THE RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT POLICIES AND PROFITABILITIES FOR COMPANIES QUOTED AT THE NSE

BY: BENSON O. APUOYO

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SUPERVISOR

MR. MOSES N. ANYANGU

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DECLARATION

I declare that, this project is my own original work and has not been presented in any other University or College for the award of Degree or Diploma or Certificate.

Signature…… Date……

Benson O. Apuoyo

This research project has been submitted for the course examination with my approval as the University Supervisor

Signature……..... Date……

Mr. Moses N. Anyangu

Chairman of the Department

Signature…… Date……

Dr. Josiah Aduda

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ABSTRACT

Working capital management (WMC) is of particular importance to listed companies at Nairobi Stock Exchange (NSE) . With limited access to long – term capital markets, those firms tend to rely more heavily on equity financing, trade credit and short term bank loans to finance their needed investment in cash, accounts receivable and inventory. However the impact of the working management policies on a firm's profitability has varying views among financial managers. The objective of this research study was to establish where there is any relationship between working capital management policies and profitability of companies quoted at NSE.

The population of interest for the study was all public companies listed at the NSE. These companies were fifty five as at 31st December, 2009.Proportionate random stratified sample was used. The classification of the companies was based on sector categorization as done by the NSE. Secondary data for the research was extracted from the audited financial statements of the companies sampled. For each firm sampled, annual data on the assets, liabilities, total shareholder equity and the profit after tax were collected for a period of five years from 2005 up to 2009.

The data collected was analyzed to determine the individual company's annual working capital policy as measured by the long – term financing of current assets and also the profitability of the company. The annual working capital management policy and profitability were averaged using the simple arithmetic mean to get the five year average for each of the company in the sample. The companies were then grouped into three categories of aggressive, moderate and conservative depending on their working capital management policy .The statistical significance of the differences between the three working management policies was done using the student't' statistic. Simple regression analysis was done to establish the relationship between the working capital management policy and the return on total assets which was used as a measure of profitability.

The results of the analysis showed that the firm's profitability as measured by ROTA increases with firm's size, gross working capital efficiency and with a lesser aggressiveness of the asset management. Thus, contrary to the traditional theory of asset management, where a conservative policy is expected to sacrifice profitability at the expense of liquidity, the research study found out that there is a positive relationship between a conservative working capital management policy and the profitability of the companies quoted at the NSE. The findings of the research also showed that there are significant differences between the working capital management policies across the five sectors.

LIST OF ABBREVIATIONS

BAT	BRITISH AMERICAN TOBACO
CMA	CAPITAL MARKETS AUTHORITY
CSO	CENTRAL STATISTICAL OFFICE
DV	DEPENDENT VARIABLE
EOQ	ECONOMIC ORDER QUANTITY
IV	INDEPENDENT VARIABLE
ISE	INSTANBUL STOCK EXCHANGE
NSE	NAIROBI STOCK EXCHANGE
NASI	NAIROBI STOCK EXCHANGE ALL SHARE INDEX
ROE	RETURN ON EQUITY
ROCE	RETURN ON CAPITAL EMPLOYED
SPSS	SOFTWARE PACKAGE FOR SOCIAL SCIENCES
UK	UNITED KINGDOM
USA	UNITED STATES OF AMERICA
WCM	WORKING CAPITAL MANAGEMENT

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CHAPTER ONE

INTRODUCTION

1.1 BACKROUND TO THE STUDY

A well designed and implemented working capital management policy is expected to contribute positively to the creation of a firm's value through profit generation. The trend in working capital needs and profitability of firm could be examined to identify the causes of significant relationships and or differences between working capital policies and a firm's profitability. For a long period, firms listed at the Nairobi Stock Exchange (NSE) have ignored the impact of working capital policies. Firms experiencing poor returns on their assets have responded either operationally by making changes in top management (Mwangi, 2003) or in an organizational strategy and structure (Weinrraub & Visscher, 1998) or financially through debt restructuring and bankruptcy filings (Peel et al, 1990). According to Chimnoy and Rendall (1991) typical responses to poor performance by quoted companies include asset restructuring, employees lay-offs and management replacement.

Over the years, capital markets have remained and will continue to be an important segment of the Kenya's economy. In most developing countries, listed firms play the most fundamental role in facilitating transactions in capital markets. Of the main role of listed companies is providing economic returns to the investors. For a firm to be in a position to do so, it must be profitable and also exhibit a healthy liquidity position (Weston & Copeland, 1988).

Lamberson (1992) notes that a firm would make just enough investment in current assets if it were possible to arbitrarily choose the right working capital management policy that would guarantee maximum profitability. He further observes that a large investment in current assets would mean a low rate of return on investment for the firm as excess investment in current assets will not earn enough return to generate profit. A smaller investment in current assets, on the other hand, he observes, would mean interrupted production and sales because of frequent stock-outs and inability to pay creditors in time due to restrictive policy. Nyaga (2007) observes that

one of the two most important requirements of liquidity is profitability. Liquidity is the availability of funds to honour a firm's cash-flow commitment including off-balance sheet items as they fall due (Ross et al, 1988). Another requirement is to make payments to creditors.

Therefore, when managing a quoted firm at the Nairobi Stock Exchange (NSE), financial manager should always ensure the firm is able to meet their financial obligations as they fall due. By enabling the quoted firms to meet their financial obligations promptly, Emery (1998) argues that a good measure of profitability instills a sense of confidence to the investors and thus wins their loyalty. On the contrary, a poor liquidity status could lead to inability of firms meeting their financial obligations. According to Nyaga (2007) working capital management policies are crucial instruments of success factors. He notes that it is only when a firm is profitable that it will see the light of market growth, market share and progress through product and industry life cycles. Ochieng (2007) observes that managing portfolios, firms have two main aims that may conflict; maintenance of stock of liquid asset incase their cash is under pressure and the wish to earn high rate of return on their assets in order to maximize profits. High-risk borrowers and long – term investments tend to earn firms high returns while low- risk and short- term investors may earn firms low returns. However, such high return assets could turn to be illiquid.

Subsequently, in pursuits of profit maximization firms would wish to hold a small portion of assets as possible in liquid form. At the same time, financial prudence would require that listed companies at NSE hold adequate cash and other liquid assets (working capital) to meet their obligations as they fall due. The firms are therefore faced with a conflict of choice between short- term and long- term loans of financing the working capital. Nyakundi (2003) says high rate of return with reference to the choice of working capital financing is associated with low liquidity. Hence, he notes that low profitability would be expected to be associated with high liquidity. In the event of low or no profitability NSE listed firms' investors would lose confidence and may engage in a run the firm. This eventually results to failures since inappropriate working capital management policy would further result to; inability to take advantage of favourable discounted loans and other opportunities, lower profitability, delay in collection of interest and principal payments for creditor and damage to customer relationships.

In Kenya, regulation of capital markets is the responsibility of the Capital Market Authority (CMA). The CMA's Supervisory Department carries out the function of supervising the trading of stocks and the operations of NSE to ensure the liquidity, solvency and functioning

of a stable capital markets. The Capital Market Authority Act (2002) empowers the CMA to carry out the regulatory function by ensuring the listing of companies is subjected to: appropriate procedure and rules governing licensing of players at the NSE, minimum capital requirement, preparation of prospectus, information requirements that need to be disclosed, how many shares should be issued and rules on publication of statements of accounts and how regularly it should be submitted to the Authority. As the CMA Supervisory Department continues to adopt and implement effective and sound regulatory methods in order to minimize risk inherent in the stock exchange system most listed companies, with few exceptions, still continue to experience diminished returns. In ensuring a healthy liquidity status of listed companies, the CMA requires listed firms to be profitable, the indicators being good Return on Total Assets (ROTA) and Return on Equity (ROE).

According to Padachi (2006) a company's ability to remain profitable is a function of their working capital management policies: aggressive policy, moderate policy, conservative policy and also corporate governance structure. Ross et al (2004) argue that the deregulation and globalization of financial markets have made liquidity risk management, credit risk and market risk more diverse and complex because quoted firms have to succumb to the existing market forces that are typical of market kind of an economy.

Mureithi (2003) finds evidence that provides strong support for the hypothesis that growth options, size and cash flows of firms exert a positive impact on a firm's liquidity holding decisions and that firms with other liquid assets tend to hold less cash. However, there is less support for the view that firms use high debt capacity as a substitute for liquidity. Further, he finds that maturity structure of debt does not play a significant role in firm's liquidity decisions where as source of debt matters. Finally, he suggests that unobserved firms' heterogeneity and endogeneity problems are crucial in analyzing firms' profitability and liquidity decisions.

As it is not possible to estimate working capital needs accurately, the firm must decide about levels of current assets to be carried. The current assets holding of the firm will depend upon its working capital policy. It may follow a conservative or an aggressive policy. These policies have different risk-return implications (Belkaoni, 1992). A conservative policy would lead to lower return and risk while an aggressive policy produces higher returns and risk.

Started in 1954 as an overseas stock exchange while Kenya was still a British colony, Nairobi Stock Exchange (NSE) is the principal stock exchange of Kenya. The Nairobi Stock Exchange (NSE) has fifty five listed public companies as at 31st December, 2009. The NSE is a 20 – share index. This means the NSE 20 share index which has been in use since 1964 and measures the performance of twenty blue – chip companies with strong fundamentals and which have consistently returned positive financial results. This index primarily focuses on price changes for the twenty companies.

In 2008, the Nairobi Stock Exchange All Share Index (NASI) was introduced as alternative performance. The index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalization rather than the price movement of select counters. Firms listed at the Nairobi Stock Exchange (NSE) are divided into five main investment segments. These include Agricultural, Commercial and Services, Finance and Investment, Industrial and Allied and the Alternative Market Segment.

The two important aims of working capital management are: profitability and solvency. Solvency used in the technical term, refers to the firm's continuous ability to meet maturing obligations (Krishman, 1969). Lenders and creditors expect prompt settlement of their claims as and when due. To ensure solvency, the firm should be very liquid, which means larger current assets holding. If the firm maintains a relatively large investment, in current assets, it will have no difficulties in paying claims of creditors when they become due and will be able to fill all sales orders and ensure smooth production. But firms are not formed solely to be paying creditors claim. There is a cost associated with maintaining a sound liquidity position. A considerable amount of the firm's funds will be tied up in current assets and to the extent this investment is idle the firm's profitability will suffer.

To have higher profitability, the firm may sacrifice solvency and maintain a relatively low level of current assets. When the firm does so, its profitability will improve as less funds are tied up in idle assets but its solvency would be threatened and would be exposed to greater risk of cash shortage and stock–outs. Although Nyakundi (2003) notes that there is no any significant difference between working capital management policies across the five sectors listed at the Nairobi Stock Exchange, he notes that there is yet to be documented working capital management policy among the public companies in Kenya. Yet under an aggressive policy, the

firm finances a part of its permanent current assets with short term financing. In fact some extremely aggressive firms even finance a part of their fixed assets with short-term financing (Nyakundi, 1992).

The relatively more use of short-term financing makes the firm risky (Kessen, 2006). It therefore means that there could be some working capital management policies that are popular with the public firms in Kenya. More over short-term finance is frequently repayable on demand by the lender and renewal or "roll over" of short term finance. Gitman (1997) finds that on occasions, short term financing as practiced under the aggressive policy may only be possible at the expense of accepting higher interest rates and tougher borrowing conditions. All these factors increase the variability associated with short-term financing and increase the firms' risk of experiencing liquidity difficulties.

All firms require resources in order to produce goods and services to be sold to customers. These resources are the assets of the firm. These assets are further divided into two classes; the current assets and the fixed assets. The current assets are cash and other assets that are expected to convert to cash within one year (Pandey, 1993). Copeland et al (2005) note that current assets are presented on the balance sheet in order of their liquidity - the ease with which they can be converted to cash and the time it takes to convert them. Four of the most important terms found in the current asset section of a balance sheet are cash and cash equivalents, marketable securities, accounts receivables and inventories.

On the other hand fixed assets are the resources of the firm that are not expected to be converted to cash within one year. Examples of fixed assets are plant and machinery, land and buildings, motor vehicles, equipment and furniture and fittings. Therefore, fixed assets do not form part of working capital of a firm.

Current assets, often short–term financial management is called working capital management (Ross et al, 2004). The need for working capital to run the day to day business activities is paramount. There is hardly a business firm which does not require any amount of working capital. Indeed, firms differ in their requirements of the working capital. According to Pandey (1993) working capital management is the process of planning and controlling the level and mix of the current assets of the company as well as financing these assets. Specifically,

working capital management requires financial managers to decide what quantities of cash, other liquid assets, accounts receivables and inventories the company will hold at any point in time that enhance the profitability of the firm. In addition, financial managers must decide how these current assets are to be financed. The study shall specifically analyze the effects of the following variables on profitability: aggressive policy, moderate policy and conservative policy.

1.2 STATEMENT OF THE PROBLEM

A firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations. Liquidity is a precondition to ensure that firms are able to meet its short-term obligations and its continued flow can be guaranteed from a profitable venture. The importance of cash as an indicator of continuing financial health should not be surprising in view of its crucial role within the business. This requires that business must be run both efficiently and profitably. In the process, an asset-liability mismatch may occur which may increase firm's profitability in the short run but at a risk of its insolvency. On the other hand, too much focus on liquidity will be at the expense of profitability and it is common to find finance textbooks (for example Gitman, 1994 and Bhattacharya, 2001) begin their working capital sections with a discussion of the risk and return tradeoffs inherent in alternative working capital policies. Thus, the manager of a business entity is in a dilemma of achieving desired tradeoff between liquidity and profitability in order to maximize the value of a firm.

Profitability always comes first in the minds of investors when they do consider investment decision. Without profitability measure there would be no firms listed at the Nairobi Stock Exchange (NSE). There have been documented determinants of a firm's profitability and these include cost of capital, sources of funds, management style, availability of resources and the macro environment (Opondo, 2004). Liquidity is an important determinant of financial distress and financial distress is an indication of lack of profit accruing to a firm notes Weinraub (1985). However, Dunn and Cheatham (1993) observe that being too liquid is costly yet having too little liquidity is also risky, calling for a need for listed firms to have a trade-off between liquidity and profitability. The objectivity of a good working capital management policy is to ensure an optimum level of current assets so that the wealth of the shareholders is maximized.

Thus, there is need to study the role of working capital management policies on profitability of companies listed at the Nairobi Stock Exchange. Conventionally, it is evident that if a company desires to take a greater risk of bigger profits and losses, it reduces the size of its working capital. However, this policy is likely to result in a reduction of the sales volume, and therefore of profitability. Hence, a company should strike a balance between liquidity and profitability.

Quoted companies at the Nairobi Stock Exchange (NSE) are viewed as an essential element of a healthy and vibrant economy. They are seen as vital to the promotion of an enterprise culture and to the creation of jobs within the economy (Opondo, 2004). Listed companies are believed to provide an impetus to the economic progress of developing countries and its importance is gaining widespread recognition. Equally in Kenya they occupy a central place in the economy, accounting for 90% of business stock and employing approximately 25% of private sector employees (Wignaraja and O'Neil, 1999; CSO, 2003; NPF, 2004). Storey (1994) notes that quoted firms, however they are defined, constitute the bulk of enterprises in all economies in the world. However, given their reliance on short-term funds, it has long been recognized that the efficient management of working capital is crucial for the survival and growth of qouted firms (Grablowsky, 1984; Pike and Pass, 1987). A large number of business failures have been attributed to inability of financial managers to plan and control properly the current assets and current liabilities of their respective firms (Smith, 1973).

Working capital management (WCM) is of particular importance to the listed firms. With limited access to the long-term capital markets, these firms tend to rely more heavily on owners financing, trade credit and short-term bank loans to finance their needed investment in cash, accounts receivable and inventory (Chittenden et al, 1998; Saccurato, 1994). However, the failure rate among small businesses is very high compared to that of large businesses. Studies in the UK and the US have shown that weak financial management - particularly poor working capital management and inadequate long-term financing - is a primary cause of failure of several businesses (Berryman, 1983; Dunn and Cheatham, 1993). The success factors or impediments that contribute to success or failure are categorized as internal and external factors. The factors categorized as external include financing (such as the availability of attractive financing), economic conditions, competition, government regulations, technology and environmental

factors. While the internal factors are managerial skills, workforce, accounting systems and financial management practices.

Some research studies have been undertaken on the working capital management practices of both large and small firms in India, UK, US and Belgium using either a survey based approach (Burns and Walker, 1991; Peel and Wilson, 1996) to identify the push factors for firms to adopt good working capital practices or econometric analysis to investigate the association between WCM and profitability (Shin and Soenen, 1998; Anand, 2001; Deloof, 2003).

Specific research studies exclusively on the impact of working capital management on corporate profitability of the quoted companies are scanty, especially for the case of Kenya. The relationship, if any, between working capital management policies and profitability of firms quoted in developing countries and in particular, Kenya, is altogether an ignored area of research. Keeping this in view and the wider recognition of the potential contribution of the Capital Markets sector to the economy of developing countries, this study is a modest attempt to measure and analyze the trend of working capital investment and needs of listed firms at NSE. This study, therefore, proposes to close the knowledge gap on the impact of working capital management policies on profitability of listed companies and its results are expected to contribute to the existing literature on working capital management policies and profitability.

1.3 OBJECTIVES OF THE STUDY

The study objectives are to examine the relationships between working capital management policies and profitability for companies quoted at the Nairobi Stock Exchange.

1.4 SIGNIFICANCE OF THE STUDY

Efficient financial management requires the existence of some objectives or goals. This is because judgment as to whether or not a financial decision is efficient must be made in light of an appropriate working capital management policy while at the same time sustaining good returns to the shareholders. This study would greatly benefit financial managers and chief executive officers of small and large firms. By understanding the relationship between working capital management policies and profitability, finance managers would be able to plan their

working capital strategies based on working capital management policies that enhance profitability

The findings of the research would also benefit Government policy makers. The policy makers would be able to give guidelines that are backed by research findings to institutions charged with the responsibility of managing capital markets specifically the Capital Market Authority and Nairobi Stock Exchange in designing appropriate regulatory mechanisms that enhance profitability of listed firms.

The study will also be an important resource document for academicians and future researchers who may wish to investigate the performance of firms in relation to working capital management and profitability.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter is organized into four sections. The chapter starts with an overview of the working capital, nature and importance of working capital and the components of working capital. It then documents some of the theories of working capital. Types of working capital management policies are reviewed to provide an understanding of the expected predictor variables. Finally, the chapter concludes by reviewing empirical research that has been carried out recently in foreign countries as well as within the country.

2.2 AN OVERVIEW OF WORKING CAPITAL

Efficient working capital management is an integral component of the overall co-operate strategy to create shareholder wealth. The way in which working capital is managed can have a significant impact on both liquidity and profitability of the company. Research by Taggart (1977) first signaled the importance of trade – offs between dual goals of working capital management; that is liquidity and profitability. In other words, decisions that tend to maximize profitability tend not to maximize the chances of adequate liquidity. Conversely focusing entirely on liquidity will tend to reduce the potential profitability of the company (Hendricksen, 1992).

Working capital management is concerned with making sure firm has exactly the right amount of cash and lines of credit available to the business at all times (Deloof, 2003). Cash is the lifeline of a company. If this lifeline deteriorates, so does the company's ability to fund operations, reinvest and meet capital requirement and payments. Understanding a company's cash flow health is essential to making investment decision. An individual company's investment in working capital will be related to the type of industry in which it operates and the essential working capital policy each individual company adopts (Nyakundi, 2003). Ross et al (2004) note that investment decisions concern how much of the firm's limited resources should be invested

in working capital. They further observe that financing decisions relate to how the investment in working capital is to be funded.

2.2.1 NATURE AND IMPORTANCE OF WORKING CAPITAL

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

While the performance levels of small businesses have traditionally been attributed to general managerial factors such as manufacturing, marketing and operations, working capital management may have a consequent impact on small business survival and growth (Kargar and Blumenthal, 1994). The management of working capital is important to the financial health of businesses of all sizes. The amounts invested in working capital are often high in proportion to the total assets employed and so it is vital that these amounts are used in an efficient and effective way. However, there is evidence that small businesses are not very good at managing their working capital. Given that many small businesses suffer from under capitalization, the importance of exerting tight control over working capital investment is difficult to overstate

2.2.2 WORKING CAPITAL MANAGEMENT COMPONENTS

The basic focus in managing specific current assets should be to optimize the firm’s investment in these assets. The main components of a firm’s working capital include the following:

Cash and Marketable Securities

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

Cash is the most important current asset for the operation of the business. Cash is the basic input needed to keep the business running on a continuous basis; it is also the ultimate output expected to be realized by selling the service or product manufactured by the firm. Cash consists of currency, demand deposit and time deposits (Copeland and Weston, 1988). The principal marketable security is commercial paper (short-term unsecured notes sold by other firms). The other security is the government treasury bills and bonds.

Good management of working capital will generate cash, help improve profits and reduce risks. The main sources of cash are accounts payable and equity. According to Donaldson (1961) accounts payable is money the firm owes to its suppliers. It is short – term source of finance. Pandey (1994) refers accounts payable as a trade credit that a customer gets from supplier of goods or services in the normal course of business. In practice, the buying firms have not to pay cash immediately the purchase is made. Equity represents owner's claim against the business entity. But the nature of the owners' claim is not as the claims of creditors. Creditors' claims are defined and have to be met within a specified period. The claim of owners' changes and the amount payable to them can be determined only when the firm is liquidated (Myers, 1984). Cash shortage will disrupt the firm's manufacturing operation, while excessive cash will

simply remain idle, without contributing anything towards the firm's profitability. Thus, a major function of the financial manager is to maintain a sound cash position (Pandey, 1993).

Marketable securities are sometimes called near-cash items or bank- time deposits notes Mao (1969). The basic characteristic of near cash assets is that they can readily be converted into cash. Generally, when a firm has excess cash, it invests it in marketable securities. This kind of investment contributes some profit to the firm.

Cash management is concerned with the managing of cash flows into and out of the firm, cash flows within the firm, and cash balances held by the firm at a point of time by financing deficit or investing surplus cash. Therefore, the main aim of cash management is to maintain adequate control over cash position to keep the firm sufficiently liquid and to use excess cash in some profitable way (Pandey, 1993). In order to resolve the uncertainty about cash flow prediction and lack of synchronization between cash receipts and payments, the firm should adopt appropriate working capital management policy strategy.

Accounts Receivables

Trade credit is the most prominent of the modern business. It is considered as an essential marketing tool, acting as a bridge for the movement of goods through production and distribution stages to customers finally. Hendriksen (1992) underlines the importance of accounts recivables. A firm grants trade credit to protect its sales from the competitors and to attract the potential customers to buy its products at favorable terms. When the firm sells its products or services and does not receive cash for it immediately, the firm is said to have granted trade credit to customers. Trade credit thus creates account receivable which the firm is expected to collect in the near future. The level of receivables arising out of credit is thus influenced by either a conservative, moderate or an aggressive policy of the working capital management a firm adopts (Ross et al, 2004) Receivables constitute a substantial portion of current assets of several firms. Copeland et al (2005) note that as substantial amounts are tied-up in trade debtors, it needs careful analysis and proper working capital management policy for a firm to achieve its financial objective and goals.

Inventories

Inventories are stocks of the products a company is manufacturing for sale and components that make up the product. Inventories constitute the most significant assets of a large majority of companies in Kenya. According to Nyakundi (2003), on average inventories are approximately 60 per cent of current assets in public limited companies listed at the Nairobi Stock Exchange. Because of the large size of inventories maintained by firms, a considerable amount of fund is required to be committed to them. It is, therefore, absolutely imperative to manage inventories efficiently and effectively by adopting appropriate working capital management policy in order to avoid unnecessary investments in them (Ochieng, 2007). Ochieng adds that an undertaking neglecting appropriate working capital management policy of inventories will be jeopardizing its long-run profitability and the firm may fail ultimately.

Accounts payable

Another component of working capital is accounts payable, but it is different in the sense that it does not consume resources; instead it is often used as a short term source of finance. Thus it helps firms to reduce its cash operating cycle, but it has an implicit cost where discount is offered for early settlement of invoices. (Padachi, 2006).

2.2.3 PERFORMANCE MEASURES

Performance measurement is one of the most important management responsibilities of the chief financial officer because it subtly affects the way people behave. Owners of the firm want performance measures to be aligned with maximizing shareholder wealth, a goal that is easy to articulate but difficult to implement. Miller (1977) notes the working capital management policy a firm adopts to balance the trade- off of profitability and liquidity is anchored on some fundamental issues of working capital. These are categorized under performance measurements.

The Financing of Current Assets

This is measured as the proportion of short-term debt to a long-term debt. A restrictive short-term financial policy means a high proportion of short-term debt relative to long term financing while a flexible financing policy means less short-term debt to long-term debt (Ross et al, 2004).

Flexible Short-Term Financial Policy

A flexible short-term financial policy includes:

- Keeping large balances of cash and marketable securities.
- Making large investment inventory.
- Granting liberal credit terms, which result in a high level of accounts receivable

Flexible short-term financial policies are costly in that they require high cash outflows to finance cash and marketable securities, inventory and account receivable. However, future cash inflows are highest with a flexible policy. Sales are stimulated by the use of a credit policy that provides liberal financing to customers (Burns & Walker, 1991).

A large amount of inventory provides a quick delivery service to customers and increases sales. In addition, the firm can probably charge higher prices for the quick delivery service and the liberal credit terms of flexible policies. A flexible policy also may result in fewer production stoppages because of inventory shortages.

2.3 WORKING CAPITAL THEORIES

There are various theories that support the significance of working capital. Some of the most important theories pertinent to working capital management include the following:

Quantity Theory of Money

According to the 'quantity theory' money is held only for purpose of making payments for current transactions (Keynes, 1936). This theory was proposed by Irving Fisher in 1911. Fisher's version of the quantity theory can be explained in terms of the equation of exchange model.

$$MV = PT \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

Where M is the nominal stock of money in circulation, V is the transaction velocity of circulation of money, that is, the average number of times the given quantity of money changes hand in transactions, P is the average price of all transactions and T is the number of transactions that take place during the time period. Both MV and PT measure the total value of transactions during the time period and so must be identical. Thus, 'the equation' is really an identity which

must always be true; it tells us only that the total amount of money handed over in transactions equal to the value of what is sold.

Keynesian Theory of Money

Keynes (1936) in his great work: "The General Theory of Employment, Interest and Money" identified three reasons why liquidity is important; the speculative motive, the precautionary motive and the transaction motive.

The speculative motive is the need to hold cash to be able to take advantage of, for example, bargain purchase, and favourable exchange rate fluctuations in the case of international firms. For most firms, reserve borrowing ability and marketable securities can be used to satisfy speculative motives.

The precautionary motive is the need for a safety supply to act as financial reserve. Once again, there is probably a precautionary motive for liquidity. However, given that the value of money market instruments is relatively certain and that instruments such as T – bills are extremely liquid, there is no real need to hold substantial amount of cash for precautionary purpose.

Cash is needed to satisfy the transaction motive, the need to have cash on hand to pay bills. Transaction related needs come from collection activities of the firm. The disbursement of cash includes the payment of wages and salaries, trade debts, taxes and dividends.

Baumol Inventory Model

Baumol (1952) developed the inventory development model. The Baumol model is based on the Economic Order Quality (EOQ). The objective is to determine the optimal target cash balance. Baumol made the following assumptions in his model. The firm is able to forecast its cash requirements with certainty and receive a specific amount at regular intervals, the firm's cash payments occur uniformly over a period of time, that is, a steady rate of cash outflows; the opportunity cost of holding cash is known and does not change over time. Cash holdings incur an opportunity cost in the form of opportunity forgone and the firm will incur the same

transactions cost whenever it converts securities to cash. Each transaction incurs a fixed and variable cost. Below is the equation representation in Baumol model of cash management: Holding cost = K(C/2) total cost =K(C/2 +c (T/C) and Transaction Cost = c (T/C)

Limitations of the Baumol model are: it assumes no cash receipts during the projected period, obviously cash is coming in and out on a frequent basis and, no safety stock is allowed for, reason being it only takes a short amount of time to sell marketable securities.

The Modern Quantity Theory

Milton Friedman restated the quantity theory of money in 1956 as a theory of demand for money and this modern quantity theory has become the basis of news put forward by monetarists (Copeland et al, 2005). In this theory, money is seen as just one of a number of ways in which wealth can be held, along with all kinds of financial asset consumer durables, property and human wealth. According to Friedman, money has a convenience yield in the sense that its holding saves time and effort in carrying transactions.

2.4 TYPES OF WORKING CAPITAL MANAGEMENT POLICIES

An individual company's investment in working capital is related to the type of industry in which it operates and the essential working capital policy the company adopts. Working capital investment decisions concern how much of the firm's limited resources should be invested in working capital. Financing decisions relate to how the investment in working capital is to be funded. What may be considered an acceptable level of working capital for one industry or line of business may be unacceptable (i.e too low or too high) in another due to different operating or business characteristics across industries. Working capital requirements are also likely to change over time in response to the nature of a company's operations, for example, as firm progresses from growth to a maturity stage in its life cycle (Collins et al, 1996).

Pandey (1993) underlines three distrint types of working capital policies which a company may pursue; **aggressive policy, moderate policy** and **conservative policy.** The type of policy adopted relates to the firm's general approach to the investing and financing of its working capital needs. Aggressive and conservative policies tend to represent the opposite ends of a spectrum of working capital policy options. The policies differ in other attitudes to both the

investment in and the financing of current assets. The more conservative in attitude the policy is, the greater the level of investment in current assets and the greater the firm's reliance on long term capital (in the form of debt or equity) to finance the investment in current assets. Conversely, the more aggressive the working capital policy the lower the level of investment in current assets and the less is the firm's reliance on long term capital to finance current assets (Nyakundi, 2003).

Financing of current assets from current liabilities particularly in the form of interest free credit from suppliers is a less expensive source of financing than equity or long-term debt capital (Pandey, 1995). Gitman and Maxwell observe that the type of working capital policy operated will be dictated by such factors as growth rate of a company, its size, the nature of its industry whether it is manufacturing or non manufacturing and by the risk attitude of the firm's management. Copeland and Weston (1998) note that as far as investment is concerned a conservative working capital policy is the play it safe philosophy. At its most conservative, the policy will attempt to provide sufficient long-term financing to cover all anticipated eventualities

2. 4. 1 CONSERVATIVE POLICY

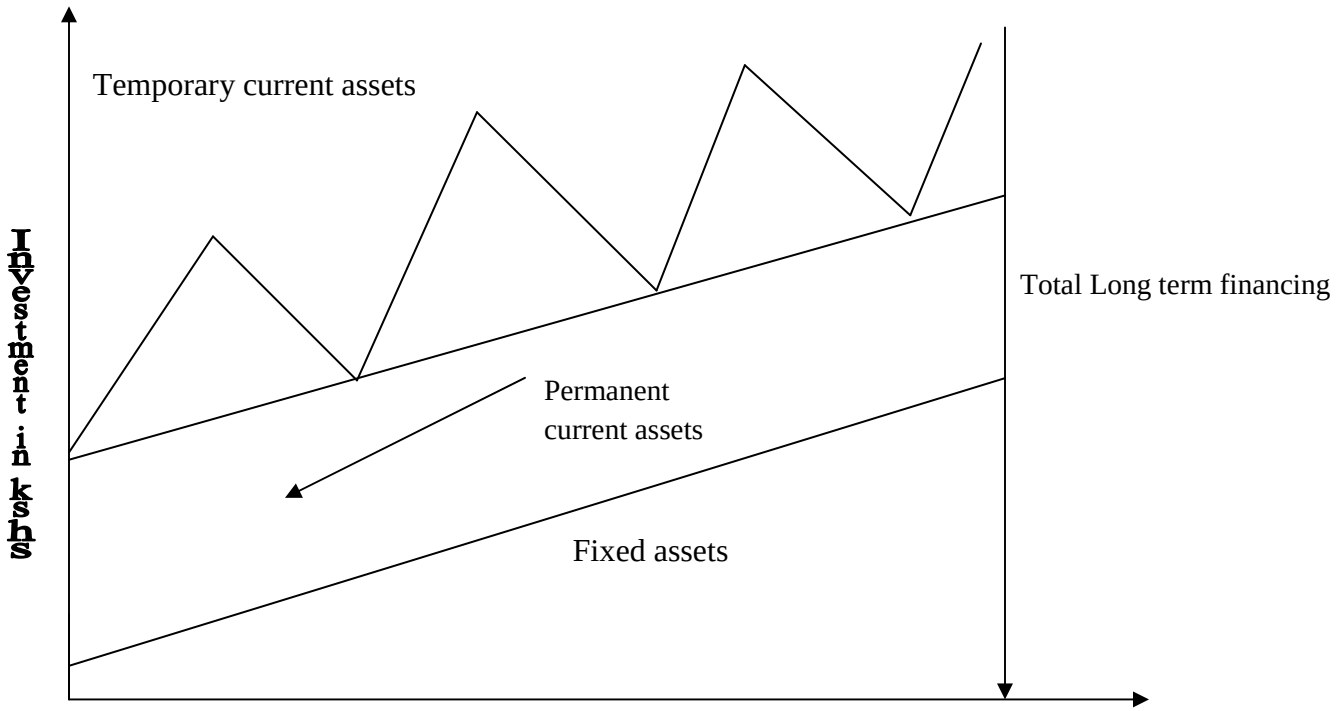
A conservative policy implies relatively high investment in current assets in relation to sales, the current assets to sales ratio will be comparatively high and asset turn over ratios will be low. In a conservative approach, stock and cash levels will generally be kept high to avoid stock - out and illiquidity costs. There is also likely to be a sizeable investment in short-term bank deposits and other short term liquid investment (Donaldson, 1961).

At one extreme, a company may finance its entire current asset requirement with long-term funds including its peak temporary requirements. In operating conservative policy, short-term funding may only be called upon as a fallback or emergency source of funding notes Nyakundi (2003). The investment in current assets is divided into permanent current assets and temporary current assets. The investment in permanent current assets represents the core, or minimum level of investment in current assets required on a continual basis. In addition to permanent current assets, the business may need to invest in temporary assets, to accommodate fluctuations in its business (Brealey & Myers, 1991). Weston and Copeland (1998) however find

that at its most extreme, the conservative working capital policy assumes somewhat unrealistically the absence of any spontaneous funding from current liabilities such as trade creditor. Spontaneous funding is the type of funding which occurs virtually automatically when a firm acquires goods and services from its suppliers on credit (Weston and Copeland, 1998).

Weston and Copeland (1998) further observe that as the conservative policy relies on long-term financing, this also makes it a more expensive policy to follow than one which follows short-term financing. However, they say it is also the low risk working capital policy as the company is not dependent upon access to short term funds and is not therefore exposed to the volatility of short-term interest rates or to unexpected changes in general economic conditions.

Figure 2. Conservative working capital policy



Source: McMenamin1999

In contrast, long-term financing although generally expensive, is more certain and stable with regards to the term of finance, its costs and its conditions. The firm pays a price for certainty and stability. Long-term sources of finance such as equity and long term loans are more certain and stable and consequently they tend to be more expensive (McMenamin, 1999).

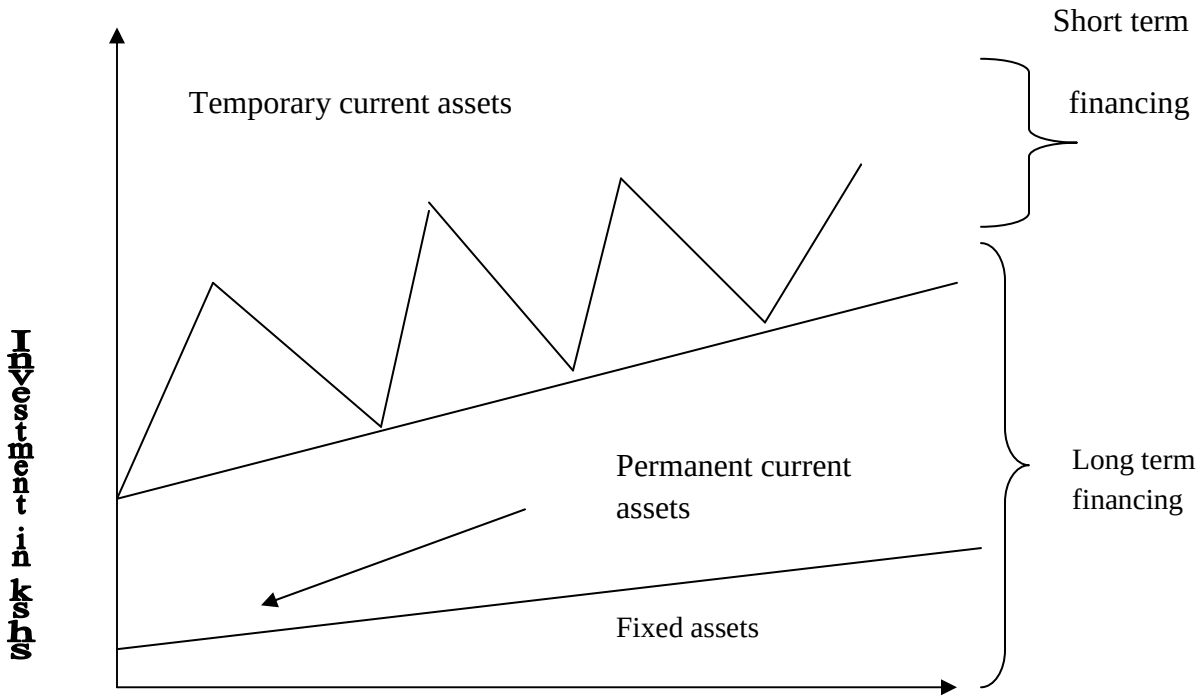
Moreover a short-term finance is frequently repayable on demand by the lender and renewal or “roll over” of short-term financing is by no means guaranteed. In fact on some occasions, Gitman (1997) notes that it may only be possible at the expense of accepting higher interest rates and tougher borrowing conditions. All these factors increase the variability associated with short-term financing and increase the firm’s risks of experiencing liquidity difficulties. Thus, the net effect of a conservative working capital policy is lower than moderate returns for a company but also lower than moderate risk of illiquidity or insolvency.

2 5.2 AN AGGRESSIVE WORKING CAPITAL POLICY

An aggressive capital policy relies on minimum investment in current assets and is highly dependent on access to short-term financing.With an aggressive policy total investment in current assets is kept to a minimum. The current assets to sales ratio will be much higher and the current turnover rates much higher in comparison to a conservative policy.

In terms of financing, McMenamin (1999) says that a company following an aggressive working capital policy will use long-term finance to fund its investment in permanent fixed assets and also a substantial part of its permanent current assets. Short term financing will be used to fund temporary current assets needs and also part of the permanent current assets requirements.

Figure 3: Aggressive working capital policy



Source : McMenamin 1999

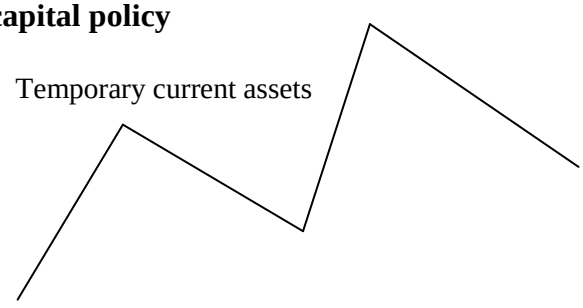
Compared with conservative and moderate policies, an aggressive working capital policy will achieve higher returns but will also carry high risk due to its higher dependency on short term finance (McMenamin, 1999).

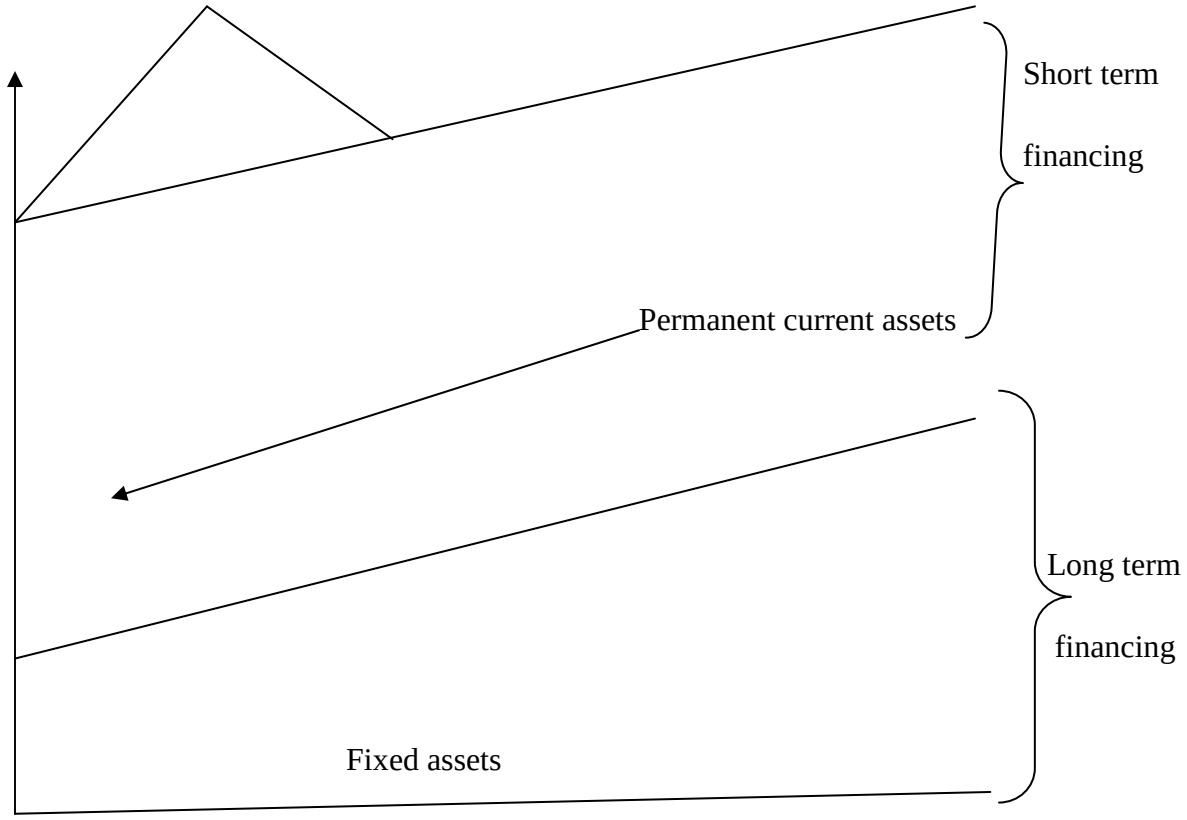
2. 4.3 MODERATE WORKING CAPITAL POLICY

A moderate or balanced working capital policy falls midway between the aggressive and conservative working capital policies. With a moderate policy, the level of investment in current assets is neither lean nor excessive. Following a moderate policy, long-term funds are used to finance the investment in fixed asset and permanent components of current assets investments. Temporary or seasonal current assets are financed by short term sources of finance.

The moderate policy is illustrated in figure 4 below

Figure 4: Moderate working capital policy





Source: McMenamin1999

The moderate policy is less risky than the aggressive but more risky than the conservative policy. The company only resorts to short-term financing when seasonal and other temporary demand requires it (Gitman, 1997). Returns under a moderate policy are correspondingly higher than under a conservative but lower than under an aggressive policy. For purpose of this study firms whose long-term funding of working capital is more than forty percent but less than seventy percent will be classified as following moderate working capital management policy.

2.5 EMPIRICAL LITERATURE

The subject of working capital management has been extensively explored in the discipline of finance. However, very few studies have been conducted in Kenya to address the appropriate working capital policies that relate to investment and financing of working capital as well as the risk and return associated with a particular working capital policy.

A study carried out in India on British American Tobacco in Bangladesh Company Ltd for a period of five years from 1999 to 2003 to analyze and evaluate receivables management along its impact on working capital found out that effective management of working capital leads to profitability (Sayaduzzaman, 2003). Basing his research on the secondary data contained in the financial statements of the Bangladesh Company for a period of five years, Sayaduzzaman finds the use of short-term finance to fund the working capital enhances a firm's profitability because the firm takes advantages of cheap spontaneous funding from current liabilities such as trade creditors. Spontaneous funding is the type of funding which occurs virtually automatically when a firm acquires goods and services from its suppliers on credit (Weston and Copeland, 1998). This cheap and source of funds is however possible only when a firm makes repayment of its current assets and thus remains in good books with the creditors. Sayaduzzaman draws experiences from India in the management of inventory, debtors, cash balance and current liabilities for profitable firms.

Kessen (2003) draws experience from Mauritia. In her study on the trends in working capital management and its impact on the firm's performance, Kessen finds that a comprehensive measure of profitability is best captured by computing the return on total assets. The study which covered a period of six years from 1998 to 2003 had sample of five small manufacturing firms and data collected from financial statements of the sample firms having legal entity and have filed annual returns to the registrar of companies. Her study also wanted to establish the trends in working capital need for firms and to examine the possible cause for significant differences between industries. For the purpose of her study, profitability was measured by return on total assets. Kessen's study finds that the working capital needs of an organization change over time

as does its internal cash generation rate. As such small firms should ensure a good synchronization of its assets and liabilities viz-a-viz the working capital management policy adopted.

In a similar study but based on working capital management and profitability in Pakistan, Raheman and Nasr (2007) say that the negative relationship between inventory period and profitability is as a result of declining sales to lower profits and more inventory. This, they say, is more pronounced where small firms use more long-term funding to finance both current and fixed assets. However, Myers' (2003) findings on the relationship between a firm's profitability and the inventory period challenge Raheman's and Nasr's findings. Myers says that leverage is the main variable affecting a firm's profitability negatively but not the inventory period. His findings suggest that highly leveraged firms are softer competitors that will curtail investment and so their insufficient power of competition may lead to decrease in profitability.

Samiloglu and Demirqunes (2008) find that working capital policies are the main determinants of a firm's profitability as far the working capital is concerned. Though they never say which working capital policy guarantees a higher profitability, their studies only mention conservative policy with no reference to the remaining two - aggressive and moderate policies. They carried out a study on a sample of fifty listed manufacturing firms at the Istanbul Stock Exchange, Turkey, for a period of ten years, which is from 1998 to 2007. Their dependent variable of the regression model was return on assets.

Their empirical results show that for the mentioned sample and period, capital management policy significantly affects profitability of Turkish manufacturing firms. However, they hasten to add that cash conversion cycle, size of a firm and fixed financial assets have no statistically significant effects on the firm's profitability. But where there are solid capital management policies, they argue that cash conversion cycle, size and fixed financial assets significantly affect a firm's profitability.

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

exhibit volatile cash flows, and a high reliance on short-term debt. The recent work of Howorth and Westhead (2003), suggest that small companies tend to focus on some areas of working capital management where they can expect to improve marginal returns. For small and growing businesses, an efficient working capital management is a vital component of success and survival; i.e both profitability and liquidity (Peel and Wilson, 1996). They further assert that smaller firms should adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. The study of Grablowsky (1976) and others have showed a significant relationship between various success measures and the employment of formal working capital policies and procedures. Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance (Walker and Petty, 1978; Deakins et al, 2001).

Given these peculiarities, Peel and Wilson (1996) have stressed the efficient management of working capital,and more recently good credit management practice as being pivotal to the health and performance of the small firm sector. Along the same line, Berry et al (2002) finds that SMEs have not developed their financial management practices to any great extent and they conclude that owner-managers should be made aware of the importance and benefits that can accrue from improved financial management practices. The study conducted by De Chazal Du Mee (1998) revealed that 60% enterprises suffer from cash flow problems. Narasimhan and Murty (2001) stress on the need for many industries to improve their return on capital employed (ROCE) by focusing on some critical areas such as cost containment, reducing investment in working capital and improving working capital efficiency. The pioneer work of Shin and Soenen (1998) and the more recent study of Deloof (2003) have found a strong significant relationship between the measures of WCM and corporate profitability. Their findings suggest that managers can increase profitability by reducing the number of day's accounts receivable and inventories. This is particularly important for small growing firms who need to finance increasing amounts of debtors.

Most of the empirical studies on working capital have been conducted in settings outside Kenya. In the local settings however, only a few studies have been carried out by MBA students of University of Nairobi on working capital management for a period of ten years from 1999 to 2009. This shows there is very little local empirical literature on working capital management.

Nyakundi (2003) observes that aggressive working capital management policy is the most predominant among public companies in Kenya. He says that this would be partly due to the high cost of long-term funds in Kenya which, for most part of the research period was five years, was above twenty percent. His research findings however corroborated that of Samiloglu and Demirqunes carried out for a period of ten years in Turkey on firms listed at Istanbul Stock Exchange. Management of most companies would tend to use the short-term funds like trade creditors which often carry very minimal direct costs, adds Nyakundi. The cost consideration thus dominates the need to match the duration of the source of funds with the life of the assets to be financed. Under the maturity matching concept, Nyakundi (2003) says that one would have expected that the companies that require heavy investment in current assets could use more long term financing but this was not the case. The other source of long-term funds- the owner's equity, he says might not have been attractive to the companies because of the flotation costs associated with raising such funds besides the annual dividend expectations from the shareholders.

Ochieng (2006) on his studies on the effects of the relationship between working capital of firms listed at the Nairobi Stock Exchange and the economic activity in Kenya finds that the liquidity of the firms, as measured by the current and quick ratios, increases with economic expansion and decreases during economic showdowns. He however says that the liquidity positions reacted differently to various economic indicators such as inflation and lending rates. With inflation, Ochieng says the study showed that for most firms, inflation was not significant. He says a massive 83% of the firms did not find inflation significant. This means, he adds, that the working capital policy decisions are indifferent to the fluctuations of inflations. With lending rates, however he finds that lending rates indeed affect the amount of working capital policy of a firm. A study by Lamberson (1991) also supports the same findings. A study undertaken by (Nyaga, 2007) concluded that performance of manufacturing firms listed at the NSE relied heavily on short- term sources of financing citing the urgent need of being liquid. He observed that the firms compromised liquidity at the expense of profitability. It could be true that over reliance on the needs to be liquid could lead to low profitability and this calls for a proper working capital management policy which has positively impact on a firm's profitability.

2.6 CONCLUSION

The use of either short – term finance or long – term finance to fund the working capital has different impacts to a firm's profitability. Short – term financing enhances a firm's return because the firm enjoys the advantage of cheap spontaneous funding from current liabilities offered by trade creditors (Sayaduzzaman, 2003). Kessen (2003) notes the trends in the working capital management and its impacts on a firm's performance is a comprehensive measure of profitability as captured by the computation of the return on total assets. Working capital needs of an organization change over time with their internal cash generation is also influenced by the firm's size and therefore working capital management policy is irrelevant observes Nyakundi (2003). Empirical studies by Samiloglu and Demirqunes (2008) however give strong evidence that capital management policy significantly affects profitability of manufacturing firms in Turkey. The vulnerability of small firms to fluctuations in the level of working capital starve them of cash and therefore small firms tend to have a relatively high proportion of current assets, liquidity and heavy reliance on short – term debt.

The theoretical and empirical literatures reveal three important aspects that give impetus to working capital management policy. Investment, financing and risk and returns give different profit levels depending on the particular working capital policy adopted by an individual firm due to different operating business characteristics. Pandey (1985) alludes that financing of current assets from current liabilities in the form of interest free credit from suppliers is a less cost of financing source and although it is cheap it is a high risk capita. On the other hand, Copeland and Weston (1998) document preference to the play it safe philosophy of conservative working capital management policy. They observe that the most conservative policy will attempt to provide sufficient long – term financing to cover all unanticipated eventualities. The firm is not subjected to frequent interrupted production and stock – outs of short – term loans and thus makes the short – term source of financing risky.

Generally the results of previous studies document that there is no working capital management policy that is superior to others. There seems to be no conclusive agreements as to which working capital management policy guarantees a higher profitability and this study

therefore is a modest attempt to close the knowledge gap by analyzing the relationship between various working capital management policies and profitability in the local setting at the Nairobi Stock Exchange.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter provides the information on research design, population, sample, data collection and data analysis technique employed in the study.

3.2 RESEARCH DESIGN

The study used survey research design. This involves collection of data from only a portion of population of interest in order to determine the current status of the population with respect to one or more variables through observation of conditions, events, people or processes or, by questioning people about various issues (Cooper & Emory, 1995). The research survey was appropriate since it offered the researcher dual opportunities of observing and analyzing the historical statistical data of the financial statements of the listed sampled companies. The sample survey employed the use of analytical secondary data. Secondary source of data were readily available in the form of balance sheets and profit and loss accounts as contained in annual financial statements of public companies listed at the Nairobi Stock Exchange, over a period of five years. The analytical survey deployed the use of facts or information that was already available in order to make a critical evaluation of the historical data in the financial statements.

3.3 POPULATION

The study was based on all public companies listed at the Nairobi Stock Exchange These formed population of interest and they were fifty five as at 31st December, 2009. The sample was drawn from the population listing frame from the records of the Nairobi Stock Exchange.

3.4 SAMPLE

The sample was drawn using stratified sampling method. This ensured all the five main investment segments at the Nairobi Stock Exchange are represented. The sectors represented

were Agricultural, Commercial and Services, Finance and Investment, Industrial and Allied and the Alternative Investment Market Segment. The sample size was nineteen companies.

Proportionate stratified sampling design was used. The sampling fraction was the same for each of the five stratums that formed the sample size of nineteen elements. This ensured that all the investment segments at the Nairobi Stock Exchange were represented in the sample size in the proportions in which they occurred in the total population. Since the total population was fifty five and the sample size nineteen elements, the uniform sampling fraction for all the sectors was $19/_{55}$ or 36%.Thus the proportionate stratified sample size was as calculated in the table below.

PROPORTIONATE STRATIFIED RANDOM SAMPLING

Table : 1

SECTOR	**NUMBER OF ELEMENTS**	**NUMBER OF SUBJECTS IN THE SAMPLE**
Agriculture	3	1
Commercial & Services	12	4
Finance & Investment	15	5
Industrial & Allied	17	6
Alternate Market Segment	8	3
TOTAL	55	**19**

3.5 DATA COLLECTION PROCEDURE

The research study employed the use of secondary source of data. The secondary data was derived from financial statements of listed companies at the Nairobi Stock Exchange (NSE).Two types of financial information were used. These were audited balance sheet and profit and loss accounts showing annual financial statements of the sampled companies. These data were collected for a period of five years. The period of the data collection was from the years 2005 to 2009.The specific data collected covering this five - year period were in the form of annual profits before tax, sales turn – over, current assets, current liabilities, fixed assets as well as the

financing aspects including the long term debt and equity for each year of financial statement of the sampled firms.

The data were also collected to show the break – down of the financing of current assets into long – term financing and short – term financing. This is because the nature of the data collected made it possible to compute performance measures that were used in statistical analysis. Data for efficiency ratios, namely accounts receivable, inventory, and accounts payable were as well collected for analysis.

3.6 DATA ANALYSIS

The data were analyzed with the aim of determining the impact of working capital policy on profitability among publicly listed companies in Kenya. This was achieved by developing a similar empirical framework first used by Shin and Soenen (1998) and the subsequent work of Deloof (2003). The study was extended further by analyzing the trends in working capital needs of the listed firms and to examine the possible causes for any significant differences between the five sectors. First, the cumulative capital requirement for each of the firms in the sample was computed as the total current assets and total fixed assets. The working capital management policy for each of the firms in the sample was determined by computing the portion of current assets that was financed using long-term funds. The computations were done for the independent explanatory variables using formulae for financial ratios shown in the appendix 1.

A simple arithmetic mean was used to come up with each firm's working capital management policy for the five year period. The companies in the sample were then grouped according to the type of working capital management policy based on the percentage of financing of current assets broken into three categories as shown below.

I. Conservative working capital management policy

All companies whose average long-term financing of current assets was at least 70%

II. Moderate working capital management policy

All companies listed at the Nairobi Stock Exchange whose long-term financing of current was more than 40% but less than 70%.

III Aggressive working capital management policy

All companies listed at the Nairobi Stock Exchange whose average long- term financing of current assets was 40% and below.

Computation of profitability measure

The next classification of the companies was based on profitability and the various working capital management policies. The average working capital policy and return on total asset for each company were computed. Return on Total Asset (ROTA) which is defined as profit before interest and tax divided by total assets was the preferred measure of profitability in this study. Most of these firms characterized by low fixed assets base rely to a large extent on accounts payable to fund their gross working capital. Thus, a comprehensive measure of profitability was best captured by computing the return on assets which was equal to the total liabilities of the firms, made up mainly of equity capital and current liabilities.

Control variables

In order to account for firm's size and other variables that may influence profits, the gearing ratio (financial debt/ total asset), the gross working capital turnover ratio (sales/current assets) and the ratio of current assets to total assets were included as control variables in regressions. The regressions also included the ratio of current liabilities to total assets to measure the degree of aggressive financing policy, with a high ratio being relatively more aggressive.

Test of significance

To test for statistical significance in the working capital management policies across groups of companies, the student 't' statistic was used. The test of significant was done at the individual company level and then compared for all the companies in the sample. The research

study used 95 percent significance level. The 95 percent, a significance of p= 0.05 was used since it is the generally accepted conventional level in social sciences research. This indicates that 95 times out of 100, we can be sure that there is a true or significant correlation between the two variables, and there is only a 5% chance that the relationship does not truly exist.

Regression Analysis

A multiple regression analysis model was used to find out if there was a relationship between the long-term financing of current assets and the return on total assets for the firms in the sample. Multiple regression analysis is a suitable model in this study because it predicts values for a criterion variable (DV) from the values for several predictor variables (IV). A descriptive application as in this study calls for controlling of confounding variables to better evaluate the contribution of other variables hence the suitability of the choice of multiple regression models.

The strength of the relationship was computed using r^2 formula, and then conclusion made on the basis of the result of coefficient of determination.

CHAPTER FOUR

4.0 DATA ANALYSIS

4.1 INTRODUCTION

This chapter presents data analysis, interpretation and discussion of the research findings. The findings are divided into two types, descriptive results and those obtained from regression analysis. The Statistical Package for Social Sciences, SPSS was used for both types of analysis. The findings are presented using tables.

4.2 THE EXPLANATORY VARIABLES

The efficiency ratios, namely accounts receivable, inventory and accounts payable have been computed using formulas as listed in Appendix 1. The cash conversion cycle (CCC) is used as a comprehensive measure of working capital as it allows the time lag between expenditure for the purchases of raw materials and the collection of sales of finished goods. The longer the cycle, the large the funds blocked in working capital. The return on assets is a better measure since it relates profitability to the business to the asset base.

4.3 CONTROL VARIABLES

In order to account for firm's size and the other variables that may influence profitability, sales a proxy for size (the natural logarithm of sales) and, the gearing ratio (financial debt/total assets), the gross working capital turnover ratio (sales /current assets) and the ratio of current assets to total assets are included as control variables in the regressions. The regressions also include the ratio of current liabilities to the total assts to measure the degree of aggressive financing policy with a high ratio being relatively more aggressive.

Table 1 gives the descriptive statistics for the main variables used in this study. Return on total assets is on average 5.6% with Finance and Investment sector having the highest return of 11%. The Agriculture sector reported a negative operating profit margin, which could be explained by their high foreign exchange risk exposure and high labour costs. The majority of the sectors have relied mostly on short term financing with Industrial and Allied sector more aggressive, with an average of 82%. On average firms collect their receivables after 65 days while they take on average 116 days to pay supplies. The average cash conversion cycle (CCC) is 105 days, implying that typical to the firms listed at the NSE turnover their stocks on an average of 3.3 times a year. This shows the influence of Commercial and Services, Financial and Investment, and Industrial and Allied sectors holding inventories for more than 150 days, with a maximum value of 1688 days.

Mean sales value for the sample companies is Kshs. 10 billion, with only Finance and Investment and Industrial and Allied sectors having values twice the amount. On average about 22% of all assets are financed with financial debt. It is also noteworthy that the average firm in the sample has a gross working capital turnover ratio of 3.1, thus indicating a lower operational efficiency.

4.4 WORKING CAPTIAL ANAYSIS

The major components of gross working capital include stocks, debtors cash and bank balances. The composition of working capital of working capital depends on a multiple of factors such as operating level, level of operational efficiency, inventory policies book debt policies, technology used and nature of the sector. While inter sector while variation is expected to be high, the degree of variation is expected to be low for firms within the sector. Table 2 gives an analysis of each component of the working capital and some interesting trends can be deduced.

A comparison of inventory composition of sectors over the years shows only slight improvement for the Alternative Investment Market Segment (AIMS) and the Agriculture sectors. It is interesting to note the consistent improvement in trade debtors share of current assets in all the sectors and except for the Agriculture, it represents more than 30% of total assets. Thus it can be

deduced that the listed companies have monitored the accounts receivable reasonably well and this could be partly due to their need for generating funds from the operating activities instead of relying from outside funds (borrowed funds).

Except for the AIMS, the other four sectors have great reliance on short term funds and this is even more in 2008. The Industrial and Allied sector is financing 85% of its assets out of current liabilities and this over reliance may be a threat to the sector's survival. In terms of liquidity, all the four sectors, Agriculture, Commercial and Services, Finance and Investment and Industrial and Allied sectors are having less liquid assets to meet their current obligations and if this becomes permanent, it may affect supplies of materials and thus production. The proportion of liquid assets to total assets is 70% for the Industrial and Allied and AIMS sectors indicating a low fixed asset base. This implies that these two sectors can operate with a relatively low investment in fixed assets as compared to the other sectors like Commercial and Service and Finance and Investment where the production tend to be heavily automated.

4.5 EMPIRICAL ANALYSIS

4.5.1 Impact of Working Capital Management on Profitability

Correlation Analysis

Table 3 presents Pearson correlation coefficients for the variables used to asses the impact of working capital management on profitability measured by return on total assets. ROTA is significantly positively correlated with Operating Profits Margin (OPM) and capital – turnover ratio, but negatively correlated with the measures of WCM, except for the cash conversion cycle. The positive relation for CCC is consistent with the view that resources are blocked at the different stage of the supply chain, thus prolonging the operating cycle. This might increase profits due to increased sales, especially where the costs of tied up capital is lower than the benefits of holding more inventories and granting more trade credit to customers. Also the listed companies at NSE may be able to obtain trade credit from suppliers and this is supported by the higher proportion of current liabilities to total assets for all the sectors except the Agriculture. The main empirical analysis in this study is derived from appropriate multivariate models, estimated using fixed effects and pooled OLS.

Regression Analysis

To investigate the impact of working capital policy on profitability, the model used for the regressions analysis is expressed in the general form as given in equation 1 below and the variable ivndays be placed in turn by the other explanatory variables AR days, , AP days and CCC.

ROTA = f (In sales, gear, cata, clta, turnca, ivndays) Equation (1)

$ROTA_{it} = \beta_0 + \beta_1 In\ sales_{it} + \beta_2 gear_{it} + \beta_3 Cata_{it} + \beta_4 Clta_{it} + \beta_5 turnca_{it} + \beta_6 ivndays_{it} + \varepsilon_{it}$

Model 1 ( )

$ROTA_{it} = \beta_0 + \beta_1 In\ sales + \beta_2 gear_{it} + \beta_3 Cata_{it} + \beta_4 Clta_{it} + \beta_5 turnca_{it} + \beta_6 ivndays_{it} + \varepsilon_{it}$

Model 2 ( )

$ROTA_{it} = \beta_0 + \beta_1 In\ sales + \beta_2 gear_{it} + \beta_3 Cata_{it} + \beta_4 Clta_{it} + \beta_5 turnca_{it} + \beta_6 ivndays_{it} + \varepsilon_{it}$

Model 3 ( )

$ROTA_{it} = \beta_0 + \beta_1 In\ sales + \beta_2 gear_{it} + \beta_3 Cata_{it} + \beta_4 Clta_{it} + \beta_5 turnca_{it} + \beta_6 ivndays_{it} + \varepsilon_{it}$

Model 4 ( )

Where the subscript i denoting firms (cross –section dimension) ranging from 1 to 19 and t denoting years (time –series dimensions) ranging from 1 to 5. The variables are defined as in Appendix 1.

The model specified above estimated the regression based framework (Fixed Effects and Pooled OLS) as employed by Deloof (2003). By using ROTA as a comprehensive measure of the profitability, the model includes asset –management and financing policy as a control variables. The data set used for this study is pooled across sectors and years giving a balanced panel of 95 firm –year observations.

Table 4 below gives the results of the fixed effects estimations (regressions 1 to 4) and for the pooled OLS (regressions 5 to 8). In all regressions, standard errors are calculated using White's correction for heteroscedacity. The OLS regressions were calculated for sector and year statistics.

19 Listed Companies at the NSE, 2005- 2009: 95 Firm –Year Observation

Dependent Variable Regression Model	Return on Total Assets Fixed Effects Pooled OLS							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ln− Sales	0.1562	0.1084	0.0926	0.1224	0.0705	0.0660	0.0517	0.0691
	(0.018)	(0.035)	(0.061)	(0.017)	(0.016)	(0.017)	(0.062)	(0.009)
Gearing	-01979	-0.2065	-01951	-0.1976	-0.1456	-0.1537	-0.1661	-0.1597
	(0.167)	(0.145)	(0.141	(0.162)	(0.128)	0.1125	(0.074)	(0.095)
CA/TA	0.2656	0.2574	0.2234	0.2257	0.1199	(0.046)	0.1016	0.1034
	(0.022)	(0.030)	(0.948)	(0.045)	(0.020)	-0.0294	(0.078)	(0.053)
CL/TA	-0.1035	-	-0.0596	-0.0665	-0.0311	(0.329)	-0.0203	-0.0243

	(0.133)	0.0828	(0.408)	(0.326	(0.301)	0.0116	(0.497)	(0.398)
CA_TURN	0.0165	(0.218)	0.0131	0.0159	0.0119	(0.000)	0.0108	
	(0.009)	0.0131	(0.005)	(0.003)	(0.0012)		(0.001)	0.0134)
INV_DAYS	0.0002	(0.004)			-			(0.000)
	(0.320)				0.00002			
AR_DAYS					(0.697)			
		-	-.0002			-		
AP_DAYS		0.0004	(0.178)			0.00006	-	
		(0.032)				(0.103)	0.00011	
				0.002				
CCC				(0.145)			(0.092)	-
								0.00008
Adjusted R^2	0.36		0.38	0.36				(0.105)
					0.13	0.14	0.15	0.14
		0.37						

Notes: P-values (robust for herroscedasticity) in parentheses. OLS-regression include 5 sector dummies and 5 yea r dummies

(results not reported). Variables are defined as in Appendix 1

A classical test for panel data is of the Fixed Effects Model (FEM) versus Random Effect Model (REM). In REM, it is assumed that there is a single common intercept term, but that the intercepts for individual firms vary from this common intercept in a random manner. To determine which of these estimators are more appropriate to use, both a fixed effects and random effects estimators were used to estimate the coefficient models in 1 to 4.The Hausman test,

which is a test for the null hypothesis of no correlation, rejects this null hypothesis and so the decision is taken to employ a fixed effects framework.

The first half of table 4 represents the results of regression 1 to 4; apply for fixed effects methodology, where intercept term is allowed to vary across firms. It is immediately obvious from the adjusted R-squared values that the use of a firm specific intercept improves the explanatory power of these models. In regression 5, the adjusted R-squared explains 14% of the variation in profitability under OLS but within a fixed effects framework the model's explanatory power increases to 36%.

While the coefficient of inventories variable is positive in regression 1, it has the expected sign in the OLS regression 5, but the coefficient is not significantly different from zero. The coefficient of the other variables

Included in the model are significant, except for financial debt and working capital financing. The firms' profitability as measures by ROTA increased with the firms' size, gross working capital efficiency and with a lesser aggressiveness of asset management. This is contrary to the traditional theory of asset managements, where a conservative policy is expected to sacrifice profitability at the expense of liquidity. This could be explained by the fact that firms listed at the NSE tend to have a lower fixed assets base and thus rely mostly on the turnover of current assets to generate more profits. This was observed consistently in the regression results, with a p-values ranging from 0-02 to 0.05. As reveals by the study of Deloof (2003), the capital structure has a negative impact on profitability; except for the findings of this study the coefficient of financial debt is insignificant for the FEM, but is significant fro the pooled regressions at 1.0 level. The aggressive financing policies observed for the sample listed firms at the NSE, which is expected to contribute positively to profitability have revealed otherwise. But however, the results are not significantly different from zero (P- values ranges from 0.133 to 0.497). This is a commonly observed feature of the listed companies at the NSE and this has the tendency of increasing the risk of a short –term liquidity problem.

In regression 2, a highly significant relation is found between ROTA and number of days account receivable (P- value = 0.032), which implies that an increase in the number of days accounts receivable by 1 day is associated with a decrease in profitability by 0.04%. The coefficient for accounts payable days is negative and confirms the negative correlation between profitability and the number of day's accounts payable. Unlike the previous work of Deloof (2003), the result is not significant for FEM, but is significant at 0.1 level for the pooled OLS. This would imply that less profitable firms listed at the NSE take longer to settle payment to creditors. So when the profitability falls, less cash is generated from operations and firms are able to survive by postponing payment to suppliers. Trade credit received from other firms in particular supplier of goods represent a major source of working capital financing. Therefore, when the prospects of profitability are poor, the listed firms at the NSE are able to seek an extension on the credit period from the suppliers. This is usually acceptable by the supplier as an element of trust is built based on the repeated orders placed by the firms.

In regression 5 to 8 the determinants of ROTA are estimated using pooled OLS instead of the FEM and include 5 years dummies and 5 sector dummies as independent variables. OLS estimation ignores firm specific differences in profitability. The results confirm the relationship between profitability and the working capital measurement. Except for inventory days, the coefficient of accounts receivable, accounts payable and CCC are significant. One significant difference between the FEM and the OLS estimation is that in regression (8) profitability decreases with the cash conversion cycle, which would imply that financial managers can increase profits by shortening their working capital cycle.

CHAPTER FIVE

CONCLUSION

The different analyses have identified critical working capital management policies and practices of the listed firms at the NSE and are expected to assist financial managers in identifying areas where they might improve the financial performance of their operations. The results have provided the managers with information regarding the basic working capital practices used by their peer at the NSE listed firms. The working capital needs of a firm change over times as does its internal cash generation rate. As such , the listed firms at the NSE should ensure a good synchronization of its assets and liabilities.

This study has shown that the Financial and Investment sector has been able to achieve high scores on the various components of working capital and this has positively impact on its profitability. On this premise, this sector may be referred as the ‘icon’ and could thus be used as best practice among firms list at the NSE.

SUGGESTION

This research concludes that there is a pressing need for further empirical studies to be undertaken on working capital management policies and profitability of listed firms at the NSE, in particular their working capital management policies by extending the sample size so that an industry wise analysis can help to uncover the factors that explain the better performance of some sectors and researchers to identify the requirements of, and specific problems faced by the listed firms at the NSE, especially as more emphasis is placed on the NSE by the Government.

CONSTRAINTS

This study has been constrained by the sample size, the short duration of the study and the nature of the data, which could have well affected the results. Further studies should aim at increasing the sample size for better and consistent panel estimates.

Appendix 1: Financial Data of the Sampled Companies Quoted at the NSE

Rea Vipingo Plantations

EMPLOYED ASSETS	2009 Kshs.'000	2008 Kshs.'000	2007 Kshs. '000	2006 Kshs.'000	2005 KshsSS.'000
Non-Current Assets	911,560	829,728	693,907	687,267	623,606
Current Assets	502,524	802,236	472,678	379,444	421,621
Current Liabilities	224,412	554,440	297,394	245,958	258,623
Net Current Assets	278,112	247,796	175,284	133,486	162,998
Total Net Assets	**1,189,672**	**1,077,524**	**869,191**	**820,753**	**786,604**
FINANCED BY					
Share Capital	300,000	300,000	300,000	300,000	300,000
Share Premium	84,496	84,496	84,496	84,496	84,496
Revaluation Surplus/Reserves	(90,814)	(54,149)	(99,997)	(89,488)	(58,045)
Retained Earnings	681,768	544,819	424,666	357,364	244,788
Proposed Dividends	-	-	-	-	48,000
Shareholders Fund	975,450	875,166	709,165	643,372	619,239
Non- Current Liabilities	214,222	202,358	160,026	177,381	167365
Minority Interest	-	-	-	-	-
Total Financing	**1,189,672**	**1,077,524**	**869,191**	**810,737**	**786,604**
TURNOVER	1,795023	1,305,892	1,189,527	1,181,207	1,104,363
Profit before taxation	635,627	227,219	167,785	157,358	185,139

Taxation	(189,026)	(59,066)	(52,483)	(44,782)	(60,677)
Profit/(Loss) after taxation	446,601	168,153	115,302	112,576	124,462
Minority Interests	(106,254)	(37, 560)	(23, 451)	(45,359)	(21,354)
Profit attributable to shareholders	**340,347**	**130,593**	**91,851**	**88,851**	**103,108**

Nation Media Group

ASSETS EMPLOYED	2009 Kshs. M	2008 Kshs. M	2007 Kshs. M	2006 Kshs. M	2005 Kshs. M
Non-Current Assets	2,806.8	2,694.8	2,284.2	2,087.2	2,051.0
Current Assets	3,765.6	4,027.8	3,614.4	3,204.8	2,375.7
Current Liabilities	1,769.4	2,172.9	1,895.4	1,436.4	1,158.9
Net Current Assets	1,996.2	1,854.9	1,719.0	1,768.4	1,216.8
Total Net Assets	**4,803.0**	**4,549.7**	**4,003.2**	**3,855.6**	**3,267.8**
FINANCED BY					
Share Capital	356.5	356.5	356.5	356.5	356.5
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	82.3	84.8	77.9	4.7	(9.3)
Retained Earnings	3,637.3	3,316.0	2,854.6	2,513.7	2,586.1
Proposed Dividends	570.4	570.4	534.8	713.0	356.5
Shareholders Fund	4,646.5	4,327.7	3,823.8	3,587.9	3,289.8
Non- Current Liabilities	89.3	235.1	267.2	358.9	37.1
Minority Interest	67.2	(13.1)	(87.8)	(91.2)	(59.1)
Total Financing	**4,803.0**	**4549.7**	**4,003.2**	**3,855.6**	**3,267.8**
TURNOVER	8,189.8	8,251.5	7,685.6	6,339.2	5,597.1

Profit before taxation	1,617.4	1,910.3	1,601.6	1,150.8	1,018.4
Taxation	(498)	(614.4)	(525.2)	(403)	(329.4)
Profit/(Loss) after taxation	1,119.7	1,306.7	1,076.4	747.2	689.0
Minority Interests	16.6	10.5	(13.2)	(36.0)	27.2
Profit attributable to shareholders	**1,103.1**	**1,296.2**	**1,089.6**	**783.2**	**716.2**

Car & General

EMPLOYED ASSETS	2009 Kshs '000	2008 Kshs '000	2007 Ksh '000	2006 Kshs '000	2005 Kshs '000
Non-Current Assets	4,807,954	5,019,479	5,104,990	5,057,752	5,274,816
Current Assets	1,419,209	1,149,394	1,487,542	1,048,130	816,182
Current Liabilities	629,533	581,231	810,500	764,083	742,443
Net Current Assets	789,676	568,163	677,042	284,047	73,739
Total Net Assets	**5,597,630**	**5,587,642**	**5,782,032**	**5,341,799**	**5,348,555**
FINANCED BY					
Share Capital	488,750	488,750	488,750	488,750	488,750
Share Premium	2,990	2,990	2,990	2,990	0
Revaluation Surplus/Reserves	2,078,703	2,127,805	2,613,478	2,663,785	4,794,064
Retained Earnings	1,433,355	1,368,685	1,011,031	804,985	0
Proposed Dividends	122,188	97,750	293,250	0	0
Shareholders Fund	4,125,986	4,085,980	4,409,499	3,960,510	5,282,814
Non- Current Liabilities	1,457,021	1,487,929	1,351,489	1,361,594	42,351
Minority Interest	14,623	13,733	21,044	19,695	23,390
Total Financing	**5,597,630**	**5,587,642**	**5,782,032**	**5,341,799**	**5,348,555**

TURNOVER	**4,251,285**	**4,371,947**	**4,117,143**	**3,123,166**	**4,220,851**
Profit before taxation	217,603	328,031	664,664	343,146	473,386
Taxation	(78,957)	(106,189)	(210,000)	(123,402)	(233,7140
Profit/(Loss) after taxation	138,646	221,842	454,664	219,744	239,672
Minority Interests	(890)	1,432	(5,675)	(4,164)	(9,966)
Profit attributable to shareholders	**137,756**	**223,274**	**448,989**	**215,280**	**229,706**

Marshalls

ASSETS EMPLOYED	2009 Kshs. '000'	2008 Ksh. '000'	2007 Ksh. '000'	2006 Ksh. '000'	2005 Ksh.'000'
Non-Current Assets	2,234,919	2,446,684	2,721,435	2,722,554	2,583,751
Current Assets	588,903	520,376	591,948	555,397	450,991
Current Liabilities	590,669	677,275	667,070	502,258	549,264
Net Current Assets	(1,766)	(156,899)	(75,122)	53,139	(98,273)
Total Net Assets	**2,233,153**	**2,289,785**	**2,646,313**	**2,775,693**	**2,485,478**
FINANCED BY					
Share Capital	98,000	98,000	98,000	98,000	98,000
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	969,771	1,018,515	1,956,325	1,992,145	1,993,174
Retained Earnings	729,481	672,851	-	-	-
Proposed Dividends	-	-	-	-	-
Shareholders Fund	1,797,252	1,789,366	2,054,325	2,109,745	2,091,174
Non- Current Liabilities	435,901	446,501	510,669	569,272	298,815
Minority Interest	0	53,918	81,319	96,676	95,489
Total Financing	**2,233,153**	**2,289,785**	**2,646,313**	**2,775,693**	**2,485,478**

TURNOVER	**1,082,190**	**1,250,943**	**1,212,796**	**1,090,782**	**1,258,425**
Profit before taxation	8,471	(95,934)	(85,766)	(16,615)	146,286
Taxation	(388)	41,767	42,135	54,507	(38,536)
Profit/(Loss) after taxation	8,083	(54,167)	(43,631)	37,892	107,750
Minority Interests	(490)	8,944	15,358	(1,187)	(7,527)
Profit attributable to shareholders	**7,593**	**(45,223)**	**(28,273)**	**36,705**	**100,223**

Barclays

EMPLOYED ASSETS	2009 Kshs. '000'	2008 Kshs. '000'	2007 Kshs. '000'	2006 Kshs. '000'	2005 Kshs. '000'
Non-Current Assets	10,673	9,775	4,674	3,285	3,171
Current Assets	167,763	158,086	152,982	154,371	101,055
Current Liabilities	111,289	138,588	138,731	114,437	68,141
Net Current Assets	56,474	19,498	18,925	39,934	32,914
Total Net Assets	**67,147**	**29,273**	**18,925**	**43,219**	**36,085**
FINANCED BY					
Share Capital	2,716	2,716	2,716	2,716	2,716
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	242	(247)	138	216	324
Retained Earnings	15,988	15,975	13,148	12,641	14,560
Proposed Dividends	2,473	2,037	1,562	2,090	2,217
Shareholders Fund	24,673	20,463	17,564	20,241	17,621

Non- Current Liabilities	3,643	9,459	1,361	2,161	1,311
Minority Interest	-	-	-	-	-
Total Financing	**67,147**	**29,273**	**18,925**	**43,219**	**36,085**
TURNOVER	**24,683**	**17,821**	**13,634**	**10,428**	**9,348**
Profit before taxation	8,634	8,016	7,078	6,475	5,427
Taxation	(2,643)	(2,491)	(2,168)	(1,983)	(1,698)
Profit/(Loss) after taxation	5,991	5,525	4,910	4,492	3,729
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**2,716**	**2,716**	**2,241**	**2,241**	**2,852**

Co-operative Bank

ASSETS EMPLOYED	2009 Kshs.'000'	2008 Kshs. '000'	2007 Kshs. '000'	2006 Kshs. '000'	2005 Kshs. '000'
Non-Current Assets	17,891,268	15,082,090	16,981,734	16,211,984	13,984,624
Current Assets	71,611,811	67,990,333	51,112,639	68,121,241	58,241,119
Current Liabilities	49,681,621	67,079,152	43,639,112	41,643,921	50,641,282
Net Current Assets	21,930,190	1,324,613	7,473,527	26,477,328	7,599,837
Total Net Assets	**39,821,458**	**26,406,703**	**24,455,261**	**42,689,304**	**21,581,461**
FINANCED BY					
Share Capital	3,671,924	3,492,371	2,856,450	2,660,363	2,583,641
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	3,944,968	3,498,370	2,698,362	1,343,685	1,214,233
Retained Earnings	-	4,286,736	-	-	-

Proposed Dividends	428,546	349,237	228,576	133,018	1,026,481
Shareholders Fund	-	13,609,141	6,460,281	-	-
Non- Current Liabilities	-	2,797,262	1,988,264	2,181,263	2,021,891
Minority Interest	-	-	-	-	-
Total Financing	**39,821,458**	**26,406,703**	**24,455,261**	**42,689,304**	**21,581,461**
TURNOVER	8,928,911	7,424,648	5,519,826	4,417,732	3,684,941
Profit before taxation	3,643,823	3,359,117	3,218,525	1,256,000	1,114,697
Taxation	[993,641]	[985,981]	[768,919]	[389,488]	[2,981,641]
Profit/(Loss) after taxation	2,650,182	2,373,936	1,549,606	866,512	641,629
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**1,681,213**	**1,224,983**	**1,124,643**	**1,268,441**	**1,181,262**

Housing Finance Co.

ASSETS EMPLOYED	2009 Kshs '000,	2008 Kshs '000'	2007 Kshs '000'	2006 Kshs '000'	2005 Kshs '000'
Non-Current Assets	8,062,457	7,975,560	7,078,561	6,877,503	6,345,324
Current Assets	5,578,489	4,467,907	4,098,467	3,967,489	3,287,401
Current Liabilities	2,876,098	2,987,391	2,331,678	2,671,309	1,927,397
Net Current Assets	2,702,391	1,480,516	1,766,789	1,296,180	1,360,004
Total Net Assets	**10,764,848**	**9,456,076**	**8,845,350**	**8,173,683**	**7,705,328**
FINANCED BY					
Share Capital	456,076	456,076	456,076	398,376	398,376

Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	2,356,908	1,467,335	1,287,334	1,047,245	876,309
Retained Earnings	1,467,390	1,026,378	1,569,003	1,346,376	1,089,231
Proposed Dividends	-	-	-	-	-
Shareholders Fund	3,280,374	2,947,780	3,312,413	2,791,997	2,363,916
Non- Current Liabilities	2,345,767	2,035,781	2,567,036	2,034,289	1,876,290
Minority Interest	5,138,707	4,472,515	2,965,901	3,347,397	2,977,496
Total Financing	**10,764,848**	**9,456,076**	**8,845,350**	**8,173,683**	**7,705,328**
TURNOVER	**17,098,347**	**16,561,732**	**16,208,048**	**15,783,906**	**14,489,391**
Profit before taxation	2,089,937	2,546,093	2,049,389	1,379,289	1,046,034
Taxation	(645,523)	(709,542)	(663,949)	(546,104)	(498,034)
Profit/(Loss) after taxation	1,444,704	1,836,551	1,385,440	833,185	548,000
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**1,444,704**	**1,836,551**	**1,385,440**	**833,185**	**548,000**

Centum Investment

EMPLOYED ASSETS	2009 Kshs.'000'	2008 Kshs. '000'	2007 Kshs. '000'	2006 Kshs '000'	2005 Kshs. '000'
Non-Current Assets	6,460,427	7,836,658	8,062,468	6,072,771	3,936,899
Current Assets	109,512	309,192	359,188	356,513	156,307
Current Liabilities	253,906	67,721	73,226	192,182	158,793
Net Current Assets	[144,394]	241,471	285,964	164,331	[2,486]
Total Net Assets	**6,316,033**	**8,051,129**	**8,348,430**	**6,237,102**	**3,934,413**

FINANCED BY					
Share Capital	274,976	274,976	274,976	274,976	274,976
Share Premium	589,753	589,753	589,753	589,753	589,753
Revaluation Surplus/Reserves	1,871,941	3,699,739	4,590,882	3,326,029	1,331,353
Retained Earnings	3,579,363	3,513,661	2,892,819	1,997,740	1,391,142
Proposed Dividends					164,986
Shareholders Fund	6,316,033	8,078,129	8,421,656	6,429,284	3,752,210
Non- Current Liabilities	-	-	-	48,604	182,198
Minority Interest	-	-	-	-	-
Total Financing	**6,316,033**	**8,051,129**	**6,421,656**	**6,237,102**	**3,934,413**
TURNOVER	3,915,86	581,514	804,888	403,742	239,786
Profit before taxation	475,653	985,280	1,185,778	696,849	373,999
Taxation	[162,473]	[116,960]	[70,718]	[89,891]	[78,765]
Profit/(Loss) after taxation	313180	868320	1,115,060	606,598	295,234
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**3,13180**	**868,320**	**1,115,060**	**606,598**	**295,234**

Jubilee

ASSETS EMPLOYED	2009 Kshs '000'	2008 Kshs '000'	2007 Kshs. '000'	2006 Kshs. '000'	2005 Kshs '000'
Non-Current Assets	4,689,112	3,684,841	3,263,948	2,941,658	2,883,643
Current Assets	15841920	14281610	13609902	13293641	1,2853,641
Current Liabilities	11684910	12643998	8950640	9908607	8894964

Net Current Assets	4157010	1637612	4659262	3385034	3958677
Total Net Assets	**8,846,122**	**5,322,453**	**7,923,210**	**6,326,692**	**6,842,320**
FINANCED BY					
Share capital	643,940	643,940	643,940	643,940	643,940
Share Premium	983,921	983,921	983,921	983,921	983,921
Revaluation Surplus/Reserves	4,643,940	3,620,950	4,808,179	3,643,921	3,084,640
Retained Earnings	2,544,321	43,642	1,457,170	1,024,910	2,099,819
Proposed Dividends	-	-	-	-	-
Shareholders Fund	8,846,122	5,322,453	7,923,210	6,326,692	6,842,320
Non- Current Liabilities	-	-	-	-	-
Minority Interest	-	-	-	-	-
Total Financing	**8,846,122**	**5,322,453**	**7,923,210**	**6,326,692**	**6,842,320**
TURNOVER	7,049,812	5,764,506	4,836,653	4,464,572	3,488,072
Profit before taxation	1,115776	900,692	809,566	664,687	470,726
Taxation	[202,103]	[187,457]	[146,495]	[105,172]	[75,610]
Profit/(Loss) after taxation	913,673	713,235	663,071	559,515	395,116
Minority Interests	-	76,996	46,225	31,354	47,345
Profit attributable to shareholders	**913,673**	**713,235**	**663,071**	**559,515**	**395,116**

BAT Kenya

EMPLOYED ASSETS	2009 Kshs. '000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	6,299,672	5,684,334	5,276,633	4,210,277	3,698,596

Current Assets	4,244,326	4,623,268	3,993,253	3,565,764	2,547,845
Current Liabilities	4,633,075	4,400,433	3,544,446	2,280,597	1,691,929
Net Current Assets	388,749	222,835	448,807	745,167	855,916
Total Net Assets	**5,910,923**	**5,907,169**	**5,725,440**	**4,955,444**	**4,554,512**
FINANCED BY					
Share Capital	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Share Premium	23	23	23	23	23
Revaluation Surplus/Reserves	1,152,866	1,187,808	1,223,110	733,204	756,515
Retained Earnings	1,494,187	1,455,814	1,420,117	1,711,258	1,686,525
Proposed Dividends	1,025,000	1,250,000	1,050,000	750,000	450,000
Shareholders Fund	4,672,076	4,893,645	4,693,250	4,194,485	3,893,063
Non- Current Liabilities	1,238,847	1,013,524	1,032,190	760,959	561,327
Minority Interest	-	-	-	-	-
Total Financing	**5,910,000**	**5,907,164**	**5,725,440**	**4,955,444**	**4,554,512**
TURNOVER	18,719,542	17,435,970	15,770,234	12,895,171	11,192,080
Profit before taxation	2,108,964	2,416,913	2,049,596	1,746,526	2,008,971
Taxation	[630,533]	[716,518]	[663,949]	[545,104]	[626,933]
Profit/(Loss) after taxation	1,478,431	1,700,395	1,385,647	1,201,422	1,382,038
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**1,478,431**	**1,700,395**	**1,385,647**	**1,201,422**	**1,382,038**

Crown Berger

ASSETS EMPLOYED	2009 Kshs '000'	2008 Kshs '000'	2007 Kshs '000'	2006 Kshs '000'	2005 Kshs '000'
Non-Current Assets	4,976,564	4,231,098	3,743,026	3,976,347	2,845,675
Current Assets	15,985,098	18,054,876	16,390,234	15,067,953	15,267,378
Current Liabilities	11,054,562	11,678,367	10,387,123	9,467,214	9,367,156
Net Current Assets	4,930,536	2,376,509	3,003,111	3,600,739	2,900,222
Total Net Assets	**9,907,100**	**10,607,607**	**9,746,137**	**9,577,086**	**8,745,897**
FINANCED BY					
Share Capital	380,078	380,078	380,078	380,078	380,078
Share Premium	984,415	984,415	984,415	984,415	984,415
Revaluation Surplus/Reserves	4,675,986	4,098,456	3,156,089	4,708,176	3,815,643
Retained Earnings	2,674,012	2,021,876	3,291,378	2,573,089	1,986,478
Proposed Dividends	-	-	-	-	-
Shareholders Fund	8,714,491	7,484,825	7,811,960	8,645,758	7,166,614
Non- Current Liabilities	1,192,609	3,122,786	1,934,177	931,328	1,579,283
Minority Interest	-	-	-	-	-
Total Financing	**9,907,100**	**10,607,607**	**9,746,137**	**9,577,086**	**8,745,897**
TURNOVER	**17,048,168**	**15,568,079**	**14,836,037**	**14,098,976**	**13,389,309**
Profit before taxation	1,235,765	876,743	709,478	664,805	480,072
Taxation	(203,876)	(176,546)	(146,176)	(103,267)	(76,460)
Profit/(Loss) after taxation	1,031,889	700,197	563,302	560,538	403,612

Minority Interests	-	-	-	-	
Profit attributable to shareholders	**1,031,889**	**700,197**	**563,302**	**560,538**	**403,612**

East African Breweries

EMPLOYED ASSETS	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	16891852	15,719,734	13,002,948	10,908,686	9,923,587
Current Assets	18,941,937	17,534,514	18,103,247	13,873,011	12,701,832
Current Liabilities	9,432,296	8,867,918	8,203,822	4,290,427	4,042,591
Net Current Assets	**9,508,841**	**8,666,596**	**9,894,427**	**9,582,584**	**8,659,241**
Total Net Assets	26,400,093	24,386,330	22,902,373	20,491,270	18,582,828
FINANCED BY					
Share Capital	1,317,957	1,317,957	1,317,957	1,317,957	1,317,957
Share Premium	1,691,151	1,691,151	1,959,100	1,959,100	1,959,100
Revaluation Surplus/Reserves	1,473,289	1,473,289	1,500,350	1,573,221	2037,402
Retained Earnings	11,332,702	10,509,910	9,294786	8,967,173	7,289,201
Proposed Dividends	4,388,798	2,734,289	2,734,762	2,734,762	1,976,762
Shareholders Fund	20,621,803	19,980,780	18,802,668	16,891,530	15,256,172
Non- Current Liabilities	3,031,849	2,269,487	2,051,597	1,905,700	1,690,612
Minority Interest	2,746,441	2,136,063	2,048,108	1,694,040	1,636,044
Total Financing	**26,400,093**	**24,386,330**	**22,902,373**	**20,491,270**	**18,582,828**
TURNOVER	34,407,715	32,488,112	27,328,764	20,906,885	19,186,425
Profit before taxation	11,989,258	12,316,332	10,635,771	8,577,049	8,223,317

Taxation	[3,380,073]	[3,131,947]	3,106,880]	[2,167,007]	[2,447,143]
Profit/(Loss) after taxation	8,609,185	9,184,385	7,538,891	6,410,042	5,576,764
Minority Interests	1,420,659	1,630,591	[1,395,676]	[1,017,554]	[1,006,316]
Profit attributable to shareholders	**8,609,185**	**9,184,385**	**6,133,215**	**5,392,488**	**4,769,912**

Kenolkobil

ASSETS EMPLOYED	2009 Ksh.'000'	2008 Ksh.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	6,118,200	6,592,205	3,285,946	2,991,682	2,375,746
Current Assets	25,170,657	21,111,387	9,983,495	10,358,925	3,859,060
Current Liabilities	19,293,187	16,301,749	7,700,702	8,278,132	2,553,086
Net Current Assets	5,877,470	4,809,638	2,282,793	2,080,793	1,305,974
Total Net Assets	**11,995,670**	**11,406,843**	**5,568,739**	**5,072,475**	**3,681,720**
FINANCED BY					
Share Capital	73,588	73,588	50,848	50,738	50,398
Share Premium	5,166,350	5,166,350	16,650	12,562	-
Revaluation Surplus/Reserves	316,649	581,991	278,031	388,512	375,198
Retained Earnings	5,419,719	4,578,815	4,638,905	3,992,772	2,642,278
Proposed Dividends	478,322	515,116	-	228,319	201,592
Shareholders Fund	11,454,628	10,915,860	4,984,344	4,672,903	3,392,935
Non- Current Liabilities	541,042	490,983	584,305	399,572	288,785l
Minority Interest	-	-	-	-	-

Total Financing	**11,995,670**	**11,406,843**	**5,568,739**	**5,072,475**	**3,681,720**
TURNOVER	96,692,834	134,518,341	51,621,436	46,381,292	34,478,830
Profit before taxation	1,933,456	1,879,811	876,390	1,226,274	1,200,537
Taxation	[638,951]	[724,492]	[282,956]	[383,327]	[362,053]
Profit/(Loss) after taxation	1,294,505	1,155,319	593,434	842,947	838,484
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**1,294,505**	**1,155,319**	**593,434**	**842,947**	**838,484**

Mumias Sugar

EMPLOYED ASSETS	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	10,659,630	9,571,576	8,213,280	7,426,083	5,851,910
Current Assets	5,651,261	4,581,346	3,703,589	4,445,423	3,645,664
Current Liabilities	3,681,943	3,398,096	1,613,376	2,007,043	1,608,685
Net Current Assets	1,969,318	1,183,250	2,090213	2,438,380	2,036,979
Total Net Assets	**12,628,948**	**10,754,480**	**10,303,493**	**9,864,463**	**7,888,889**
FINANCED BY					
Share Capital	3,060,000	3,060,000	1,020,000	1,020,000	1,020,000
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	1,983,980	1,827,343	2,065,794	2,135,554	1,283,438
Retained Earnings	4,668,980	4,154,154	5,251,866	4,553,495	3,317,597
Proposed Dividends	-	-	-	-	459,000
Shareholders Fund	9,712,629	9,041,497	8,337,660	7,709,049	6,080,035
Non- Current Liabilities	2,916,319	1,712,983	1,965,833	1,154,414	1,808,854

Minority Interest	-	-	-	-	-
Total Financing	**12,628,948**	**10,754,480**	**10,303,493**	**9,864,463**	**7,888,889**
TURNOVER	**12,980,661**	**11,970,101**	**10,381,190**	**11,657,540**	**10,080,174**
Profit before taxation	1,961,680	1,589,204	1,901,894	2,219,889	1,843,381
Taxation	[408,680]	[375,365]	[516,283]	[693,274]	[553,551]
Profit/(Loss) after taxation	1,553,000	1,213,837	1,393,611	1,526,615	1,289,930
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**1,553,000**	**1,213,837**	**1,393,611**	**1,526,615**	**1,289,930**

A.Baumann & Co,

ASSETS EMPLOYED	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	33,598	48,129	47,861	82,295	107,964
Current Assets	62,322	78,229	89,902	72,938	81,067
Current Liabilities	54,989	76,777	51,560	34,052	26,011
Net Current Assets	7,333	1,452	38,342	38,886	55,056
Total Net Assets	**38,342**	**7,333**	**86,203**	**121,181**	**55,056**
FINANCED BY					
Share Capital	19,200	19,200	19,200	19,200	19,200
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves					
Retained Earnings	7,304	15,077	49,123	84,618	126,922

Proposed Dividends	-	-	-	-	-
Shareholders Fund	261,810	34,583	69,019	104,514	146,832
Non- Current Liabilities	14,121	14,998	17,184	16,667	16,188
Minority Interest	306	306	-	-	-
Total Financing	**38,342**	**7,333**	**86,203**	**121,181**	**55,056**
TURNOVER	**11,000**	**35,947**	**79,539**	**103,902**	**101,207**
Profit before taxation	11,000	35,947	[35,495]	42,318	[68,426]
Taxation	-	-	-	-	[4,651]
Profit/(Loss) after taxation	[7,773]	[34,436]	[35,495]	[12,318]	[73,007]
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**[7,773]**	**[34,436]**	**[35,495]**	**[12,318]**	**[73,007]**

Williamson Tea Kenya

EMPLOYED ASSETS	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	3,006,123	2,977,624	2,980,715	2,677,8676	2,677,570
Current Assets	915,042	602,701	774,134	3,238,636	3,331,954
Current Liabilities	490,105	276,030	324,764	180,090	233,816
Net Current Assets	424,937	326,671	449,370	3,058,546	3,108,138
Total Net Assets	**3,431,060**	**3,304,295**	**3,430,085**	**5,736,614**	**5,785,708**
FINANCED BY					
Share Capital	43,782	43,786	43,786	43,786	43,786
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	296,486	326,901	359,415	430,768	180,083

Retained Earnings	2,210,712	2,074,174	2,172,179	1,972,266	2,067,400
Proposed Dividends	-	-	-	-	-
Shareholders Fund	2,550,980	2,444,857	2,575,376	2,276,652	2,335,047
Non- Current Liabilities	801,609	780,201	762,730	698,590	685,796
Minority Interest	**78,471**	**79,237**	**91,979**	**80,304**	**87,295**
Total Financing	3,431,060	3,304,295	3,430,085	5,736,614	5,785,708
TURNOVER	**1,489,982**	**1,185,775**	**1,206,529**	**1,198,588**	**855,610**
Profit before taxation	145,341	(143,984)	214,067	139,754	123,870
Taxation	(35,471)	46,467	(71,233)	(43,182)	(41,105)
Profit/(Loss) after taxation	109,870	(97,517)	142,834	96,572	(82,765)
Minority Interests	-	(10,780)	3,163	(8,341)	(2,344)
Profit attributable to shareholders	**109,870**	**(97,517)**	**142,834**	**88,231**	**80,421**

Kapchorwa Tea

ASSETS EMPLOYED	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs. '000'	2006 Ksh. '000'	2005 Ksh. '000'
Non-Current Assets	820,156	773,597	851,504	804,306	810,063
Current Assets	347,641	208,461	258,390	161,095	224,717
Current Liabilities	206,571	117,585	128,725	71,318	103,803
Net Current Assets	**141,226**	**90,876**	**129,665**	**89,777**	**120,914**
Total Net Assets	961,226	864,473	981,167	894,083	930,977
FINANCED BY					

Share Capital	19,560	19,560	19,560`	19,560	19,560
Share Premium	-	-	-	-	-
Revaluation Surplus/Reserves	98,596	107,170	118,045	54,846	59,453
Retained Earnings	571,104	494,578	573,041	580,305	585,491
Proposed Dividends	-	-	-	-	-
Shareholders Fund	689,260	621,308	710,646	654,711	684,064
Non- Current Liabilities	271,966	243,165	270,523	239,372	246,913
Minority Interest	-	-	-	-	-
Total Financing	**961,226**	**243,165**	**981,167**	**894,083**	**930,977**
TURNOVER	**743,079**	**574,997**	**610,303**	**462,739**	**571,853**
Profit before taxation	99,735	(103,081)	2,054	(13,372)	37,277
Taxation	(29,827)	33,303	(2,982)	3,579	(11,188)
Profit/(Loss) after taxation	69,908	(69,778)	(928)	(9,793)	26,089
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	**69,908**	**(69,778)**	**(928)**	**(9,793)**	**26,089**

Athi River Mining

EMPLOYED ASSETS	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'
Non-Current Assets	8,778,345	4,467,467	3,321,696	3,197,514	2,181,627
Current Assets	3,362,746	1,885,011	1,182,981	1,081,814	1,057,037
Current Liabilities	3,353,762	1,842,931	1,066,348	1,081,698	520,465
Net Current Assets	8,984	42,080	116,633	[24,844]	536,572

Total Net Assets	**8,787,329**	**4,509,547**	**3,438,329**	**3,172,630**	**2,718,199**
FINANCED BY					
Share Capital	495,275	495,275	495,275	465,000	465,000
Share Premium	302,027	302,027	302,027	302,027	241,477
Revaluation Surplus/Reserves	1,531,797	35,323	37,055	38,787	40,519
Retained Earnings	1,886,662	1,362,975	944,390	610,174	415,223
Proposed Dividends	[86,831]	[68,057]	[43,981]	[30,662]	
Shareholders Fund	4,128,930	2,127,543	1,734,766	1,324,776	1,162,219
Non- Current Liabilities	4,658,399	2,382,004	1,666,345	1,798,138	1,508,230
Minority Interest			37,218	49,716	47,750
Total Financing	**8,787,329**	**4,509,547**	**3,438,329**	**3,172,630**	**2,718,199**
TURNOVER	**5,144,822**	**4,619,473**	**3,881,736**	**2,605,032**	**2,208,724**
Profit before taxation	948,714	705,450	620,640	387,868	295,920
Taxation	[302,940]	[201,996]	[198,981]	[123,311]	96,416
Profit/(Loss) after taxation	645,774	503,454	421,659	264,557	199,504
Minority Interests	-	-	-	-	4,380
Profit attributable to shareholders	**-**	**503,454**	**421,659**	**264,557**	**199,504**

KPL

ASSETS EMPLOYED	2009 Kshs.'000'	2008 Kshs.'000'	2007 Kshs.'000'	2006 Kshs.'000'	2005 Kshs.'000'

Non-Current Assets	8,778,345	4,467,467	3,321,696	3,197,514	2,168,995
Current Assets	3,662,746	1,885,011	1,182,981	1,056,814	1,057,037
Current Liabilities	3,352,762	1,842,931	1,066,348	1,081,698	520,465
Net Current Assets	8,984	42,080	116,633	[24,884]	536,572
Total Net Assets	**4,128,730**	**2,127,543**	**4,504,677**	**4,254,328**	**3,238,664**
FINANCED BY					
Share Capital	495,275	495,275	495,275	465,000	465,000
Share Premium	302,027	302,027	302,027	241,477	241,271
Revaluation Surplus/Reserves	1,531,797	35,323	37,055	38,787	40,519
Retained Earnings	1,886,662	1,362,975	944,390	610,174	415,223
Proposed Dividends	[86,831]	[68,057]	[43,981]	[30,662]	[209,969]
Shareholders Fund	4,128,730	2,127,543	4,504,677	4,254,328	3,238,664
Non- Current Liabilities	4,658,399	2,382,004	1,666,345	1,798,138	1,508,230
Minority Interest	-	-	-	-	-
Total Financing	**8,787,329**	**4,509,547**	**4,504,677**	**4,254,328**	**3,238,664**
TURNOVER	**5,144,822**	**4,619,473**	**3,881,736**	**2,605,032**	**2,208,724**
Profit before taxation	948,714	705,450	620,640	387,868	295,920
Taxation	[302,940]	[201,996]	[198,891]	[123,311]	[96,416]
Profit/(Loss) after taxation	645,774	503,454	421,659	264,557	199,504
Minority Interests	-	-	-	-	4,380
Profit attributable to shareholders	**645,774**	**503,454**	**421,659**	**264,557**	**199,504**

Table 1: Five Year Means and Standard Deviations for the Variables

	SECTORS					
VARIABLES	**All (N=348)**	**FB (n=36)**	**LG (n=720**	**PP (n=48)**	**PMP (n=114)**	**WF (n=78)**
ROTA	0.0563	0.0244	0.0261	0.1121	0.0691	0.0459
	(0.2077)	(0.0888)	(0.2709)	(0.1261)	(0.1449)	(0.2810)
OPM	0.0036	0.0158	-0.0476	0.0868	0.0226	-0.0336
	(0.3396)	(0.0679)	(0.5903)	(0.0886)	(0.0979)	(0.4106)
GEAR	0.2192	0.1867	0.1984	0.2477	0.2718	0.1591
	(0.3034)	(0.1985)	(0.3414)	(0.2546)	(0.3702)	0.1989)
CR	1.844	1.143	1.159	2.843	2.050	1.883
	(3.084)	(0.817)	(0.646)	(4.087)	(3.836)	(3.002)
QAR	0.940	0.623	0.567	1.531	0.969	1.023
	(1.629)	(0.709)	(0.662)	(2.341)	(1.472)	(2.097)
CA/TA	0.6471	0.609	0.705	0.493	0.659	0.680
	(0.02434)	(0.285)	(0.174)	(0.292)	(0.262)	(0.184)
CL/TA	0.7021	0.7433	0.683	0.409	0.828	0.686
	(0.08234)	(0.4864)	(0.278)	(0.276)	(1.287)	(0.563)
SK/CA	0.5150	0.5533	0.564	0.417	0.505	0.528
	(0.2863)	(0.3019)	(0.254)	(0.228)	(0.323)	(0.273)
TD/CA	03076	0.3500	0.337	0.397	0.236	0.309
	(0.2588)	(0.2458)	(0.261)	(0.298)	(0.215)	(0.274)

AC TURN	3.108	4.427	2.127	4.717	2.856	2.785
	(3.474)	(4.763)	(1.362)	(5.914)	(3.004)	(2.063)

Table 2: Components of Current Assets and Liquidity Ratios

Industry	**CR**		**QAR**		**SK/CA**		**TD/CA**		**CA/TA**		**CL/TA**	
	2004	2009	2004	2009	2004	2009	2004	2009	2004	2009	2004	2009
FB	1.24	1.07	0.56	0.70	0.59	0.50	0.49	0.33	0.65	0.58	0.75	0.77
LG	1.08	1.38	0.51	0.55	0.51	0.58	0.41	0.27	0.71	0.68	0.68	0.72
PMP	0.97	1.80	0.59	0.85	0.45	0.59	0.32	0.24	0.55	0.74	0.76	0.85
PP	2.24	2.13	1.05	1.56	0.39	0.36	0.40	0.27	0.45	0.50	0.49	0.40
WF	1.74	1.52	1.03	0.97	0.46	0.53	0.28	0.21	0.63	0.74	0.67	1.00

Appendix11 : Independent explanatory variable – Financial Ratios

VARIABLE NAME	DEFINITION
ROTA	Return on total assets is PBIT/Total Assets
A_TURN	Assets turn is Sales/Total Assets
GEAR	Gearing is Total Debt/Total Assets
CR	Current Ratio is Current Assets/Current Liabilities
QAR	Quick Asset Ratio is (Current Asset- Stock)/Current Liabilities
CA/TA	Current Assets to Total Assets
CL/TA	Current Liabilities to Total Assets
OPM	Operating profit margin is PBIT/ Sales
SK/CA	Stocks to Current Assets
TD/CA	Trade Debtors to Current Assets
INV _ DAYS	Number of Inventory days is (Stocks*365)/ Cost of Sales
AR_DAYS	No of days Accounts Receivable is (Accounts Receivable * 365) / Sales
AP_DAYS	No of days Accounts Payable is (Accounts Payable * 365) Cost of Sales
CCC	Cash Conversion Cycle is (INV_ days + AR_ days – AP_ days)
CA_ TURN	Current Assets Turnover is Sales/ Current Assets
LN_ Sales	LN_ Sales is the natural logarithm of sales

7.2 Appendix III : Mathematical formula

$$r^2 = \frac{a\sum y + b \sum xy - ny^2}{\sum y^2 - ny^2}$$

$$b = \frac{\sum xy - \sum x \sum y}{n\sum x^2 - n(\sum x)^2}$$

$$a = \bar{y} - b\bar{x}$$

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2 + S_2^2}{n_1 \quad n_2}}}$$

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