THE RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT PRACTICES AND PROFITABILITY OF COMPANIES QUOTED AT THE NAIROBI STOCK EXCHANGE

BY

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DECLARATION

This research project is my original work and has not been presented for degree in any other university

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DEDICATION

This research project is dedicated to my father, who taught me that the best kind of knowledge to have is that which is learned for its own sake. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time. Her vision for my life was to be great and useful in life.

My sincere and special dedications go to my dear wife Carole for her patience, encouragement, support and prayers throughout the research.

Thank you all and may God bless you.

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ABSRACT

Working capital management is important part in firm's financial management decision. An optimal working capital management is expected to contribute positively to the creation of a firm's value. To reach optimal working capital management. the firm's managers should control the trade-off between profitability and liquidity accurately. The purpose of this research was to establish the relationship between working capital management practices and profitability of companies quoted at the Nairobi Stock Exchange.

A census study of the companies listed at the Nairobi Stock Exchange as at 31st December 2009 was used. The researcher studied the effect of different variables of working capital management on the net operating profitability through questionnaires and a regression model. The researcher used pooled regression with net operating profitability being the dependent variable while different components of working capital management such as average collection period. inventory turnover. average payment period. cash conversion cycle and current ration being independent variables.

The findings of the research indicate that there is a significant negative relationship between net profitability and the average collection period for a sample of Kenyan firms listed at Nairobi stock Exchange. The finding implies that managers can improve profitability by reducing the credit period granted to their customers. It also implies that a more restrictive credit policy giving customers less time to make their payments improves performance. This is consistent with findings of previous similar researches. The findings will enhance the knowledge base of working capital management and help companies manage working capital efficiently.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Working capital is an important issue during financial decision making since its being a part of investment in assets that requires appropriate financing investments. However, working capital always being disregard in financial decision making since it involve investment and financing in short term period. Further, it acts as a restraint in financial performance, since it does not contribute to equity (Sanger, 2001). Though, it should be critical for the firm to sustain their short term investments since it will ensure the ability of the firm in longer period.

As per the accountants, working capital is a liquidation concept. Whether the firm will be able to pay off its debts using its cash flows is more important that what level of current or non-current assets it maintains. The difference between current assets and current liabilities is more important than the size of the investment either in current assets or current liabilities. The efficiency of working capital management finally depends upon liquidity that is maintained by the firm. Though several factors may decide the liquidity of a firm, changes in the cash flows were certain, less working capital would be required, usually, the problem stems from difficulty in forecasting inflows versus outflows.

Dilemma in working capital management is to achieve desired trade off between liquidity and profitability. Smith et al. (2007) referring to theory of risk and return, investment with more risk will result to more return. Thus firms with high liquidity of working capital may have low risk then low profitability. Conversely, firms with low liquidity of working capital, facing high risk results to high profitability. The issue here is in managing working capital, firm must take into considerations all the items in both accounts and try to balance the risk and return. The main objective of working capital management is to maintain an optimal balance between each of the working capital components. Business success heavily depends on the financial executives' ability to effectively manage receivables, inventory, and payables (Filbeck and Krueger, 2005).

Profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long-run. So measuring current and past profitability is very important. Profitability is measured with income and expenses. Income is generated from the activities of the business. A business that is highly profitable has the ability to reward its owners with a large return on the investment (Waweru and Kalani, 2009).

Firms can reduce financing costs or increase the funds available for expansion projects by minimizing the amount of investment tied up in the current assets. Most of the financial managers' time and efforts are allocated towards bringing non-optimal levels of current assets and current liabilities back to the optimal levels (Lamberson, 1995). An optimal level of working capital would be the one in which a balance is achieved between risk and efficiency. It requires continuous monitoring to maintain proper level in various components of working capital, for instance cash receivables, Inventory and payables.

The working capital meets the short term financing requirements of a firm. 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 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. The success of a firm depends ultimately, on its ability to generate cash receipts in excess of disbursements. The cash flow problem of many small businesses are exacerbated by poor financial management and in particular the lack of planning cash requirements (Jarvis et al, 1996).

Rafuse (1996) argued that attempts to improve working capital by delaying payment to creditors are counterproductive, and that altering debtor and creditor levels for individual tiers within a value system will rarely produce net benefit. He proposed that stock reduction generates systems wide financial improvements and other important benefits and suggested that, to achieve this, companies should focus on stock management strategies based on lean supply chain techniques.

Garcio et al (2007) studied effects of working capital management on the profitability sample of small and medium sized Spanish firms. They found that managers can create value by reducing

their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.

1.2 STATEMENT OF THE PROBLEM

Businesses failures have been attributed to the inability of financial managers to plan and control properly the current assets and current liabilities (Smith, 1973) profitability of a business is one of the key factors determining the success of it. Both excess and shortage of working capital affects the interest of a firm. By excess and shortage of working capital in a business firm, it is meant that its carrying higher assets than are warranted by the requirements of production. On the other hand, the impact of inadequate profits is mere severe. The losses due to insufficient working capital would be many. Production may be curtailed or stopped for want of necessary funds, as the firm will not be in a position to pay off the debts hence the credit worthiness of the firm is badly affected.

The efficiency of working capital management depends upon the amount of funds that is maintained by the Firm. How efficient a firm is managing its working capital can be determined by cash conversion cycle as it encompasses all the three important aspects of working capital management. Researchers have approached Working Capital Management in numerous ways; Ngaba (1990) studied the working capital practices used by schools in Kenya. (Nyakundi, 2003) studied the working capital management policies among public companies in Kenya while (Ochieng, 2006) studied the relationship between working capital and firms listed in the NSE and economic activity in Kenya. Kendii (2008) studied the relationship between working capital and profitability in firms listed in the NSE.

However, no study known to the researcher that has specifically addressed the pertinent issues; such as working capital, management practices and profitability of companies listed in NSE. This study sought to answer the question; is there a relationship between working capital management practices and profitability of a firm?

1.3 OBJECTIVE OF THE STUDY

To establish the relationship between working capital management practices and profitability of companies listed at the NSE.

1.4 SIGNIFICANCE OF THE STUDY

Companies are faced with challenges of maintaining optimum working capital levels by carrying out research will identify the optimal working capital levels in terms of creating wealth for the shareholders. The results of the research will provide a useful guide on which companies can rely when making working capital management decisions.

Management consultants can use the results of the research as a guide in advising their clients on efficient working capital management.

The research will be useful source materials for academicians and students on working capital management.

Shareholders of the companies under study will also benefit from the researcher findings whereby they get to know how well their company is performing in terms of working capital verses profitability.

CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter deals with various concepts in regard to the relationship between capital management and profitability of companies listed at NSE. In addition, the researcher will discuss various empirical studies done in the same filed, theories of capital management, profitability theories and ratios and summary conclusion of the literature review.

2.2 THEORETICAL REVIEW

2.2.1   THE PECKING ORDER THEORY

The pecking order theory (Myers and Majluf, 1984) and (Myers, 1984)) and its extensions (Lucas and McDonald, 1990)) are based on the idea of asymmetric information between managers and investors. Managers know more about the true value of the firm and the firm's riskiness than less informed outside investors. To avoid the underinvestment problem, managers will seek to finance the new project using a security that is not undervalued by the market, such as internal funds or riskless debt. Therefore, this affects the choice between internal and external financing. The pecking order theory is able to explain why firms tend to depend on internal sources of funds and prefer debt to equity if external financing is required. Thus, a firm's leverage is not driven by the trade-off theory, but it is simply the cumulative results of the firm's attempts to mitigate information asymmetry.

2.2.2   THE TRADE-OFF THEORY

The trade-off models have dominated the capital structure literature. The tax benefit bankruptcy cost trade-off models (DeAngelo and Masulis, 1980)) predict that firms will seek to maintain an optimal capital structure by balancing the benefits and the costs of debt. The benefits include the tax shield whereas the costs include expected financial distress costs. Under the agency theoretical models (Jensen and Meckling, 1976), (Myers, 1977) and (Jensen, 1986)) firms use the benefits of reducing potential free cash flow problems and other potential conflicts between managers and shareholders, to offset costs associated with underinvestment and asset substitution problems.

These theories predict that firms maintain an optimum capital structure where the marginal benefit of debt equals the marginal cost. The implication of these trade-off models is that firms have target average and they adjust their leverage toward the target over time.

2.2.3 MODERN PORTFOLIO THEORY

The term 'portfolio' is usually applied to combinations of securities, but the principles underlying security portfolio formation can be applied to combinations of any type of assets, including investment projects. Most firms diffuse their efforts across a range of products, market segments and customers in order to spread more thinly the risks of declining trade and profitability. If a firm can reduce its reliance on particular products or markets, then it can withstand more comfortably the impact of a major reverse in any single market. Diversification can generate some major strategic advantage, for example, the wider spread of activities, the greater the potential access to high performing market sectors. The modern portfolio theory was developed by Harry Markowitz, presenting it in 1952 in an article entitled 'Portfolio Selection'. Markowitz was the first to show the important benefits from diversification that arise from combining individual securities into portfolios and to demonstrate that the portfolio decision problem of an investor is equivalent to the maximization of his or her expected utility.

Modern Portfolio Theory explores how risk averse investors construct portfolio in order to optimize market risks against the expected return. The theory suggested that we could reduce the standard deviation of returns on asset portfolio by choosing assets, which do not move together. Allocating funds to a single security can be an extremely risky investment. The primary reason for investing in portfolios in diversification, that is, the allocation of funds to a variety of securities in order to reduce risk. As the number of securities held in the portfolio increases, the overall variability of the portfolio's return, measured by its standard deviation, diminishes very sharply for small portfolios, but falls more gradually for larger combinations. This decline in risk is achieved because the exposure to the risk of volatile securities can be offset by the inclusion of low-risk securities or even high-risk ones, so long as their returns are not closely correlated. The key point here is that not all the risk of individual securities is relevant for assessing the risk of a portfolio of risky shares.

The total risk of a portfolio is composed of two components: 1. Specific risk. The variability of a security's rate of return due to factors unique to the individual firm. 2. Systematic risk. The variability of a security's rate of return due to dependence on factors which influence the return on all securities. Risk of portfolio st. dev. of return) specific risk market risk number of securities in portfolio. Specific risk refers to the expected impact on sales and earnings of largely random events like industrial relations problems. equipment failure. R&D achievements. In a portfolio of shares. such factors tend to cancel out as the number of component securities increases. Pike and Neale. 1996.

2.2.4 WORKING CAPITAL MANAGEMENT

In intention to discover the relationship between efficient working capital management and firm's profitability (Shin & Soenen. 1998) used net-trade cycle (NTC) as a measure of working capital management. NTC is basically equal to the CCC whereby all three components are expressed as a percentage of sales. The reason by using NTC because it can be an easy device to estimate for additional financing needs with regard to working capital expressed as a function of the projected sales growth. This relationship is examined using correlation and regression analysis. by industry and working capital intensity. Using a Compustat sample of 58,985 firm years covering the period 1975-1994. in all cases. they found. a strong negative relation between the length of the firm's net-trade cycle and its profitability. In addition. shorter NTC are associated with higher risk-adjusted stock returns. In other word. (Shin & Soenen. 1998) suggest that one possible way the firm to create shareholder value is by reducing firm's NTC.

The study of (Shin & Soenen. 1998) is consistent with later study on the same objective that was done by (Deloof. 2003) by using sample of 1009 large Belgian non-financial firms for the period of 1992-1996. However. (Deloof. 2003) used trade credit policy and inventory policy are measured by number of days accounts receivable. accounts payable and inventories. and the cash conversion cycle as a comprehensive measure of working capital management. He found a significant negative relation between gross operating income and the number of days accounts receivable. inventories and accounts payable. Thus he suggests that managers can create value for their shareholders by reducing the number of days accounts receivable and inventories to a reasonable minimum. He also suggests that less profitable firms wait longer to pay their bills.

Working capital management entails short term decisions-generally, relating to the next one year period-which is "reversible". These decisions are therefore not taken on the same basis as Capital Investment Decisions (NPV or related, as above) rather they will be based on cash flows and/or profitability. One measure of cash flow is provided by the cash conversion cycle-the net number of days from the outlay of cash for raw material to receiving payment from the customer. As a management tool, this metric makes explicit the inter-relatedness of decisions relating to inventories, accounts receivable and payable, and cash. Because this number effectively corresponds to the time that the firm's cash is tied up in operations and unavailable for other activities, management generally aims at a low net count. In this context, the most useful measure of profitability is Return on capital (ROC). The result is shown as a percentage, determined by dividing relevant income for the firm's shareholders. Firm value is enhanced when, and if, the return on capital, which results from working capital management, exceeds the cost of capital, which results from capital investments decisions as above. ROC measures are therefore useful as a management tool, in that they link short-term policy with long-term decision making.

A company can be endowed with assets and profitability but short of liquidity if its assets cannot readily be converted into cash. Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivable and payable and cash. Working capital management ensures a company has sufficient cash flow in order to meet its short-term debt obligations and operating expenses. Implementing an effective working capital management system is an excellent way for many companies to improve their earnings. The two main aspects of working capital management are ratio analysis and management of individual components of working capital. Decisions relating to working capital and short term financing are referred to as working capital management. These involve managing the relationship between a firm's short term assets and its short term liabilities.

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

upcoming operational expenses. Guided by this criterion, management will use a combination of policies and techniques for the management of working capital. These policies aim at managing the current assets (generally cash and cash equivalents, inventories and debtors) and the short-term financing, such that cash flows and returns are acceptable. (Deloof, 2003)

2.2.5 WORKING CAPITAL AND PROFITABILITY

The idea that working capital management affects the firm's profitability and risk is generally accepted and has recently received considerable attentions. First, Smith (1980) suggests that working capital management is important because of its effects on a firm's profitability and risk, and consequently its value. Specifically, a more aggressive working capital policy (Low investment in working capital) is associated with a higher return and risk, while a conservative working capital policy (high investment in working capital) supposes a lower return and risk. These effects on profitability and risk, therefore, suggests that firms might have an optimal working capital level that balances the costs and benefits of holding working capital and maximizes their profitability.

Deloof (2003) suggests that firms might have a optimal level of working capital that maximizes their value. The literature has demonstrated that there exist optimal levels of its individual components, such as accounts receivable (Emery 1984), inventories and accounts payable. However, previous research on working capital management and firm performance (Jose, Lancaster and Stevens 1996; Shin and Soenen 1998; Wang 2002; Deloof 2003; and Garcia-Teruel and Martinez-Solano 2007; among others), analyzes a linear relationship between investment in working capital and firm's profitability. The findings indicate that the lower the investment in working capital the more profitability, ignoring, for instance, the higher risk of loss of sales and interruptions in the production process, related with low levels of working capital.

2.3 EMPIRICAL REVIEW

According to Garcia-Teruel and Martinez-Solano (2007), profit is the surplus left over from revenue after covering expenses. Profitability is the measure of profit generated on an ongoing basis. Profit is generally measured in dollar terms; profitability is measured as a percentage of sales. You need to focus on both. For many small businesses profit equals the owner's pay

check. If your profitability from operations doesn't generate enough cash flow, you don't get paid. The first step is to figure out how much you need to pay yourself-to cover your basic needs and desired lifestyle, savings and retirement, and to pay your taxes. Then figure out how much money your business needs to bring in to cover its expenses and pay you this amount.

Profit is ROI-return on investment. You (and perhaps others) put capital into your business and you expect to get it back someday with a suitable rate of return. For an established yet vulnerable small business, a suitable ROI can be from 20% to 30% per annum. Profit is ROE—return on effort. Many people start their businesses largely with sweat equity, putting in thousands of hours of their own time—unpaid-to get the business up and running. Can you ever recoup the value of your time? A business run by the owner should look at profit as the financial return per unit of your effort. For example, suppose you work 2,000 hours in a year, and your company's profit is Kshs 250,000. For that year, you could say that you have a return of Kshs 125/= for each hour you put in.

If you want to operate with greater ease make sure you don't increase profit by dint of harder work and longer hours. More on this in chapter 11 of my book "How to Grow Your Business without Driving Yourself Crazy" in the section on "Leverage Your Effort". Profit is a tuning fork. It tells you how well tuned your business instrument is. When you are doing things right-working productively and cost-effectively, selling the right things to the right people, serving your customers well and treating your own people well-profit is the measure that amply demonstrates that.

The opposite is also true. When your business is not tuned properly, it sounds the discordant notes of low productivity, unhappy employees dwindling customer base and mounting losses. Profit is acknowledgement that the business is tuned properly. Profit is flow. Profit provides the surplus that helps you weather the lean times. Profit allows you to be generous. Profit is energy. Many small business owners say they are more interested in achieving their vision than in making a big profit. But without adequate profitability, you get worn down, burnt out and discouraged.

An unprofitable business fails unless outside money is continually pumped in. You cannot make the contribution you want without bringing in a good profit. As your attitude toward profit shifts from: what's left over that you use to pay yourself, to a resource you use for critical business needs, you can plan your operations so that they regularly generate profit beyond what you pay yourself. You can create a "profit budget" to calculate how much you need to cover such items as: Fund for expansions or upgrades How much do you need to set aside each year for anticipated upgrades and expansion? Cushion to cover downturns. How much should you set aside each month to provide an insurance policy against short-term financial reverses? What proportion of sales revenue should you allocate to incentives and bonuses in order to motivate top performance?

What proportion of salaries and wages should you set aside to fund retirement plans for you and your employees? How much must you set aside each month to pay taxes on the profit you anticipate? How much cash flow must be available after taxes to pay down your debt-including repayment of money you have put into the company? Calculate all these amounts that pertain to you and add them up. This is the amount of profit from operations you need each year. If you divide this sum by your projected revenue, you get a percentage that shows what proportion of each dollar of sales revenue should be available for these uses.

The profitability in this case is presented and measured using ROE. In other words, the amount of NI returned as a percentage of TSE. The ROE is defined as the company's annual net income after tax divided by shareholder's equity. NI is the amount of earnings after paying all expenses and taxes. Equity represents the capital invested in the company plus the retained earnings. Essentially, ROE indicates the amount of earnings generated from equity I choose it as profitability indicator because ROE comprises aspects of performance, such as profitability and financial leverage (Foong, 2008).

The measurement of bank performance has been developed over time. At the beginning, many banks used a purely accounting-driven approach and focused on the measurement of NI, for example, the calculation of ROA. However, this approach does not consider the risks related to the referred assets, for instance, the underling risks of the transactions, and also with the growth

of off-balance sheet activities. Thus the riskiness of underlying assets becomes more and more important. Gradually, the banks notice that equity has become the scarce resource. Thereby, banks turn to focus on the ROE to measure the net profit to the book equity in order to find out the most profitable business and to do the investment.

ROE is commonly used to measure the profitability of banks. The efficiency of the banks can be evaluated by applying ROE, since it shows that banks reinvest its earnings to generate future profit. The growth of ROE may also depend on the capitalization through the risk-weighted capital adequacy profit margin. If a bank is highly capitalized through the risk-weighted capital adequacy ratio (RWCAR) or Tier I capital adequacy ratio (CAR), the expansion of ROE will be retarded. However, the increase of the operating margin can smoothly enhance the ROE.

ROE also hinges on the capital management activities. If the banks use capital more efficiently, they will have a better financial leverage and consequently a higher ROE. Because a higher financial leverage multiplier indicates that banks can leverage on a smaller base of stakeholders fund and produce higher interests bearing assets leading to the optimization of the earnings. On the contrary, a rise in ROE can also reflect increased risks because high risk might bring more profits. This means ROE does not only go up by increasing returns or profit but also grows by taking more debt which brings more risk. Thus, positive ROE does not only represent the financial strength. Risk management becomes more and more significant in order to ensure sustainable profits in banks.

ROE as an important indicator to measure the profitability of the banks has been discussed extensively in the prior studies. That the efficiency of banks can be measured by using the ROE which illustrates to what extent banks use reinvested income to generate future profits. According to Risk bank's Financial Report (2002), the measurement of connecting profit to shareholder's equity is normally used to define the profitability in the banks.

Profitability ratios are often used in a high esteem as the indicators of credit analysis in banks, since profitability is associated with the results of management of performance. ROE and ROA are the most commonly used ratios, and the quality level of ROE is between 15% and 30%, for ROA is at least 1%. The study of Garcia-Teruel and Martinez-Solano (2007) presented the

purpose of ROE as the measurement of the amount of profit generated by the equity in the firm. It is also mentioned that the ROE is an indicator of the efficiency to generate profit from equity. This capability is connected to how well the assets are utilized to produce the profits as well. The effectiveness of assets utilization is significantly tied to the amount of assets that the company generates for each shilling of equity.

One of the important uses for this percentage is to set prices that assure the desired level of profitability. Your accountant may gnash his or her teeth over the above paragraph, correctly pointing out that many of these items are business expenses, not profit. I agree. However, for small business owners who are trying to make a transition from a cover the costs mentality to a generate surplus mentality, developing this profit budget is invaluable. These are the very items that they otherwise fail to account for in their planning; their projections and their pricing decisions. The amount of net income returned as a percentage of shareholders' equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Note that it is not the responsibility of the firm to decide whether to please particular groups of shareholders who prefer longer or shorter term results. Once the firm has selected the projects to maximize its net present value, it is up to the individual shareholders to sue the capital markets to borrow or lend in order to move the exact timing of their own cash flows forward or backward. This idea is crucial in the principal-agent relationship that exists between shareholders and corporate managers. Even though each may have their own individual preferences, the common goal is that of maximizing the present value of the corporation.

The internal rate of return (IRR) is defined as the discount rate that gives a net present value (NPV) of zero. It is a commonly used measure of investment efficiency. The IRR method will result in the same decision as the NPV method for (non-mutually exclusive) projects in an unconstrained environment, in the usual cases where a negative cash flow occurs at the start of the project, followed by all positive cash flows. In most realistic cases, all independent projects that have an IRR higher than the hurdle rate should be accepted. Nevertheless, for mutually exclusive projects, the decision rule of taking the project with the highest IRR — which is often used — may select a project with a lower NPV.

In some cases, several zero NPV discount rates may exist, so there is no unique IRR. The IRR exists and is unique if one or more years of net investment (negative cash flow) are followed by years of net revenues. But if the signs of the cash flows change more than once, there may be several IRRs. The IRR equation generally cannot be solved analytically but only via iterations. One shortcoming of the IRR method is that it is commonly misunderstood to convey the actual annual profitability of an investment. However, this is not the case because intermediate cash flows are almost never reinvested at the project's IRR; and, therefore, the actual rate of return is almost certainly going to be lower. Accordingly, a measure called Modified internal rate of Return (MIRR) is often used.

2.4 CONCLUSION

Many researchers have studied working capital from different views and in different environments. The following ones were very interesting and useful for our research: (Eljelly, 2004) elucidated that efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of inability to meet due short-term obligations and avoids excessive investment in these assets. The relation between profitability and liquidity was examined, as measured by the current ration and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that affects profitability. The size variable was found to have significant effect on profitability at the industry level. The results were stable and had important implications for liquidity management in various Saudi companies.

First, it was clear that there was a negative relationship between profitability and liquidity indicators such as current ration and cash gap in the Saudi sample examined. Second, the study also revealed that there was great variation among industries with respect to the significant measure of liquidity.

Deloof.(2003) discussed that most firms had a large amount of cash invested in working capital. It can therefore be expected that the way in which working capital is managed will have a significant impact on profitability of those firms. Using correlation and regression tests he found a significant negative relationship between gross operating income and the number of days account receivable, inventories and accounts payable of Belgian firms. On basis of these results he suggested that managers could create value for their shareholders by reducing the number of day's accounts receivable and inventories to a reasonable minimum. The negative relationship between accounts payable and profitability is consistent with the view that less profitable firms wait longer to pay their bills.

Ghosh and Maji.(2003) in this paper made an attempt to examine the efficiency of working capital management of the Indian cement companies during 1992-1993 to 2001-2002. For measuring the efficiency of working capital management, performance, utilization, and overall efficiency indices were calculated instead of using some common working capital management ratios. Setting industry norms as target-efficiency levels of the individual firms, this paper also tested the speed of achieving that target level of efficiency by an individual firm during the period of study. Findings of the study indicated that the Indian Cement Industry as a whole did not perform remarkably well during this period.

Shin and Soenen (1998) highlighted that efficient Working Capital Management (WCM) was very important for creating value for the shareholders. The way working capital was managed had a significant impact on both profitability and liquidity. The relationship between the length of Net Trading Cycle, corporate profitability and risk adjusted stock return was examined using correlation and regression analysis, by industry and capital intensity. They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability. In addition, shorter net trade cycles were associated with higher risk adjusted stock returns.

Smith and Begemann (1997) emphasized that those who promoted working capital theory shared that profitability and liquidity comprised the salient goals of working capital management. The problem arose because the maximization of the firm's returns could seriously threaten its liquidity, and the pursuit of liquidity had a tendency to dilute returns. This article evaluated the association between traditional and alternative working capital measures and return on

investments (ROI), specifically in industrial firms listed on the Johannesburg Stock Exchange (JSE). The problem under investigation was to establish whether the more recently developed alternative working capital concepts showed improved association with return on investment to that of traditional working capital ratios or not.

Results indicated that there were two significant differences amongst the years with respect to the independent variables. The results of their stepwise regression corroborated that total current liabilities divided by funds flow accounted for most of the variability in Return on Investment (ROI). The statistical test result showed that a traditional working capital leverage ratio, current liabilities divided by funds flow, displayed the greatest associations with return on investment. Well known liquidity concepts such as the current and quick ratios registered insignificant associations whilst only one of the newer working capital concepts, the comprehensive liquidity index, indicated significant associations with return on investment.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter covers in details the different methods that the researcher used to carry out the research and acquire data. The research design, target population, sample design, data collection procedure and data analysis method.

3.2 RESEARCH DESIGN

According to kerlinger (1986) research design is the plan and structure of investigation so conceived so as to obtain answers to research questions. The plan is the overall program of the research and includes an outline of what the investigator was from writing of the hypothesis and their operational implications for the final analysis of data.

The researcher used descriptive research design. This was deemed appropriate because the study involved a depth study of the relationship between working capital management and profitability in companies listed in NSE which helped the researcher in describing the state of current affairs and assesses the characteristic of the situation. It also sought to obtain information that describes existing phenomena by asking individual about their perception, attitude, behaviour or values.

3.3 POPULATION AND SAMPLE

The population comprised of 43 companies listed in the Nairobi Stock Exchange as at 31st Dec 2009 (Appendix I).
A census study was carried out hence there was no sampling.

3.4 DATA COLLECTION

Data collection was by use of questionnaires and secondary data. The questionnaire was made up of both structured and unstructured questions to avoid being too rigid and to quantify the data especially where structured items were used. This method helped the researcher to collect accountable information which would not be possible while using interview and observation method due to the personnel's suspicious attitude.

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The secondary data was acquired from Nairobi Stock exchange (NSE) journals. Data of firms listed on the NSE for the most recent 10 years formed the basis of our calculation. The period covered by the study extended to 5 years, starting from 2005-2009. The reason for restricting to this period is its latest data for investigation was available to for this period. The sample is bases on financial statement of the listed on NSE including firms from different sectors of our economy because of the specific nature of activity, firms in financial sector, banking and finance, insurance, leasing, business services, renting and other services are excluded from the sample. Finally, the firms that were selected for the study are include as (Appendix I)

3.5 DATA ANALYSIS

Descriptive analysis is the first step in this analysis; it will help us describe relevant aspects of phenomena of cash conversion cycle and provide detailed information about each relevant variable. Research has already been conducted in our area of study and a lot of information is already on hand, and SPSS V.17 software will be used for analysis of often different variables in this study.

3.5. 1 VARIABLES

This study undertakes the issue of indentifying key variables that influence working capital management of Kenyan firms. Choice of the variables is influenced by the previous studies on working capital management. All the variables stated below will be used to test the hypotheses of this study. They include dependent, independent and some control variables. Net operating profitability (NOP) which is a measure of profitability of the firm is used as dependant variables. It is defined as operating income plus depreciation, and divided by total assets minus financial assets. Average collection period (ACP) used as proxy for the collection policy is an independent variable. It is calculated by dividing account receivable by sales and multiplying the result by 365 (number of days in a year). Inventory turnover in days(ITID) used as proxy for the inventory policy is also an independent variable. It is calculated by dividing inventory by cost of goods sold and multiplying with 365 days.

Average payment period (APP) used as proxy for the payment policy is also an independent variable. It is calculated by dividing accounts payable by purchases and multiplying the result by 365. The cash conversion cycle (CCC) used as a comprehensive measure of working capital

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management is another independent variable. and is measure by adding average collection period with inventory turnover in days and deducting Average Payment period.

Current ratio (CR)   which is a traditional measure of liquidity is calculated by dividing current assets by current liabilities.

In addition. size (natural logarithm of sales(LOS)). debt ratio (DR) used as proxy for leverage and is calculated by dividing total debt by total assets. and ratio of financial assets to total assets (FATA) are included as controlled variables. Fixed financial assets are the shares in other firms. intended to contribute to the activities of the firm holding them by establishing lasting and specific relationship and loans that where granted for the same purpose For some firms such assets are a significant part of their assets. All the above variables have relationship ultimately affect working capital management. It is expected that there is a negative relationship between Net operating profitability on the one and the measures of working capital management (number of days accounts receivable. inventory and accounts payable and cash conversion cycle) on the other hand. This is consistent with the few that the time lag between expenditure for the purchases of raw materials and the collection of sales of finished goods can be too long. and that decreasing this time lag increases profitability.

3.5.2 REGRESSION MODEL

Our study uses panel data regression analysis of cross-sectional and time series data. We use the pooled regression type of panel data analysis. The pooled regression. also called the constant coefficients model is one where both intercepts and slopes are constant. where the cross section firm data and time series data are pooled together in a single column assuming that there is no significant cross section of temporal effects.

The study followed Deloof (2003) in computing the NOP

The general form of our model is: $NOP_{it} = \beta 0 + \sum \beta_i X_{it} + \varepsilon$

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NOP_{it} : Net operating profitability of firm i at time t; i= 1.2,.............................10firms

$\beta0$: The intercept of equation

β_i : Coefficient of X it variables

X_{it}: The different independent variables for working capital management of firm i at

time t

: Time = 1.2,..............5years

ε: The error term

Specifically, when we convert the above general least squares model into our specified variables

it becomes:

$$NOP_{it} = \beta0 + \beta1(ACP_{it}) + 2\beta(ITID_{it}) + 3\beta(APP_{it}) + 4\beta(CCC_{it}) + 5\beta(CR_{it}) + 6\beta(DR_{it}) + 7\beta$$

$$(LOS_{it}) + 8\beta(FATA_{it}).........+\varepsilon$$

Where:

NOP: Net operating profitability

ACP: Average Collection period

ITID: Inventory Turnover in Days`

APP: Average Payment Period

CCC: Cash conversion cycle

CR: Current Ratio

DR: Debt Ratio

LOS: Natural   Logarithm of Sale

ε: The error term.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents results and findings obtained from the NSE records. This is in respect to the research theme and presents data in form of pie charts and tables. The researcher took a sample of ten firms where he concentrated the analysis for the period of five years that is from 2005-2009.

AGE BRACKET OF RESPONDENTS

The purpose of the study was to establish the relationship between working capital management practices and profitability of companies listed at the Nairobi stock exchange. The issue of respondent's age was of paramount importance since the researcher sought to establish whether respondents' age had a contribution to working capital management practices and profitability of companies.

FIGURE 4.1 AGE BRACKET OF RESPONDENTS
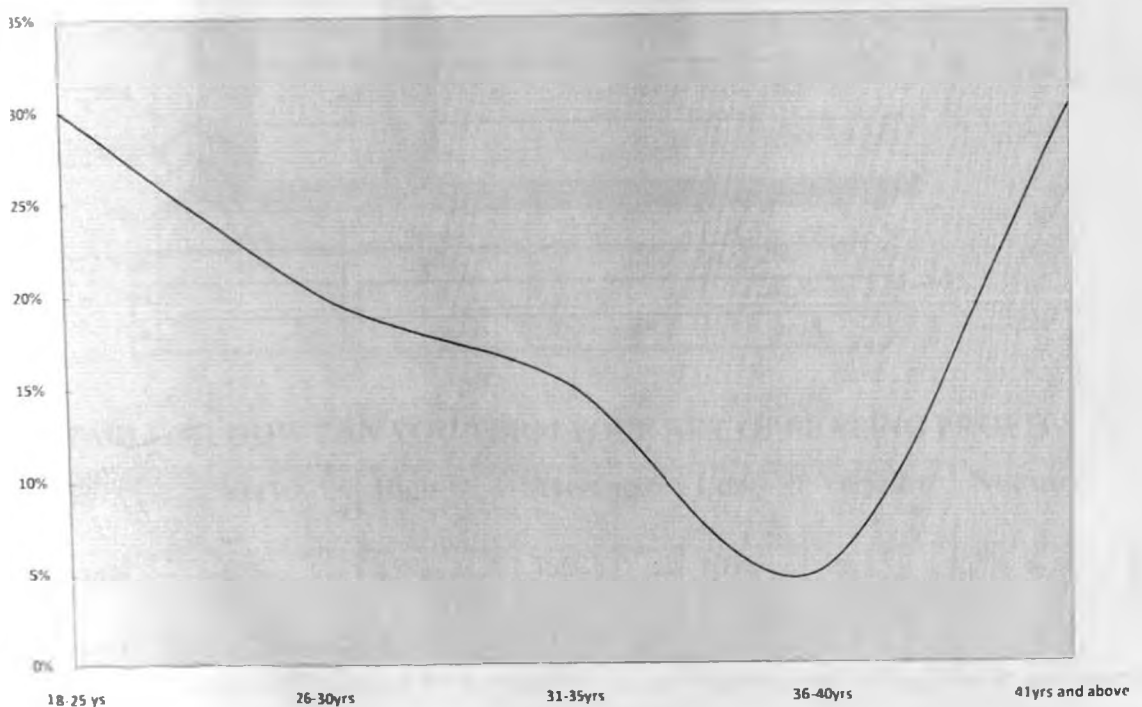
Analysis from the above figure indicates that 30% of the respondents from the organizations are between the age of 18 to 25 years, 20% age of 26 to 30 years, 15% age of 31 to 35 years, 5% age of 36 to 40 years and 30% between the age of 41 and above years.

GENDER OF RESPONDENTS

The researcher found it supreme to establish the sex of the respondents. This was guided by the simple logic that many psychologists argue that males and females perceive and interpret things differently even though they may be exposed to the same kind of environment. Of important to the researcher would have been to find out the causes of biases if any and probably establish if they were related to working capital management practices and profitability of companies.

FIGURE 4.2 GENDER OF RESPONDENTS

	Male	Female		
■	65%	35%		
□				
▨				
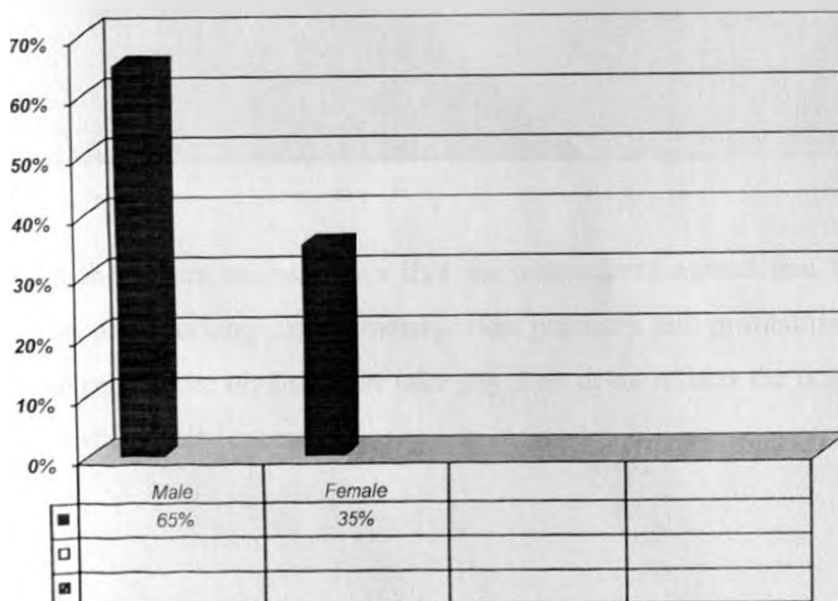
TABLE 4.1 HOW CAN YOU TERM YOUR NET OPERATING PROFIT

Category	Very	High	Average	Low	Very low	Not sure
Response	65%	45%	35%	10%	5%	2%

From the study analysis it shows that majority of the respondents valued their net operating profit to be very high while a very few said that their net operating profit is very low with 5% representation.

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FIGURE 4.3: RELATIONSHIP BETWEEN LEVERAGE PERIOD AND WORKING CAPITAL MANAGEMENT PRACTICES AND PROFITABILITY OF COMPANIES
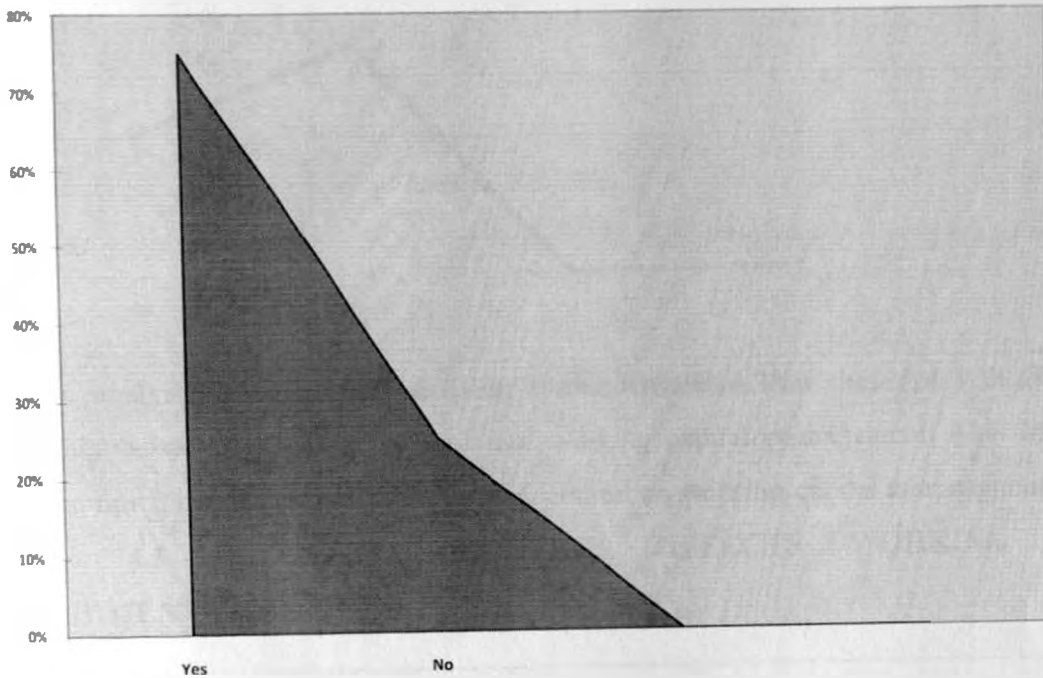
Analysis from the figure above shows that the respondents agreed that there is a relationship leverage period and working capital management practices and profitability of companies. This means that the period the organization take pay their debts affects the organization profitability and efficiency of the daily operations.

FIGURE 4.4: RELATIONSHIP BETWEEN INVENTORY CONTROL AND WORKING CAPITAL MANAGEMENT PRACTICES AND PROFITABILITY OF COMPANIES
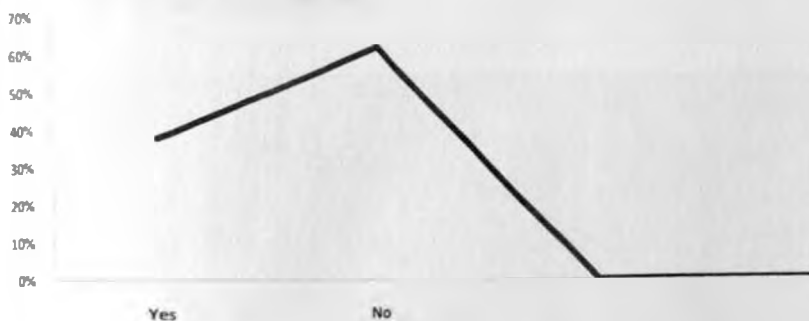
From the analysis it was noted that the respondents said that they don't think there is a relationship between inventory control and working capital management. This indicates that there is no much impact created by inventory control on working capital management.

FIGURE 4.5 INVENTORY CONTROL AFFECTS WORKING CAPITAL MANAGEMENT PRACTICES.

	Agree	Disagree	Not sure
F1	3	1	1
F2	2	1	1
F3	5	3	1
F4	2	1	1
F5	2	3	0
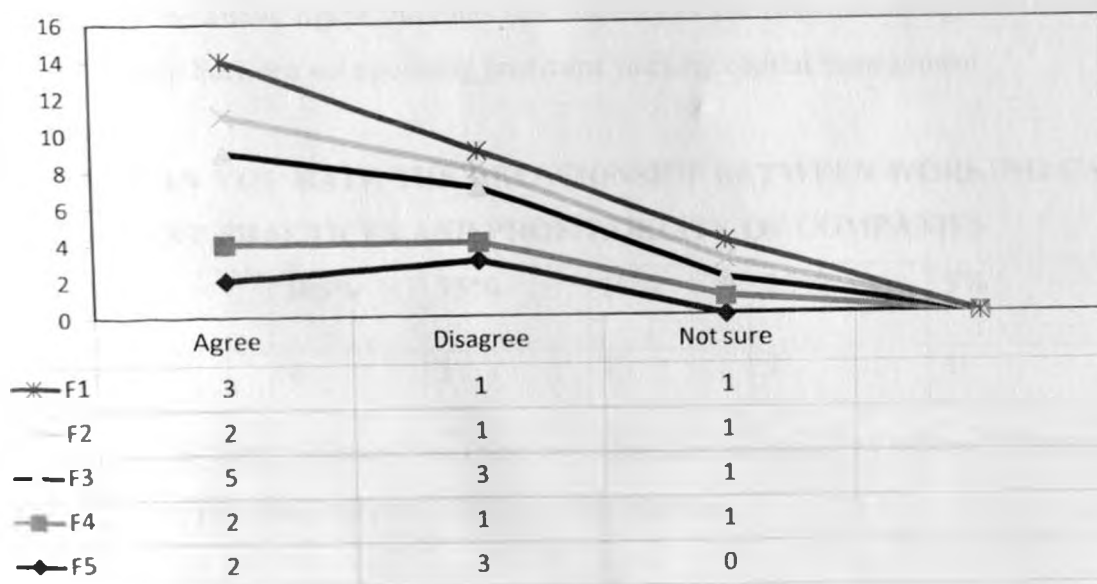
Analysis from the respondents indicates that there is a slight effect created by inventory control on working capital management. This was indicated by the majority of the respondents agreeing to the question posed to them.

FIGURE 4.6: RELATIONSHIP BETWEEN NET OPERATING PROFITABILITY (NOP) AND WORKING CAPITAL MANAGEMENT AS A MEASURE OF WORKING CAPITAL MANAGEMENT

	Agree	Disagree	Not sure
——	50%	40%	10%
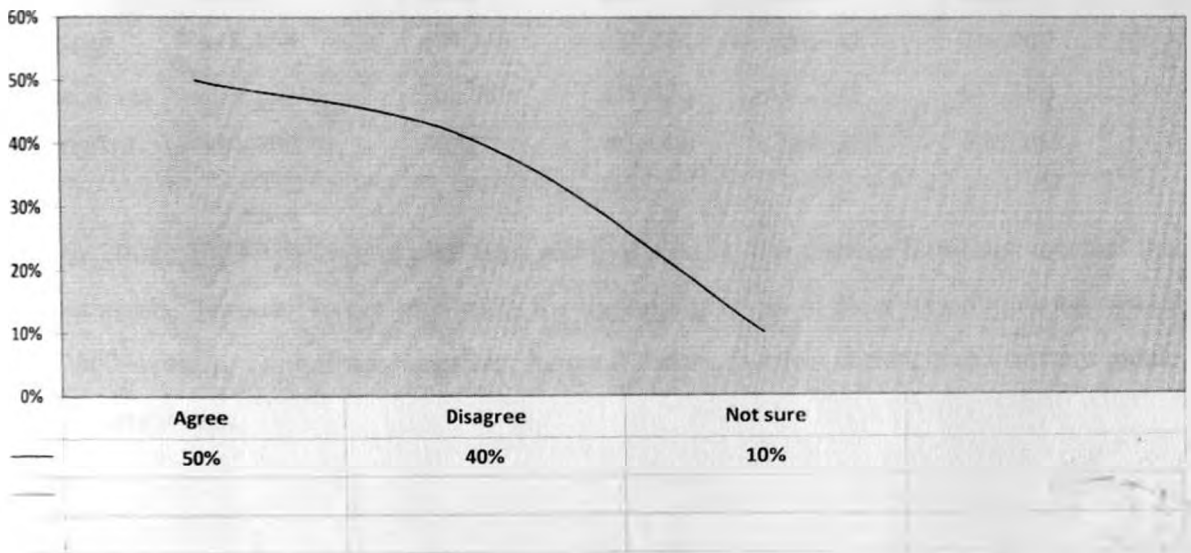
Analysis from the above figure indicates that majority of the respondents agreed that there is a good relationship between net operating profit and working capital management.

TABLE 4.2 CAN YOU RATE THE RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT PRACTICES AND PROFITABILITY OF COMPANIES

Rate	100%	75%	50%	25%	5%
Category	4	3	1	1	1

Analysis from the table indicates that there is a significant relationship between working capital management and practices and profitability of the company.

4.2 PRESENTATION OF FINDINGS

Company 1

Assets	2009	2008	2007	2006	2005
Current assets	618,438	439,316	337,274	303,741	315,909
Current liabilities	304,131	408,889	429,922	592,149	613,252
Working capital	314,307	30,427	-92,648	-288,408	-297,343

In the year 2008- 2009 working capital was positive, that is, the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations. And in 2005 to 2007 working capital was negative; hence it means that the current liabilities are greater than the current assets.

Company 2

Assets	2009	2008	2007	2006	2005
Current assets	502,524	781,353	472,678	379,444	412,621
Current liabilities	224,412	554,440	297,394	245,958	243,005
Working capital	278,112	226,913	175,284	133,486	169,607

Working capital was positive, that is, current liabilities are less than the current assets. This is very important for the organization as it implies ability to meet its obligations.

Company3

Assets	2009	2008	2007	2006	2005
Current assets	1,041,011	981,353	526,609	518,675	457,732
Current liabilities	407,316	361,223	259,979	295,812	230,608
Working capital	633,695	620,130	266,630	222,863	227,124

Working capital was positive, that is, the current liabilities are less than the current assets. This implies the organization is able to meet its short term obligations.

Company 4

Assets	2009	2008	2007	2006	2005
Current assets	2,191,107	1,829,332	1,271,836	731,242	579,398
Current liabilities	1,681,144	1,413,637	965,848	538,014	438,090
Working capital	509,963	415,695	305,988	193,228	141,308

For the years under review, current liabilities are less than the current assets hence positive working capital. This means that the organization is able to meet its obligations as they fall due.

Company 5

Assets	2009	2008	2007	2006	2005
Current assets	458,000	10,113,112	7,625,532	6,056,751	5,397,943
Current liabilities	338,505	6,947,732	5,006,369	3,861,940	3,645,725
Working capital	119,495	3,165,380	2,619,163	2,194,811	1,752,218

Working capital was positive during the duration under research, that is, current liabilities are less than the current assets. This is very important for the company to meet its obligations.

Company 6

Assets	2009	2008	2007	2006	2005
Current assets	19,709,000	21,433,000	20,303,000	17,853,000	11,562,000
Current liabilities	21,722,000	14,113,000	14,563,000	15,819,000	13,992,000
Working capital	2,013,000	7,320,000	5,740,000	2,034,000	-2,430,000

Working capital was positive meaning that the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations. 2005 Working capital was negative; hence it means that the current liabilities are greater than the current assets.

Company 7

Assets	2009	2008	2007	2006	2005
Current assets	555.572	671,689	737.368	747,807	613,408
Current liabilities	626,752	719,142	600,905	608,605	521,131
Working capital	- 71,180	-101,453	136,463	139,202	101,277

2009 and 2008 working capital was negative; hence it means that the current liabilities are greater than the current assets. Working capital was positive meaning that the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations.

Company 8

Assets	2009	2008	2007	2006	2005
Current assets	3,765,600	4,027,800	3,614,400	3,204,800	2,375,700
Current liabilities	1,769,400	2,172,900	1,895,400	1,436,400	1,158,900
Working capital	1,996,200	1,899,900	1,216,800	1,768,400	1,216,800

Working capital was positive meaning that the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations.

Company 9

Assets	2009	2008	2007	2006	2005
Current assets	1,081,798	1,154,155	930,911	786,968	559,897
Current liabilities	850,966	845,209	702,317	549,526	532,616
Working capital	230,832	308,945	308,951	237,442	27,281

Working capital was positive meaning that the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations

Company 10

Assets	2009	2008	2007	2006	2005
Current assets	20,341,692	20,754,879	19,038,564	15,941,674	13,552,690
Current liabilities	23,339,345	18,517,743	17,846,004	12,124,956	10,583,627
Working capital	-2,997,653	2,237,136	1,192,560	3,789,718	2,969,063

2009 working capital was negative; hence it means that the current liabilities are greater than the current assets whereas 2005 to 2008 working capital was positive meaning that the current liabilities are less than the current assets. Thus it is very important for the organization to meet its obligations.

Distribution of working capital for the ten companies
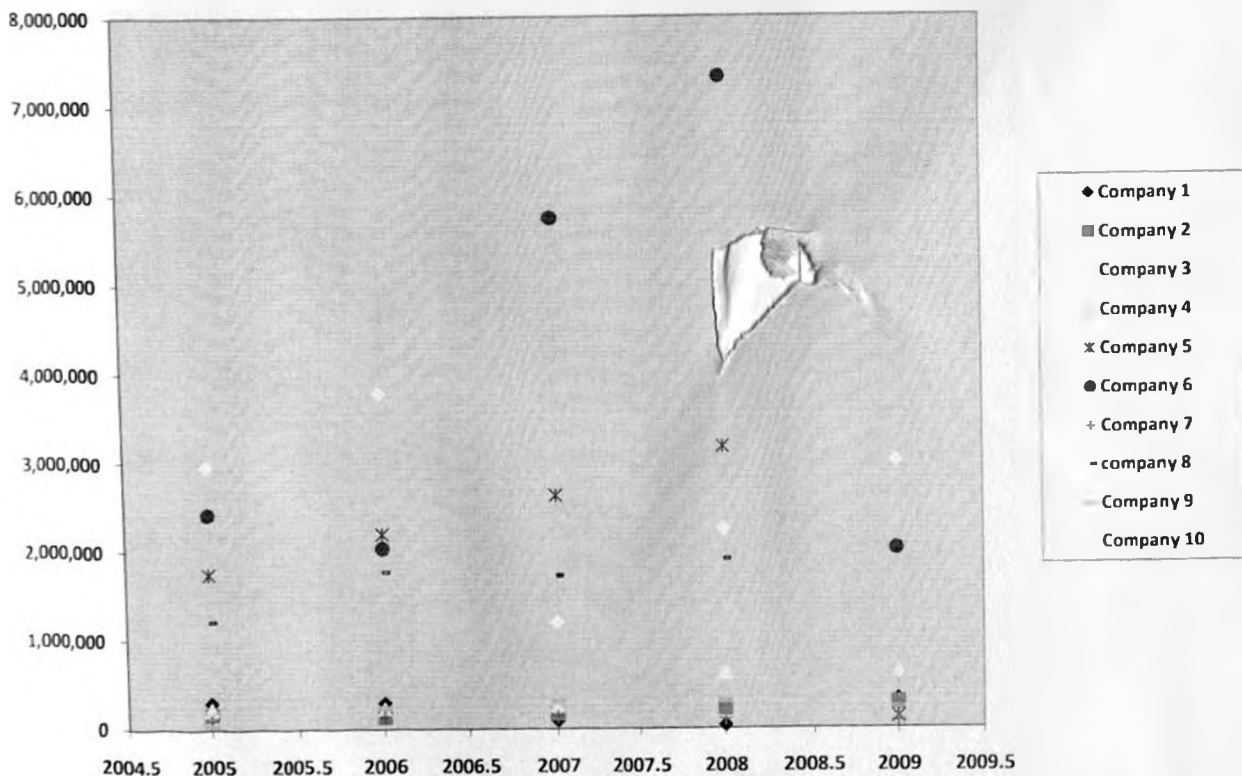
Model Statistics

	Number of Predictors	Model Fit statistics
		Stationary R-squared
Model		
...n 2009-Model_1	0	-.105
...n 2008-2005 -Model_2	0	.407
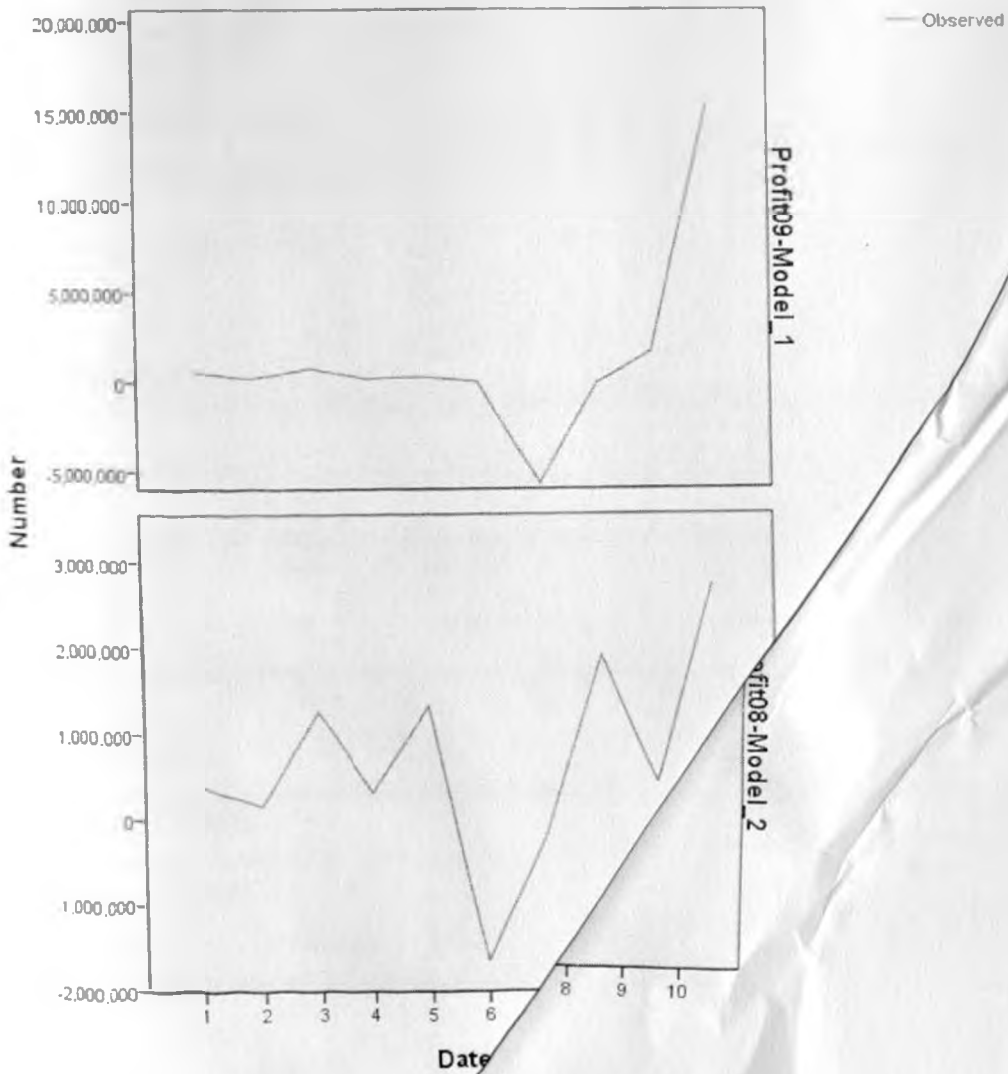
REGRESSION ANALYSIS

$$NOP_{it} = \beta_o + \sum \beta_i \times it + \varepsilon$$

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	WrkCpt	.	Enter
2	Working Capital	.	Enter

a. All requested variables entered.

b. Dependent Variable: Profit

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.086[a]	.007	-.117	5,599,794.54621
2	.859[b]	.738	.664	3,073,711.49492

Model Summary

	Change Statistics				
Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.007	.059	1	8	.814
2	.731	19.553	1	7	.003

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.858E12	1	1.858E12	.059	.814[a]
	Residual	2.509E14	8	3.136E13		
	Total	2.527E14	9			
2	Regression	1.866E14	2	9.329E13	9.875	.009[b]
	Residual	6.613E13	7	9.448E12		
	Total	2.527E14	9			

Predictors: (Constant). WrkCpt. Working Capital

Dependent Variable: Profit

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1421096.742	1825214.718		.779	.459
	WrkCpt	.023	.096	.086	.243	.814
2	(Constant)	-1686.874	1052257.227		-.002	.999
	WrkCpt08	-.010	.053	-.035	-.180	.862
	Working Capital	-.773	.175	-.863	-4.422	.003

a. Dependent Variable: Profit

ear 2005 to 2007

ormally, we are not very interested in testing hypotheses about the constant, so we go directly the independent variable 'Working Capital' in the Model 1 part of the table. The Sig. value is eported to be 0.459. This indicates that it is more than 0.001 (but not exactly 0), which, in turn, means that it is more than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is no association. A common way to state this is to say that the association between the dependent and the independent variables is not statistically significant.

Year 2008 to 2009

Model 2 part of the table. The Sig. value is reported to be 0.003. This indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is more than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

Excluded Variables

					Collinearity Statistics
Model	Beta In	T	Sig.	Partial Correlation	Tolerance
1 Working Capital 2009	-.863[a]	-4.422	.003	-.858	.980

a. Predictors in the Model: (Constant), WrkCpt08-05
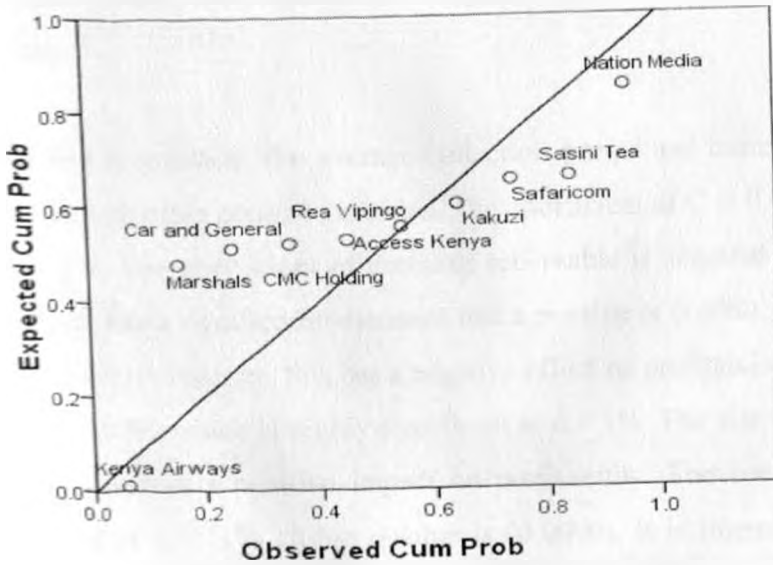
b. Dependent Variable: Profit 2009

	Minimum	Maximum	Mean	Std. Deviation	N
edicted Value	-1,547,980.3750	14,092,669.0000	1,313,432.9000	4,553,211.35500	10
esidual	-7,219,078.00000	3,165,380.50000	6.98492E-11	2,710,758.73917	10
Std. Predicted Value	-.628	2.807	.000	1.000	10
Std. Residual	-2.349	1.030	.000	.882	10

a. Dependent Variable: Profit 2009

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Profit 2009

matically, the line representing a simple linear regression is expressed through a basic
on: $Y = a_0 + a_1 X$. Here X is working capital per company, the "independent variable." Y is
rofit, the "dependent variable," since — we believe — those Profits depend on Working
al. Additionally, a_0 is the y-intercept (the value of Y when X is zero) and a_1 is the slope of
ne, characterizing the relationship between the two variables.

rn, the typical distance between the line and all the points (sometimes called the "standard
r") indicates whether the regression analysis has captured a relationship that is strong or
k. The closer a line is to the data points, overall, the stronger the relationship.

gression Model: General Least Squares – Cross Section Weights

have also used the general least squares model with cross section weights. When we use the
oled data and cross sections are greater than the time series, there may be a problem of
anging variation after short periods of time. To counter this problem we are using the general
ast squares with cross section weights. In this regression, the common intercept is calculated
or all variables and assigned a weight. A weighted least square is obtained by first dividing the
eight series by its mean, then multiplying all of the data for each observation by the scaled
weight series. The scaling of the weight series is a normalization that has no effect on the
parameter results, but makes the weighted residuals more comparable to the un-weighted
residuals.

In the first Regression, the average collection period and current ratio are used as independent
variables with other control variables. The coefficient of C is 0.459 and has a significant p-value
at á. = 1%. The coefficient of accounts receivable is negative and it is highly significant. The
coefficient has a significant t-statistics and a p-value of (-.858), which implies when the working
capital position is better, this has a negative effect on profitability of a firm. The variable has a p-
value of 0.0000 which is highly significant at á. = 1%. The size of the firm (measured in terms of
log of sales) has a positive impact on profitability. The coefficient is (0.006) and is highly
significant at á. = 1% as the p-value is (0.0000). It is interpreted that when size of the firm
increases, it will lead to increasing the profit of the firm.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

INTRODUCTION

chapter will consist of summary of major findings. conclusion and recommendation of the

DISCUSSION AND CONCLUSION

working capital is often used as a barometer to measure a company's over health and liquidity. If a company has negative working capital, it means that the current liabilities are greater than the current assets. This may mean that the company may have trouble paying off its short-term obligations. This can impact the overall efficiency of the company because the company may not be able to spend as aggressively as its competitors. Investors often watch working capital closely to check on the financial health of a company.

The number one reason most people look at a balance sheet is to find out a company's working capital or current position. It reveals more about the financial condition of a business than almost any other calculation. It tells you what would be left if a company raised all of its short term resources, and used them to pay off its short term liabilities. The more working capital, the less financial strain a company experiences. By studying a company's position, you can clearly see if it has the resources necessary to expand internally or if it will have to turn to a bank and take on debt. The degree to which an investor or business is utilizing borrowed money. Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt; they may also be unable to find new lenders in the future. Leverage is not always bad, however: it can increase the shareholders' return on investment and often there are tax advantages associated with borrowing.

Most of the Kenyan firms have large amounts of cash invested in working capital. It can therefore be expected that the way in which working capital is managed will have a significant impact on profitability of those firms. We have found a significant negative relationship between net operating profitability and the average collection period for a sample of Kenyan firms listed on Nairobi Stock Exchange. These results suggest that managers can create value for their shareholders by reducing the number of days accounts receivable and inventories to a reasonable minimum. The result can

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be interpreted as the less time it takes for customers to pay their bills, the more cash is able to replenish inventory hence the higher the sales realized leading to higher profitability of firm.

s study adds to existing literature such as (Deloof 2003), (Eljelly 2004) and (Shin and Soenan, 8) who found a strong negative relationship between the measures of working capital agement including the average collection period, inventory turnover in days, average payment od and cash conversion cycle with corporate profitability. On basis of the above analysis we further conclude that these results can be further strengthened if the firms manage their king capital in more efficient ways.

anagement of working capital means "management of current assets and current liabilities, and nancing these current assets". If these firms properly manage their cash, accounts receivables and ventories in a proper way, this will ultimately increase profitability of these companies.

LIMITATIONS OF THE STUDY

e researcher had a difficulty of obtaining the information from the Nairobi Stock Exchange, time straint and funds to carry out the research.

Due to the limited time scheduled for carrying out the study, the researcher was not able to concentrate on all 43 registered companies in NSE but carried only sampled 10 companies. Combining academic work with job is no doubt a thought provoking issue, as it has to do with time.

There were times when the respondents were not co-operative in answering questions posed to them. And the researcher was patient with them and developed friendship with the respondent to offer a good working environment that the respondent could participate in the research

Company rigid policies where the respondents were not free in answering questions posed to them. The researcher kept on assuring them that all was well and the research could not harm the Company in any way.

ompany bureaucracy the researcher got difficulties to get clearance from managers in order
out the research. Due to fear of victimization the researcher kept some confidential
ation about the organization to himself.

esearcher would have obtained more information than what is obtainable here but due to lack
ney to visit some of the firms located a bit further from the researcher place of resident.

UGGESTIONS FOR FURTHER RESEARCH

data used in the study covered a period of five years from 2005-2009. However, the researcher
gests that further research should have the number of years of the sample extended.

e study sampled ten companies out of the forty seven companies quoted at the Nairobi stock
change. The findings of the study could only be generalized to other firms at the Nairobi stock
change not sampled. However, future research should have the sample size increased.

he scope of further research may be extended to other working capital components including cash,
marketable securities and receivables.

The researcher suggests that future research in the same topic be done on specific industries of the
Kenyan economy. In this way, it can be known if the findings are similar in all sectors of the
economy.

REFERENCES

miolsson & Hit. (1996). *The determinant of working capital management policy and its
puet on performance*. National Science Council Project.

Angelo H. AND R. Masulis (1980). *Optimal Capital Structure under Corporate and Personal
ation*. Journal of financial Economics. 8. 3-29

eloof. (2003a). *Liquidity*. 1st Edition Prentice Hall Publishers, USA.

Deloof. M. (2003b). *Does working capital management affect profitability of Belgian firms?*
urnal of Business Finance & Accounting. 30(3). 573 - 587.

Gentry. J.A.. Mehta. D.R.. Bhattacharyya. S.K.. Cobbaut. R.. & Scarmgella. Jean-Louis. (1979).
An international study of management perceptions of the working capital process. Journal of
International Business Studies. 10 (1). 28-38.

Emery. G. W. (1984). *A pure financial explanation for trade credit*. Journal of Financial and
Quantitative Analysis 9(3). 271-285

Garcia- Teruel. P. J. & Martinez- Solano. (2007). *Effects of working capital management on
SME profitability*. International journal of Managerial Finance, Vol.3 Issue.

Graham. (1998). *Journal of Business Finance & Accounting*. 2nd Edition London Publishers

Ghosh S. K. & Maji S. G. (2003). *Working capital management efficiency: A study on the Indian
cement industry*. The institute of cost and works accountants of India. [http://www.icwai.org.pdf]

Greenbaum. (1976). *journal of Business Finance & Accounting*. 1st Edition Prentice Hall
Publishers.

Crott, (1994), *The impact of the change of business cycle on financial ratio in acturing industry*. Journal of the Bank of Taiwan, 46(2), 67-98.

M. and W. Meckling (1976), *Theory of the Firm: Managerial Behavior, Agency Costs apital Structure*. Journal of Financial Economics, 3, 305-360

en, M. C. (1986), *Agency Costs of Free-Cash-Flow, Corporate Finance, and Takeovers*. erican Economics Review, 76, 323-329

M. L., Lancaster C. & Stevens J. L. (1996). *Corporate returns and cash conversion cycles*. urnal of Economics and Finance, 20(1), 33-46

as, D., and R.L. McDonald (1990), *Equity Issues and Stock Price Dynamics*. Journal of inance, 45, 1019-1043

Maness,T. & Zietlow, J. (2004). *Short-term financial management. Australia*: Southwestern Press.

Markowitz, (1952). *Legitimized the concept of risk diversification*. Journal of Finance paper, Prentice Hall Europe.

Martin N. Julian, (1998). *Marketing Management*. 1st Edition Prentice Hall Publishers

Mugenda and Mugenda, (2002). *Research Methods*. 2nd Edition Kenya Publishers.

Myers, S. C. (1984). *The Capital Structure Puzzle*. Journal of Finance, 39,575-592

Myers, S.C.; Majluf, N.S. (1984). *Corporate financing and investment decisions when firms have information that investors do not have*. Journal of Financial Economics, v.13, p. 187-221, 1984.

(2007). *Working Capital Management*. 1st Edition Prentice Hall Publishers, USA.

, R. and Neale, B., 1996. *Corporate Finance and investment. Decisions and Strategies.* and edition. Prentice Hall Europe.

ph C. Davis, (2002). *Organization Communication.* 2nd Edition London Publishers

nger. (2001). *Capital management.* 1st Edition Peason Publishers.

min, H. H., & Soenen, L. (1998). *Efficiency of working capital management and Corporate profitability.* Financial practice and Education, 8(2), 37-45.

Smith, K. V. (1980). *Profitability and liquidity trade off in working capital management.* St. Paul west publishing co.

Weinraub, H. & Visscher, S. (1998). *Industry practice related to aggressive/conservative working capital policies.* Journal of Financial and Strategic Decisions 11(2), 39-46.

Wilner, B. (February 2000). *The exploitation of relationships in financial distress: The case of trade credit.* The Journal of Finance, 55(1), 153.

APPENDIX 1

LISTED COMPANIES AT NAIROBI STOCK EXCHANGE

CULTURAL

ri

Jipingo Plantations Ltd

ii Ltd

MMERCIAL AND SERVICES

cess Kenya Group Ltd.

MC Holding Ltd.

nya Air Ways Ltd.

Marshalls (E.A) Ltd.

Nation Media Group

Standard Group.

Tps Eastern Africa Ltd.

FINANCE AND INVESTMENT

Barclays Bank Ltd

Centum Investment

Kenya Re- Insurance Corporation

Co-operative Bank of Kenya

CFC Stanbic Holding Ltd.

Housing Finance Company

INDUSTRIAL AND ALLIED

Athi River Mining Ltd.

B.O.C Kenya Ltd.

Bamburi Cement Ltd.

British American Tobacco Kenya Ltd.

vestments Ltd

ger Ltd.

s Ltd.

RIAL AND ALLIED CONTINUED

land Cement

ican Breweries LTD.

Ltd

Power and Lighting Company

as Sugar Company Ltd.

ERNATIVE INVESTMENT MARKET SEGMENT

ess Ltd.

iamson Kenya Ltd.

nya Orchards Ltd.

APPENDIX II

QUESTIONNAIRE

arch is meant for academic purposes; it will try to establish the relationship between capital management practices and profitability of companies listed at the NSE. Kindly requested to provide answers to these questions as honestly and prissily as possible. ses to these questions will be treated as confidential.

tick [∨] where appropriate or fill the required information in the spaces provided. The art is general information and every respondent is required to answer where applicable.

ge

   18-25 years [   ]
   26-30 years [   ]
   31-35 years [   ]
   36-40 years [   ]
   41 & above yrs [   ]

2) Gender

       Male [   ]
       Female [   ]

3) How can you term your net operating profit.

Category	Very	High	Average	Low	Very low	Not sure
Response						

4) What is your average payment period of debts in your organization?

       One month   [   ]

Two months [ ]

Three months [ ]

One year [ ]

Two years [ ]

there a relationship between leverage period and working capital management

ctices and profitability of companies?

Yes [ ]

No [ ]

o you take inventory control in your organization?

Yes [ ]

No [ ]

Is there a relationship between inventory control and working capital management
practices and profitability of companies?

How often

Monthly [ ]   Quarterly [ ]

Semi annually [ ]   Annually [ ]

9) Inventory control affect working capital management practices.

	5	4	3	2	1
Agree					
Disagree					
Not sure					

10) Is the relationship between Net operating profitability (NOP) and working capital

managent as a measure of working capital management?

Category	Agree	Disagree	Not sure

Response			

11) Is there a relationship between working capital management practices and profitability of companies?

       Yes [   ]

       No [   ]

12) How can you rate the relationship between working capital management practices and profitability of companies?

Rate	100%	75%	50%	25%	5%
Category					