finance

The sources of the company's finances are both external and internal. The company uses its retained profit and sometimes overdrawn balances. This is a result of its sufficient working capital the company has been able to maintain. It has been established that the

company has been using all the three identifiable working capital funding strategies available to organizations which are: pre-funding, post funding and balanced funding.

Pre-funding

With pre-funding, an organization arranges its long term working capital requirements in advance of need.

Post-funding

This is where organizations use a combination of internally generated funds and short term loans to finance their working capital requirements.

Balanced funding

With this approach, a company seeks to maintain a balance between the uses of short term and long term financing and internally generated cash. Permanent capital is used to fund major projects, which allows the organization flexibility in its short term working capital structure.

External Sources

The main external sources as revealed by the study are from the company's Bankers and Suppliers Trade Credit.

(i) Banking Facilities

It has been revealed from the study that the company has been using the following banking facilities:

Overdraft facility has been used once for a period of one year as a working capital supplement for the general stores section of the company. Because of the company's

good financial standing with its bankers, it is sometimes granted unsolicited overdrafts especially when the balances could not meet current obligations.

(ii) Suppliers Trade Credits

Credit is considered to be a formality-free, security-free and interest-free source of Working Capital financing. During the period under review, the company used an average of 22 days to pay its suppliers as against 3-5 days allowed by the Suppliers. It should however be noted that Trade Credit is not free of cost because the Cash Discount is lost when the trade credit period is taken and can be very expensive. Moreover, this resulted in some suppliers incorporating the cost of the credit into their pricing policy while others could withdraw the credit facility to the company. This confirms the argument put forward by Berger and Udell (1999) concerning the cost and risk associated with over reliance on trade credit as a means of financing working capital.

Internal Sources

This is basically from internally generated funds and effective management of company's inventory and account receivables. As at the end of 31st December, 2004, the balance on the company's Income Surplus account was GH¢ 19,315.80 which was internally generated funds used as part of the company's fixed and current capital. The balance as at 31st December, 2007 was GH¢32,205.14. These amounts and the others are not withdrawn from the company but plough back into the business.

General

The major elements of working capital are inventory, receivables, cash balances and creditors.

The company has good sources of internal finance but unfortunately, this does not use them efficiently to the best advantage of the company.

4.7 Conclusions from the Analysis

It can be seen from the above that, working capital management of Araba Afra Enterprise is not satisfactory. There is therefore the urgent need to refocus the working management of the company to include having formal working capital strategy, properly management liquidity management activities and introducing financial information system to develop financial discipline in working capital management.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the findings of the study, states the conclusions and finally outline the suggestions and recommendations made to enable Araba Afram Enterprise address its working capital management problems.

5.1 Summary of findings

Financial and Operational Performance

The trend of turnover for the period under review did showed steady and satisfactory performance but not reflected in the net profit.

Gross Profit percentage showed a continuous growth throughout the period except in 2006 which showed a slightest decline.

As stated above, the company's profitability did not show steady performance. Though the Operating Profit percentages increased during the period, it can not be said to be outstanding performance. The percentages rose from 0.66% in 2004 to 1.38% in 2007 but dropped to 1%.

There was no formal working capital strategy in place.

- There was no working capital planning, utilization, and productive maintenance of optimum size of working capital
- No regular funds flows statement was prepared which would have helped in the designing of the working capital planning.

The company experienced trend of continuous growth in working capital

The company's current assets kept on increasing yearly for the five years period under review from GH¢246,895.00 in 2004 to GH¢617,462.00 in 2008, representing about 60% growth. The current liabilities was stable for the period as to the current assets lingering between GH¢150,000.00 and GH¢230,000.00. The liquidity position of was therefore very good and thereby resulting to the following deficiencies in working capital management.

- Lack of adequate cash management practices,
- Lack of proper inventory management resulting in to working capital tied up in stocks.
- The company's failure to set benchmarks for periodic working capital ratios analysis, preferably, on monthly bases, in order to make efficient use of the working capital.

Araba Afram Enterprise had a planned approach in managing its accounts payable and stocks but seriously had problem in managing its accounts receivables and cash balances.

-The credit policy and collection of receivables due to credit within the 15 days were not adhered to appropriately.

-Key techniques such as forecasting, cash flow statements administration and internal controls which are considered to be effective means of managing a firm's liquidity, minimizing the cost of funds and maximizing interest earnings were not efficiently applied.

-There was lack of planning and control of cash balances resulting in to non -investment of idle funds.

5.2 Conclusion

Having regard to the above-stated findings, the study concludes that the working capital management of Araba Afram Enterprise is not effective and satisfactory. There is therefore the urgent need to refocus the working capital management of the company. Considerable work is required to address the company's working capital problems.

Achieving the potential performance improvement requires having accurate information, and understanding the key component in each working capital element. Required experience in reducing capital tied in unproductive and unneeded assets will generate cash flow and reduce costs. Accordingly, applications of multi-dimensional models of current assets mix may have positive impact on the continuous growth and development of Araba afram Enterprise.

5.4 Recommendations

In view of the concluding remarks, the following suggestions are given for addressing the liquidity problems of Araba Afram Enterprise and ensuring the proper and efficient management of its working capital.

There should be formal working capital strategy of the company whereby:

- (a) proper norms for working capital management are followed in order to reduce the market risk and for maintaining optimum quantity of inventory,
- (b) there should be working capital planning, monitoring, utilization, and maintenance of optimum size of working capital

Liquidity management activities should be more organized through:

- using all idle funds for productive investments,
- regular measuring of working capital, preferably monthly, in order to identify quickly the trend and any impending liquidity problems that need to be addressed immediately.
- the use of superior inventory management techniques such as Economic Order Quantity (EOQ) and Just-in-Time Purchasing system
- Maximum and minimum level of inventory etc. which are to be followed in a routine way such that certain product lines are not over stocked.
- Overdraft facility should be obtained so that the company could in times of needs rather than the bankers using their discretion in difficult times.

Financial information system should be introduced to develop financial discipline in working capital management.

Financial forecasting, planning and control devices are to be more intensive to enhance the efficacy of cash management.

Finally, the researcher recommends that further detail research should be carried out on the various components of working capital so that the SMEs could to improve the working capital management.

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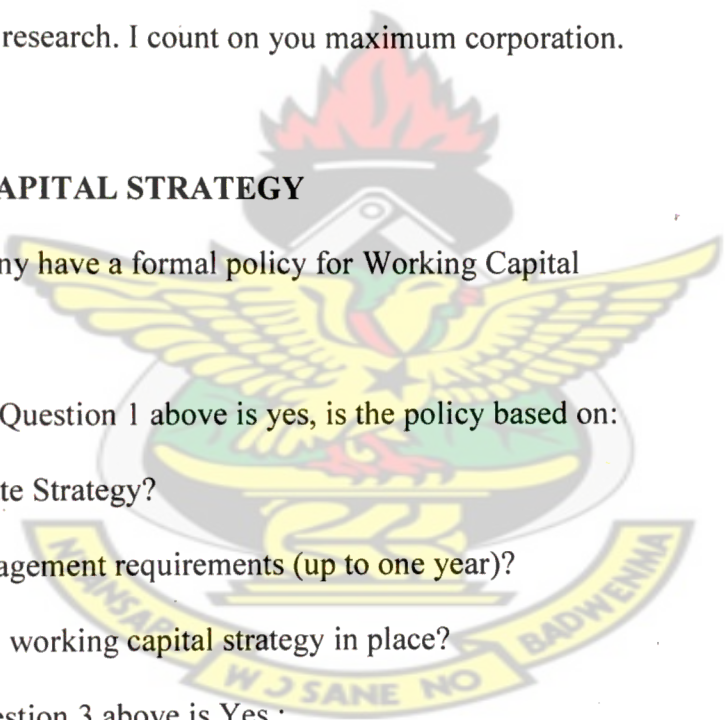


APPENDIX A

SPECIMEN QUESTIONNAIRE

As part of the requirement of an MBA programme I am pursuing at” KNUST School of Business”, Kwame Nkrumah University of Science & Technology, Kumasi, I am conducting a research on the topic “Assessment of working capital Management”. Your views in this regards are highly needed. Please answer the items below as frankly as possible .The answers you will give will be treated in strict confidentiality and will be used solely for the research. I count on you maximum corporation.

A. WORKING CAPITAL STRATEGY

- 
1. Does the company have a formal policy for Working Capital Management? Yes No
2. If the answer to Question 1 above is yes, is the policy based on:
- a) Overall Corporate Strategy? Yes No
- b) Short-term management requirements (up to one year)? Yes No
3. Is there a formal working capital strategy in place? Yes No
4. If answer to Question 3 above is Yes,:
- a) Is forecasting of working capital done through estimating monthly Production, needs for raw materials and direct other expenses. Yes No
- b) Is there budgetary control in operation? Yes No
- c) Does the company prepare financial and complete operating budgets? Yes No

d) Is there formal yearly performance evaluation system like ratio analysis in place?

Yes No

B NET WORKING CAPITAL POSITION

5. Is the company able to meet its obligations as and when they fall due?

Yes No

6. a) How much working capital is adequate for the company for a one year period?.....

.....

7. Is there a consistent technique for measuring Working Capital?

Yes No

8. If your answer to Question 7 is yes,

a) How is it measured? Please explain briefly.....

.....

b) How often is the measurement done?

i) monthly ii) quarterly iii) half-yearly iv) annually

9. What is the value of the company's net working capital at the end of each of the five years, 2004-2008?

Year	2008	2007	2006	2005	2004
Current assets –A Article I. Stocks: All Types Accounts Receivable: Trade Receivables Other Receivables Payment in Advance Bank & Cash: Foreign Currency Accounts Current Accounts Cash in Hand TOTAL					
Current liabilities-B Bank Overdraft Accounts Payable: Trade Payables Other Payables Directors' Current Account Accrued Charges Loans TOTAL					
Net working A-B					

10. If negative net working capital value or reduction is recorded, are there measures taken to remedy the situation? Yes No

11. If your answer to Question 10 is yes, please indicate the measures taken

D CASH MANAGEMENT PRACTICES

12. Is there pressure on existing cash resources? Yes No

13. Does the company have exceptional cash generating activities?
 (E.g. offering high discounts for early cash payments)

14. Do your bank overdrafts exceed authorized limits? Yes No

15. Does the company seek greater overdrafts or lines of credit? Yes No

- 16. Does the company make part payments to suppliers or other creditors? Yes No
- 17. Does the company pay bills in cash to secure additional supplies? Yes No
- 18. Does the company make frequent short-term emergency requests to its bankers (to help pay wages, pending receipts of cheques? Yes No
- 19.If your answer to one or more of the questions in (12) to (18) above, is yes, what accounts for this?

.....

- 20. What key Cash Management Practices techniques are in place?
 - a) Cash forecasting
 - b) Cash flow statement
 - c) Administrative and Internal controls

.....

E. MANAGING ACCOUNTS RECEIVABLES (DEBTORS)

- 21. Does your company sell on credit? Yes No
- 22. How many days credit does the company grant to debtors?
(Please state).....
- 23. Who is responsible for deciding credit limits and terms of payments?.....
- 24. Are debtors monitored regularly to ensure prompt payment? Yes No
- 25. Do your customers pay advances before supplies are made to them? Yes No
- 26. If answer to (25) above is yes, what is the average size of such advances?

.....

27. If answer to (25) above is Yes, for how long does the company keep these advances before supplies?

.....

28. Does the company establish credit practices as a matter of company policy? Yes No

29. Does the company make sure that these practices are clearly understood by staff , suppliers and customers? Yes No

30. Does the company check customers thoroughly before offering them credit? Yes No

F. INVENTORY MANAGEMENT (STOCKS)

31. What system or technique of inventory management is in place?
.....
.....

32. Does the company have good markets for its finished products to the extent that it does not experience stock piling of the finished goods? Yes No

33. Can stocks of finished goods be reduced to release the amount of working capital tied up? Yes No

34. Do you analyse inventory for slow-moving and/or obsolete items? Yes No

G. MANAGING ACCOUNTS PAYABLES (CREDITORS)

35. Who authorizes purchasing in your company – is it tightly managed or spread among a number of (junior) people?

36. Are purchase quantities geared to demand forecasts? Yes No

37. Do you use order quantities which take account of stock-holding and purchasing costs? Yes No
38. Do you know the cost to the company of carrying stock? Yes No
39. How many of your suppliers have a returns policy?
40. Are you in a position to pass on cost increases quickly through price increases to your customers? Yes No
41. Do suppliers grant trade credit? Yes No
42. If Yes, is the credit with or without interest?
43. How many days credit is offered?
44. Do you consider the cost of losing the trade discount by taking the full credit period? Yes No

H. FINANCING

45. What are the main sources of the company's finances?
- a) External
- b) Internal
46. Do you need to borrow to finance working capital? Yes No
47. If your answer to Question 46 is yes, do you arrange loans from banks? Yes No
48. Which of the following factors does the company consider when determining a working capital loan portfolio from a bank?

Never Occasionally Frequently Every time

a) Selection and use of banks with best

terms of loans 1 2 3 4

b) Obtaining and comparing loan rates to

find the best deal 1 2 3 4

c) Selection and use of specific

loan instruments 1 2 3 4

d) Borrowing in foreign currencies

1 2 3 4

49. Which of the following loan instruments

does your company use to finance the working capital requirements?

a) Bank overdrafts b) Medium-term loans (up to three years)

c) Long-term loans (beyond three years)

d) Others (Specify)

.....

50. Please, explain briefly the reasons for your choice in Question 76

.....

51. Do your bankers require the following before granting a working capital loan?

a) Business plan Yes No

b) Cash flow Statements for previous years and forecasts for required

years? Yes No

c) Financial Statements for previous years and forecasts for required?

future years? Yes No

d) Collateral security

Yes No

e) Management profile Yes No

52. Does the company conduct its business in line with the
Business Plan and the Cash Flow projections? Yes No

53. Which of the following working capital funding policies
does the company pursue?

- a) Pre-funding b) Post-funding c) Balanced funding

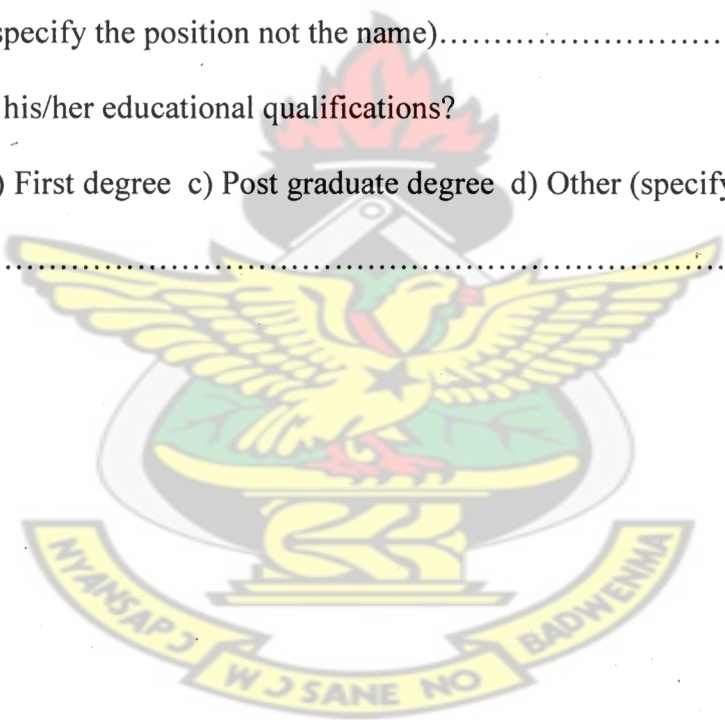
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54. i) Who is responsible for managing the finances of the company?
(Please specify the position not the name).....

ii) What are his/her educational qualifications?

- Diploma b) First degree c) Post graduate degree d) Other (specify)

.....



APPENDIX B

ARABA AFRAM ENTERPRISE

PROFIT AND LOSS ACCOUNTS FOR THE PERIOD OF FIVE YEARS (2004-2008)

	2008	2007	2006	2005	2004
Turnover	4,172,175.15	3,646,631.92	3,258,019.37	3,044,777.29	2,656,690.83
Less:					
Cost of Sales	3,939,932.62	3,337,956.57	3,116,636.01	2,837,487.32	2,488,351.90
Gross Profit	232,242.53	308,675.35	141,383.36	207,289.97	168,338.93
Other Income	64,334.73	45,861.80	57,672.22	15,915.38	14,983.82
	296,577.26	354,537.15	199,055.58	223,205.35	183,322.75
Less:					
Admin & Gen Expenses	250,397.14	297,941.82	170,590.67	204,848.85	165,879.57
Financial Charges	20,081.89	18,339.37	5,830.80	3,042.35	3,267.75
Operating profit	26,098.23	38,255.96	22,634.11	15,314.15	14,175.43

APPENDIX B

ARABA AFRAM ENTERPRISE

BALANCE SHEET FOR THE PERIOD FIVE YEARS (2004-2008)

	2008	2007	2006	2005	2004
Fixed Assets	108,860.46	95,289.23	65,611.42	70,260.20	61,681.12
<u>CURRENT ASSETS</u>					
Stocks	374,581.04	358,344.28	129,543.26	112,564.71	126,659.95
Accounts Receivables	184,007.04	178,758.78	165,862.68	156,753.99	5,602.00
Income tax Prepaid	4,020.71	4,564.72	4,397.52	-	-
Cash & Bank	54,853.84	73,208.09	48,142.29	57,321.20	114,633.02
	<u>617,462.63</u>	<u>614,875.87</u>	<u>347,945.75</u>	<u>326,639.90</u>	<u>246,894.97</u>
<u>CURRENT LIABILITIES</u>					
Accounts Payables	160,729.11	160,150.10	50,075.28	277,603.69	192,592.33
Director Loan A/c	9,271.52	6,058.14	-	-	-
Provision for Tax	-	-	3,318.31	-	-
	170,000.63	166,208.24	53,393.59	277,603.69	192,592.33
<u>Net Current Asset</u>	447,462.00	448,667.63	294,552.16	49,036.21	54,302.64
<u>NET ASSETS</u>	556,322.46	543,956.86	360,163.58	119,296.41	115,983.76

FINANCED BY:

Capital	543,956.86	360,148.17	355,636.57	115,982.27	109,606.83
Additions	-	161,532.46	-	-	
Add Net Profit	<u>15,003.59</u>	<u>32,205.14</u>	<u>19,315.81</u>	<u>15,314.16</u>	<u>14,175.45</u>
Less Drawings	(2,637.25)	(9,928.91)	(14,788.80)	(12,000.00)	(7,800.00)
	<u>556,323.20</u>	<u>543,956.86</u>	<u>360,163.58</u>	<u>119,296.43</u>	<u>115,982.28</u>

