## A SURVEY ON CORPORATE TURNROUND RESPONSE BY

# FINANCIALLY DISTRESSED COMPANIES QUOTED AT THE NAIROBI

## STOCK EXCHANGE.

BY:

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D61/70441/2008

A Management Project Submitted In Partial Fulfillment Of The Requirements Of

The Degree Of Master Of Business Administration (MBA), School Of Business,

University Of Nairobi.

NOV 2010

# DECLARATION

I declare that this Management project is my original work and has not been presented as a degree course requirement in any other institution of higher learning.

Name Mbogo John Murithi Reg No. D61/70441/2008 Signature..... Date.....

This Management project has been presented for examination with my approval as the university supervisor.

Supervisors Name Herick Ondigo Signature..... Date.....

# DEDICATION

To my dear wife, Rachael and daughter Natalie.

# ACKNOWLEDGEMENT

I am grateful to my supervisor Mr. H. Ondigo for his professional support and positive criticisms in helping me carry out this research.

Special thanks to my family for all their financial support.

# LIST OF ACRONYMS

| NSE  | Nairobi Stock Exchange             |
|------|------------------------------------|
| NYSE | New York Stock Exchange            |
| CBK  | Central Bank of Kenya              |
| US   | United States of America           |
| UK   | United Kingdom                     |
| ROA  | Return on Assets                   |
| CEO  | Chief Executive Officer            |
| EBIT | Earnings before interest and taxes |

## LIST OF APPENDICES

| Companies tested for Z score |  |
|------------------------------|--|
| NSE 20 share index companies |  |
| Questionnaire                |  |
| Z score variables            |  |

#### ABSTRACT

Firms that are experiencing financial distress take one action or another in order to turn around their performance. This study sought to find out what turnaround strategies are taken by companies hen faced by financial distress. The financially distressed companies generally take actions that are aimed at reducing costs e.g. laying off employees, asset sales and dividend cuts or take actions that are aimed at increasing revenue generation e.g. asset acquisitions in order to improve efficiency. In severe cases of financial distress a company may opt or be forced into liquidation through bankruptcy proceedings.

The Kenyan economy under the period of review had mixed results of growing and declining presumably as a result of among others, the global economic crises, the post election violence, loss of investor confidence at the NSE and increased inflation. Thus the need to establish the restructuring strategies the financially distressed companies took in order to turnaround their performance.

This study carried out a survey of the companies that were listed for the entire period of the study(2002-2008). Performance of the companies was established by conducting the Z score analysis on each of the companies. The Z score analysis identified 8 companies has having been financially distressed at one year or another during the period of the study.

The survey found out that employee layoff was the most preferred course of action being carried out by 63% by the companies. Asset restructuring was the second most preferred turnaround strategy being carried out by 50% of the companies. Debt restructuring and top management change were the least preferred turn around strategies each one of them being taken by one company each.

The study also found out that, in the year of distress the restructuring strategies are more intensified and are carried out less intensively in the subsequent years after distress. This may is presumably because of reducing the immediate liquidity problems being faced by the firm.

# TABLE OF CONTENTS

| DECLARATION   | i  |
|---|----|
| DEDICATION  | ii |
| ACKNOWLEDGEMENT   |    |
| LIST OF ACCRONYMS   | iv |
| LIST OF APPEDICES   | v  |
| ABSTRACT  |    |
|   |    |
| TABLE OF CONTENTS   | 1  |
| CHAPTER ONE   |    |
| INTRODUCTION  | 3  |
| 1.1 Background to the Study   | 3  |
| 1.1.2 Turnaround Strategies   |    |
| 1.1.3 The Nairobi Stock Exchange (NSE)                                |    |
| 1.2 Statement of the Problem  |    |
| 1.3 Objectives of the Study   | 8  |
| 1.4 Importance of the Study   | 8  |
| CHAPTER TWO   | 10 |
| LITERATURE REVIEW   | 10 |
| 2.1 Introduction  | 10 |
| 2.1.1 Financial Distress  | 10 |
| 2.1.2 Forms of Financial Distress                                     | 11 |
| 2.1.3 Factors Influencing the Risk of Financial Distress              | 11 |
| 2.2 Turnaround Strategies   |    |
| 2.2.1 Changing the Top Management                                     | 12 |
| 2.2.2 Debt Restructuring  | 13 |
| 2.2.3 Operational Restructuring                                       |    |
| 2.2.4 Asset Restructuring   | 14 |
| 2.2.5 Layoffs of Employees  | 16 |
| 2.2.6 Dividend cuts/omissions   |    |
| 2.3 Empirical Studies on Financial Distress and Turnaround strategies | 17 |
| 2.4 Bankruptcy  | 18 |
| 2.5 Conclusion  | 18 |
| CHAPTER THREE   | 20 |
| RESEARCH METHODOLOGY  | 20 |
| 3.1 Introduction  | 20 |
| 3.2 Research Design   | 20 |
| 3.3 Population  | 20 |
| 3.4 Sample  | 20 |
| 3.5 Data Collection   | 21 |
| 3.6 Data Presentation and Analysis                                    | 21 |
| CHAPTER 4   |    |
| RESULTS AND FINDINGS  | 23 |
| 4.0 Introduction  | 23 |
| 4.1 General   | 23 |

| 4.2 Findings  | 24 |
|---|----|
| 4.2.1 Frequency of actions taken by the financially distressed companies        |    |
| 4.2.2 Timing of restructuring strategies  | 26 |
| 4.2.3 Companies response to effects of the turnaround strategies to performance | 27 |
| 4.2.4 Challenges in implementing turnaround strategies                          | 28 |
| CHAPTER FIVE  | 29 |
| CONCLUSIONS AND RECOMMENDATIONS   | 29 |
| 5.0 Introduction  | 29 |
| 5.1Conclusion   | 29 |
| 5.2 Limitations of the study  | 30 |
| 5.3 Recommendations for further research.                                       | 30 |
| References  | 31 |
| Appendices  | 36 |
|   |    |

# CHAPTER ONE INTRODUCTION

### 1.1 Background to the Study

Prediction and analysis of corporate financial performance is a crucial phenomena in a developing country like Kenya in the light of recent closure of businesses such as banks and insurance companies. Other firms have been put in receivership, and even individuals declared bankrupt. Few businesses grow and prosper without encountering financial problems along the way. A cash flow problem may develop when customers pay more slowly than expected, when major trade creditors respond to a general economic decline by tightening their terms for payment, or when sales fall below expectations (Sudi and Lai, 2001).

The fall of a firm from a well performing position to a poor performing situation measured by any criterion points to fundamental problems with its management and strategies. In these situations managers may sit tight in hope of an upturn or restructure to recover rapidly from poor performance. However, 'masterly' inaction may lead to further deterioration in firm performance (Weitzel and Johnson, 1989)

Firms experiencing poor returns on their assets respond either operationally by making changes on top management (Gilson 1989) or in organizational strategy and structure (Wruck 1990) or financially through debt restructuring and bankruptcy filing (Wilson, John and Lang 1990). Typical responses to financial distress include changing the asset structure by selling assets, divesting, divisions and discounting unprofitable operations (Brown et al 1994); Changing the size and scope of operations by consolidating production facilities and laying off employees (John & john 1992); and Dividend cuts (Smith &Warner 1979). Further Chimney and Randal (1991) found out that dividend omissions are frequently preceded by announcements of poor earnings.

According to Sudi and Lai(2001), recovery and non-recovery firms adopt very similar sets of strategies, and managers on non-recovery firms restructure more intensively than

recovery firms. He further finds that non-recovery firms seem far less effective in strategy implementation than their recovery counterparts. Whereas recovery firms adopt growth-oriented and external-market focused strategies, non-recovery firms engage in fire fighting strategies.

Corporate downward spiral to failure, after the onset of performance decline, is attributed to past researchers (Barker and Mone,1994, Hoffman,1989, and Weitzel and Johnson,1989) to managerial inaction, poor timing and lack of intensity and poor implementation of turnaround strategies. These results suggest that success of managerial responses to performance decline is conditioned by their timing, intensity and effective implementation.

Sudi and Lai(2001) find that recovery and non-recovery firms adopt very similar sets of strategies following financial distress but their strategic choices diverge over time, with recovery firms choosing investment and acquisition to move them from trouble whereas non recovery firms are more internally focused on operational and financial restructuring.

In the turnaround literature a range of definitions of distress has been used by other researchers, some based on change in accounting ratios (simple or adjusted) such as return on assets and some others based on stock returns. Altman (1968) popularized the Z-score as a measure of a firm's bankruptcy likelihood. Over the years, various scholars have done studies measuring the effectiveness of the model. Most, if not all, have shown that the model is accurate in predicting bankruptcy 12 months in advance in excess of 80% of the time. This research will use the Z-score to define poor performance.

## **1.1.2 Turnaround Strategies**

Once a firm finds itself experiencing serious decline in financial performance, such a firm would of course embark on pre-financial distress actions in order to avoid getting into a situation of financial distress. Various scholars have identified some typical turnaround strategies that firms employ to arrest the situation of financial distress. Such strategies as described by Brill and Leiden, (2006) include, Disposing of real property; a company

may opt for this to get money to pay its creditors and meet other operating costs, merging with other firms; Mergers and alliances can put a distressed company back on good financial footing. This is more critical in the case of unnecessary competition, reducing capital spending on research and development; this option may make a firm 'survive' in the short-run. In the long run, research is critical in the light of dynamic business environment, issuing new shares; this depends on whether a company has exhausted its authorized share capital, negotiating with creditors; an organization may negotiate with creditors to extend the duration of debt servicing. This may involve new negotiations on interest rates and paying period. A successful negotiation may save a company from liquidation, liquidation; a situation in which a firm is terminated as a going concern involves selling its assets to salvage its value. The proceeds, net of transaction costs, are distributed to creditors in order of established priority.

Lay offs;reducing staff levels is an option adopted by some organizations. Other firms are right sizing their labour force. This is in consistent with the findings of John *et al* (1992) who reports that employee layoff is a common action for short term period of poor performance but contradicted by Bennet (1991) who casts doubt on the presumed benefit of downsizing, managerial restructuring; top management change is widely quoted as a precondition for successful turnaround since when old ways of operating need to undergo drastic change, it is difficult for incumbent top management to change their habits and institute radical reforms. However, Khanna and Poulsen(1995), find that top management change affects the performance of the firm negatively.

Other operational measures may include, Cutbacks in expenditure by reducing the current expenses both in the field of costs, and with regard to investments, Optimizing the stock situation by selling off excessive stock, as well as reducing the stock, Optimizing turnover by quickened collection of receivables and/or reducing the payment periods.

### 1.1.3 The Nairobi Stock Exchange (NSE)

In Kenya, dealing in shares and stocks started in the 1920's when the country was still a British colony. There was however no formal market, no rules and no regulations to govern stock broking activities. Trading took place on a gentleman's agreement in which standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery, and settling relevant costs. At that time, stock broking was a sideline business conducted by accountants, auctioneers, estate agents and lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialization, the need for association did not arise. (www.nse.co.ke)

To date the NSE has transformed to a modern exchange market with its live trading on the automated trading system being implemented in September 2006. The NSE has forty eight(48) companies listed on the main investment market segment and eight(8) in the alternative investment market segment. Further investment banks and stockbrokers currently operating at the NSE stand at nineteen (18) excluding those that have closed due to poor management and fraud namely, Francis Thuo & Partners, Nyaga Stock Brokers and Discount Securities.

The Nairobi Stock Exchange uses the NSE 20 share index and the NASI index to tract the performance of stocks trading on daily basis. The NSE 20 share index is the commonly referred to and is an equi-weighed geometric mean of the 20 large ordinary stocks traded on the Nairobi Stock Exchange(for the list of the 20 large companies, see appendix)

## 1.2 Statement of the Problem

Corporate turnaround often requires swift managerial action to 'stop the fire'. Corporate failures may be caused by managerial inaction or inappropriate actions (Hoffman, 1989, and Slatter, 1984). Adoption of turnaround strategies itself is no guarantee of recovery from poor performance. For a strategy to be effective, it may have to be carried out swiftly and competently. Poor implementation of turnaround strategies may aggravate decline (Freeman and Cameron, 1993). Barker III and Mone (1994), contend that how

and when managers retrench could be more important than whether managers retrench at all. Similarly, Hoffman (1989) suggests that the difference between successful and failed turnarounds lies more in the strategy implementation process than in its content. Sudi and Lai (2001) in their analysis of 166 potentially bankrupt UK firms, found out that in the distress year over 50% of the distress firms undertake operational restructuring, heavy investment by way of capital expenditure and acquisitions. He further finds that a higher percentage of non-recovery firms than recovery firms carry out operational restructuring, dividend cut/omissions and debt restructuring. In contrast, non-recovery firms employ investment strategies, acquisition and capital expenditure more frequently in the distress year and by fewer firms in the second year after distress.

Kan and Shivdasani (1997) in documenting the restructuring of 92 Japanese firms found out that firms implement a number of downsizing measures such as asset sales, plant closures, and employee layoffs. Firms also expand and diversify, and often restructure their internal operations. Compared to US firms with a similar decline in performance, however, Japanese firms are less likely to downsize, and layoffs affect a smaller fraction of their workforce. This study implies that actions taken by poorly performing companies may not be universal and may vary with location and other factors like ownership.

Wambua (2003) in his research of NSE listed firms, notes that, whereas financially distressed companies should take conventional response actions in order to improve their performance, it is important that such companies take into consideration their individual characteristics like ownership and the industry they operate in. In his research Wambua (2003) sought to find out the short term actions companies in financial distress took in order to turn themselves around. His findings were consistent with those of other researchers as, Brown et al (1993), John and john (1992), Gilson (1990), Smith and Warner (1979) on the typical responses to corporate restructuring during the times of financial distress e.g. Changing the top management, asset restructuring, dividend cuts/omissions, debt restructuring and employee layoffs. However, Wambua (2003) does not show whether, the adoption of the said strategies actually led to the turnaround of the poorly performing companies, or the failure of which led to continued poor performance,

further he used simple (un-adjusted) ratio analysis on secondary data to determine firms in financial distress. Thus, the need to find out whether the undertaken strategies actually led to recovery from poor performance using a more robust Z-score approach as developed by Altman (1968) to grade the distressed companies.

Though the study has been carried out abroad, in Kenya, to the best of my knowledge, no study has used the Z-score approach to determine financially distressed firms and further establish whether the timing of the turnaround strategies have any impact on performance.

This study is therefore aimed at establishing the turnaround strategies that financially distressed firms quoted at the NSE take and hence seek to answer whether those firms that do recover from financial distress adopt different turnaround strategies from those that do not recover from financial distress. Further find out whether if firms that recover from financial distress and those that do not recover differ in the timing of the strategies they deploy and to determine which strategies led to turn-around.

## 1.3 Objectives of the Study

The study seeks to: -

- 1. Establish the turnaround strategies that financially distressed firms quoted at the NSE take.
- 2. Find out whether if firms that recovers from financial distress and those that do not recover differ in the timing of the strategies they deploy.

# 1.4 Importance of the Study

This study will be useful to: -

Management: managers of companies will get information on the action(s) they should take when their firms are faced with poor performance. More importantly they will be able to time when to undertake which strategy depending on the time of poor performance. Government: the government is the ultimate bailer of failing companies especially financial institutions, based on the outcomes of the study; the government will learn useful lessons to influence formulation of policies affecting the industry.

Researchers: the study would be a basis for literature review for researchers interested in the same field. Further the study will provide answers to researchers on whether the timing of turnaround actions is vital in the recovery from poor performance and hence form a basis of studying other factors other than timing.

### **CHAPTER TWO**

## LITERATURE REVIEW

#### 2.1 Introduction

This chapter will detail the literature on corporate turnaround strategies that poor performing companies undertake in order to return to positive performance. Researchers have identified various strategies that companies use in times of poor performance and they include; changing the top management, restructuring debt covenants, dividend cuts, asset restructuring and laying off employees.

#### 2.1.1 Financial Distress

Sten-Buwer & Hamman (2006) define financial distress as the situation when a company cannot continue to exist in its current form and therefore includes: bankruptcy, delisting or a major organizational restructuring. A company which finds itself financially distressed will result to one action or another to employ mechanisms for managing the financial distress so that it can be able to rectify the mismatch between its current available liquid assets and the current obligations of its hard financial contracts (Hart and Moore 1989). Prolonged financial distress may lead to corporate bankruptcy which causes substantial losses to the business community and the society as a whole. Stakeholders such as company managers, creditors, auditors, individual shareholders, pension fund managers and government regulators all have an incentive to identify companies which are more likely to fail, and to take corrective action to prevent failure from occurring.

## 2.1.2 Forms of Financial Distress

Financial distress can take various forms that may include:

Technical insolvency: this refers to a situation where a company is unable to meet its current financial obligations. This may however, be only temporary and subject to remedy.

Insolvency in Bankruptcy: this means the liabilities of a company exceed its assets i.e. the net worth of the company is negative.

Business Failure: refers to a business that has terminated its operations with a resultant loss to creditors. A business can also close and not be counted as a failure.( IAS 14: discontinued operations).

Economic Failure: This occurs when a firm has insufficient revenue to cover all its costs, including cost of capital. Such businesses can continue operating as long as creditors are willing to provide capital and owners are willing to accept below market rates of return. Legal Bankruptcy: this occurs when a firm files for liquidation under the companies Act Cap 486.

## 2.1.3 Factors Influencing the Risk of Financial Distress

Financial distress evolves gradually, and only in rare instances does a single bad decision cause financial distress. The principal factors influencing probability of bankruptcy are:-Firms Asset Mix: Assets are usually industry specific. A firm may be driven to distress if the resources are not allocated efficiently. The mix between long and short-term assets is crucial in a market.

Sensitivity of Companies Revenue to the General Level of Economic Activity: if a company is highly responsive to the ups and downs in the economy, shareholders and lenders may perceive a greater risk of liquidation and demand a higher return in compensation for gearing.

Corporate Governance: inappropriate corporate governance practices may drive a firm into distress. Conflict of interest between various stakeholders may lead to bankruptcy. Ability to generate cash: some firms generate high regular casg flows and have reasonably higher debt capacity than a firm with delayed cash flows which is at a higher risk of experiencing distress.

# 2.2 Turnaround Strategies

Studies have established that poorly performing firms institute remedial action to improve performance (John, Lang, and Netter (1992) and Ofek (1993). Jensen (1989) argues that financial distress forces management to institute efficiency enhancing actions, which cause firm performance to improve. However it has not been established that the actions taken are responsible for the improvement of the firm performance or recovery from distress. Some typical responses to corporate restructuring to be discussed in this study include; changing the asset structure by selling assets, divesting, divisions and discounting unprofitable operations (Brown et al 1993), changing the size and scope of operations by consolidating production facilities and laying off employees (John & john 1992), changing the top management (Gilson 1990), restructuring debt covenants. (Gilson 1990), and dividend cuts (Smith &Warner 1979).

According to Hart and Moore (1989), a company that finds itself financially distressed will result to one action or another to employ mechanisms for managing the financial distress so that it can be able to rectify the mismatch between its current available liquid assets and the current obligations of its hard financial contracts.

Sudi and Lai (2001), in their comparison study on strategies of recovery and nonrecovery firms in sample of 166 financially distressed UK firms, found out that higher proportion of non-recovery firms than recovery firms restructure their operations, cut/omit dividends and restructure their debts in each of the two post-distress years. Further Sudi and Lai (2001) find that the major difference between recovery and nonrecovery firms is that, with the latter, ineffectiveness of restructuring in early years leads to more intensification of strategies. However when the restructuring intensity is cumulated over the post-distress years, these strategies nevertheless do not contribute to recovery.

## 2.2.1 Changing the Top Management

Grinyer, Mayes and McKiernan (1988) report that one of the most important differences between their sample firms achieving recovery from poor performance and control firms is that the former make considerably more management changes. Whitaker (1999) finds that more firms enter financial distress as the result of poor management rather than economic distress. Whitaker (1999) further argues that management actions are significant determinant of recovery and improvement in industry-adjusted market value for firms that were historically poorly managed. According to Slatter (1984), a change in top management is tangible evidence to bankers, investors and employees that something positive is being done to improve the firms performance, even though the cause of the poor performance may have been beyond managements control.

According to Wruck (1990), incumbent managers and directors can inhibit a firm's ability to recover if new or special skills are required to turn the firm's performance around. He finds that distressed firms experience a 52% annual turnover of management. Gilson (1990) finds that within four years after the onset of financial distress, only 47% of old directors still hold their seats; further, 8% of the firms replace their entire board. Capelli (1992) finds that managers are more vulnerable to displacement than other employees. There is empirical evidence of an inverse relation between the probability of management change and firms stock performance.(Coughlan and Schmidt, 1985). Researchers have however recorded mixed results on a firm's stock performance and management change. Announcements of change in senior management in distressed firms are greeted positively (Bonnier and Bruner, 1989), negatively (Khanna and Poulsen, 1995) or neutrally (Warner and Wruck, 1988) by the market.

The above literature thus does not clearly show that management change in poorly performing firms contributes to recovery to positive performance if stock market reaction is used to measure the perceived effectiveness of the management change.

#### 2.2.2 Debt Restructuring

Gilson (1989) defines debt restructuring as a transaction in which an existing debt is replaced by a new contract, with one or more of the following characteristics, interest or principal reduced, maturity extended and/or debt equity swap. Sudi and Lai (2001) define

financial restructuring as the reworking of a firms capital structure to relieve the strain of interest and debt payments and may be separated as equity based or debt based strategies. Equity based strategies cover dividend cuts or omissions and equity issues i.e. rights issue, public offer or institutional placing while debt based strategies refer to the extensive restructuring of a firms debt (Sudi and Lai 2001). A study by Kose (1993) states that one mechanism of dealing with financial distress is to negotiate with creditors and restructure the terms of the contract such that the current obligation is either reduced to an amount that is closer to the cash flows currently generated by the assets or deferred to a later date.

#### 2.2.3 Operational Restructuring

Slatter (1984) states that operational restructuring is that which comprises cost reduction, revenue generation and operating asset reduction strategies to improve efficiency and margin by reducing direct costs and slimming overheads in line with volume. Hofer (1980) posits that operational restructuring is, generally, the first turnaround strategy implemented by a financially distressed firm, as there is no point in assessing the strategic health if the firm goes bankrupt in the near term.

Operational restructuring is primarily designed to generate, in the short term, cash flow and profit improvement. It is of a fire fighting nature and differs from restructuring aimed at the longer term competitive positioning and performance of the firm. (Sudi and Lai 2001). Grinyer,Mayes and McKiernan(1988), in their survey of firms which, after a decline relative to their competitors, achieve a dramatic and sustained improvement in performance, observe that such firms do not restrict themselves to operational cost reduction strategies but shift to long term strategic changes through new product market focus, diversification and acquisition. This implies that operational restructuring is necessary in times of poor performance but not sufficient condition for recovery for many firms.

#### 2.2.4 Asset Restructuring

Bowman and Singh (1993) finds that asset restructuring covers reorganizing the firm into self contained strategic business unit; divestment of lines of businesses not fitting the

core business; acquiring companies that relate to and strengthen the core; discounting unpromising products; and forming strategic alliances, joint ventures and licensing agreements. In addition two companies can merge to form a single unit. There are a number of reasons why companies merge but the most primary motivation is to increase the value of the combined enterprise. Such a combination causes synergy to exist from four sources (Brigham 1985):operating economies, which result from economies of scale in management, marketing, production and distribution; financial economies including lower transaction costs; differential management efficiency and increased market power due to reduced competition

According to Hofer, (1980), asset restructuring covers asset divestment and asset investment. Where firm is in severe distress and/or where strategic health is weak, asset reduction is deemed imperative for turn around. Divestment of subsidiaries is perhaps the most common turnaround strategy by all but smallest firms (Slatter 1984). The objective of asset divestment is to do away with non profit generating assets( and halt cash drain), sell off none core assets or even profitable assets for the need to raise cash to alleviate financial distress and debt restructuring. In their sample of Japanese firms Kan and Shivdasni(1997), find that asset reduction contributes to significant improvement in operating income. Asset investment covers business and corporate level investments and comprises both internal capital expenditure and acquisitions. (Sudi and Lai, 2001). Capital expenditure is designed to achieve efficiency e.g. buying new equipment (Hambrick and Schecter, 1983), or computerized processing and monitoring equipment which speeds up product and market response, improves productivity and reduces costs(Grinyer, Mayes and McKiernan, 1988). Slatter (1984) finds that firms with poor financial performance but not yet in severe distress often result to acquisitions to accelerate growth. Acquisitions may thus contribute to successful sharpbend and sustained good performance thereafter but need to be selected and managed carefully (Grinyer, Mayes and McKiernan, 1988)

15

## 2.2.5 Layoffs of Employees

Employees layoffs maybe induced by unexpected adverse market conditions leading to poor profitability or due to improved efficiency leading to increased profitability. Palmon *et al* (1997) found out that there are negative abnormal returns for firms that announce layoffs that are motivated by declining demand and positive abnormal returns for firms that announce layoffs that are motivated by efficiency improvement. One interesting issue in their findings is why firms announce a declining market condition as reason for a layoff when investors perceive such an announcement as a negative signal. One explanation they note is that an incomplete or misleading disclosure could hurt management's reputation. Employer reasons for dismissing staff the world over are all too familiar; general business or industry downturns; efforts to improve efficiency technological change and automation, competitive pressures, mergers &acquisitions; and the belief that best staff is lean staff.

Gilson (1997, 1998) analyzed the corporate downsizing program undertaken by the *Scott paper company* when it was faced by financial distress in the period 1988-1993 and reported that;

'In less than a year, Dunlap (C.E.O) oversaw the elimination of almost one third of the company's 34,000 hourly and salaried employees, through layoffs and asset sales. By the end of the restructuring in late 1995, when Scott was acquired by Kimberly Clarke, the value of Scotts common stock had increased by more than \$3 billion (over 200%)'.

However, some recent studies have cast doubt on the presumed benefits of downsizing, in many cases expected gains have failed to materialize .For example a survey by the Wyatt company, a management consulting firm of 1005 company's that downsized, found out that only 46% of the company's achieved their expense reduction goals, 32% increased profits to the degree anticipated, 22% reached their targets for increased productivity and 21% met their expectations for improving return on investment (Bennet 1991).

From the above literature it's clear that firms should not just proceed to reduce employee cost in a bid to improve performance. Care should be exercised to ensure that action taken is beneficial to the company and should lead to the achievement of the objective of the company.

## 2.2.6 Dividend cuts/omissions

According to Lang and Netter (1992), large firms respond to financial distress with rapid and aggressive dividend reductions. He further found out that distressed firms may also raise equity funds via share issues more than non-distressed firms because of pressure from creditors concerned with the security of their lending. Chimnoy and Rendal (1991) state that dividend omissions are frequently preceded by announcements of poor earning or loss and/or by previous cuts in payouts. This implies that managers tend to defer an omission until low prospects make it imperative.

De Angelo, and Skinner (1992), analyzed the relation between dividend reductions and poor earnings performance by firms listed at the NYSE, with established track records of positive earnings and dividend payments. Their findings were that an annual loss is essentially a necessary, but not sufficient condition for dividend reduction in firms with established earnings and dividend record. In this study they found out that, approximately half (50.9%) of the loss firms reduced dividends in the initial loss year, further, there was only 1% incidence of non loss firms reducing dividends.

Similarly, Akhigbe and Madura (1996) found out that firms experience favorable longterm share price performance following dividend initiations. Conversely firms omitting dividends experience unfavorable long-term share price performance. Firms in financial distress tend to reduce or omit dividends due to liquidity constraints, restrictions imposed by debt covenants, or strategic considerations such as improving firms bargaining position with trade unions (DeAngelo and DeAngelo ,1990).

**2.3** *Empirical Studies on Financial Distress and Turnaround strategies* Sudi and Lai(2001) in their study, 'corporate financial distress and turnaround strategies: An empirical analysis', sampled 166 potentially bankrupt UK firms for the period 19851993 and tracked their turnaround strategies for a period of three years from distress. Their results show that recovery and non recovery firms adopt very similar sets of strategies, and that managers of non recovery firms restructure more intensively than recovery firms. Nevertheless, non recovery firms seem far less effective in strategy implementation than their recovery counterparts. Whereas recovery firms adopt growth oriented and external market focused strategies, non recovery firms engage in fire fighting strategies.

Similarly, Padilla and Raquejo(2000), in their study, 'financial distress, bank restructuring, and layoffs', developed a model of a financially distressed firm to analyze the implications of a bank restructuring when the operational characteristics of the firms project for the post-distress period are endogenously determined as part of the work out. The study establishes a formal link between the debt restructuring and operational actions such as employee layoffs. In this study however, the focus was only firms with simple capital structures, where a single bank provides the outside funds needed by the firm.

## 2.4 Bankruptcy

In Kenya Cap 486 of the laws of Kenya governs companies' bankruptcy proceedings. According to this law, a distressed company may compromise with creditors and members. Subsection 209,210 of the same law further gives a provision for facilitating reconstruction and amalgamations of companies.

Cap 486(234) further grants powers to the court to appoint a liquidator(s) to liquidate a company after a winding up petition has been determined. Liquidation is the last resort after all other remedial actions have failed to revert a company into a good performance after financial distress sets in.

### 2.5 Conclusion

It is evident from the above literature that, when a company records a poor financial performance usually such a company will take some steps in order to avoid getting into a situation of financial distress. The researchers have detailed the actions that firms take in times of poor performance, but in some cases the results of certain actions are found to be conflicting, for example, Kan and Shivdasani (1997) finds that faced with similar declining performance patterns, Japanese firms are less likely to downsize as compare to

US firms. Similarly evidence announcements of change in senior management in distressed firms are greeted positively (Bonnier and Bruner, 1989), negatively (Khanna and Poulsen, 1995) or neutrally (Warner and Wruck, 1988) by the market. Thus these studies show that companies may not take similar actions when faced by performance decline, further companies may take the same actions but some will turnaround their performance but others may continue to perform poorly. Therefore, other than just taking the actions, other factors seem to be in play, for a firm to turn around or continue to perform poorly. By carrying out this study in Kenya, it will give insight as to whether the same actions are taken in developing economies like Kenya as it is in the developed economies as indicated by the studies reviewed.

# CHAPTER THREE RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter will outline the research design, the population, sample, data collection method, and the data analysis model.

## 3.2 Research Design

A survey research design was selected for this study. The survey was done on all the companies that were identified to be in financial distress. This design is preferred in order to gather the information required regardless of the industry or size of the companies under review.

## 3.3 Population

The population consisted of the 53 companies that were listed at the NSE for the entire period of study (2002-2008). However those companies that were not listed for the entire period were ignored for example, Safaricom ltd, Uchumi, Cooperative bank among others. This duration is considered appropriate for the study because during the period, Kenya's economy had mixed results of growing and declining presumably as a result of among others, the global economic crises, the post election violence, loss of investor confidence at the NSE and increased inflation.

## 3.4 Sample

A purposive sampling method was applied for this study, where the sample elements were all the financially distressed companies quoted in the NSE through year 2002 to 2008. This sampling method was appropriate since only those companies that were found to be financially distressed during the period of study were considered to be of purpose and tested for turnaround strategies; this prevented the problem of ending up with a sample which contained non distressed firms. The sample size was obtained after conducting Z-score analysis on all the firms during the period of study to determine the financially distressed.

#### 3.5 Data Collection

The study was based on primary and secondary data. The secondary data was gathered from the annual reports and accounts of the sampled firms for the period under review. Since the secondary data was audited, it was considered reliable for the purpose of the study. Primary data was collected by use of self-administered questionnaires (see appendix 3) that contained both open and closed ended questions. Use of primary data was essential since some variables like change of top management and agreements to change debt covenants are not always reported in the financial statements of companies. The questionnaires were directed to finance officers in the sampled firms to avoid people without correct information from filling the questionnaires, thus obtain reliable and valid data.

#### 3.6 Data Presentation and Analysis

Data presentation and processing was done using Ms-Excel. The presentation was done in tables and analysis done using percentages and frequencies.

The Z-score was used to identify financially distressed companies since the mere observation of financial statements of a company cannot accurately determine whether the company is financially distressed hence the need to test the reported statements. Over the years, various scholars have done studies measuring the effectiveness of the Z-score. Most, if not all, have shown that the model is accurate in predicting bankruptcy 12 months in advance in excess of 80% of the time. This research will use the coefficients in the model as developed by Altman (1968).

#### The Z-Score Formulae (Source: Altman/MCRC)

#### **A- For Manufacturing Companies**

Z= 1.2A+1.4B+3.3C+0.6D+1.0E

Where;

Z = Score

A= Working capital divided by total assets

B= Retained earnings divided by total assets

C= Earnings before interest and taxes (EBIT) divided by total assets

D= Market value of preferred and common equity divided by total liabilities

E= Sales divided by total assets

#### **B-** For Non Manufacturing Companies

Z=1.2A+1.4B+3.3C+0.6D

Z= Score

A= Working capital divided by total assets

B= Retained earnings divided by total assets

C= Earnings before interest and taxes (EBIT) divided by total assets

D= Market value of preferred and common equity divided by total liabilities

#### The Scores

#### For Manufacturing Companies

| Probability of Bankruptcy (poor performance) | Score           |
|--|-----------------|
| Low  | 3.073 and above |
| Gray area                                    | 3.073 to1.875   |
| High   | 1.875 and below |

#### For Non Manufacturing Companies

| Probability of Bankruptcy (poor performance) | Score          |
|--|----------------|
| Low  | 2.6 and above  |
| Gray area                                    | 1.10 to 2.6    |
| High   | 1.10 and below |

A company will be considered to be performing poorly, if it has a minimum of one year of Z-score value of 3.073 and below, or 2.60 and below for manufacturing companies for and non manufacturing companies respectively, after two consecutive years of a gray area score or low score for both segments. The calculation of the ratios in the Z-score formulae will be done using Ms-Excel.

#### Turn-around

A firm will be considered to have a turn-around when the Z-score returns to the low scores over a two-year period following the distress year

## **CHAPTER 4**

## **RESULTS AND FINDINGS**

### 4.0 Introduction

This chapter will outline the results of the survey, on the responses that the identified distressed firms took in order to turn around their performance. Since all the analysis was done using Excel the presentation is done in tables showing percentages and frequencies.

### 4.1 General

Secondary data of annual statements was available for 33 companies that were listed for the entire period of the study (2002-2008). The figures for variables Z-Score approach, i.e. working capital, retained earnings, total assets, sales, market value of equity were extracted from the annual statements.

Z-score analysis was carried out for all the 33 companies for all the years under study in order to identify the financially distressed companies.

After the Z-score analysis, 8 companies were found to have been financially distressed in 1 year or another in the period of study. Companies that were not listed for the entire period of the study were not considered.

Questionnaires were sent to the 8 companies that satisfied the purposeful sampling criterion. All the companies returned the questionnaires sent to them hence a 100% response rate.

The results show that the main response actions taken by companies in response to financial distress were: employee layoff, asset restructuring, dividend cut/omissions, debt restructuring and top management change. All the financially distressed companies studied recovered from distress after taking one or a combination of turnaround strategies.

The above findings are found to be consistent with other researchers results as those by, Sudi and Lai(2001), wambua(2003), Slatter(1984), Gilson(1989), Hofer(1980) and Khan and Shivdasani(1997).

Of all the financially distressed companies, 63% are partially locally and foreign owned while 37% of the companies are locally owned. 50% of the companies had been listed for between 5-15 years, 38% were listed for over 30 years while 12% were listed for between 15-30 years. For all the companies, less than 5% of ownership was held by management.

When companies were asked to indicate the method they used to determining poor performance, 100% of the companies relied on ratio analysis. No company used the Z-score approach or any other method to determine poor performance.

# 4.2 Findings

|   |                        |           | No. of    | % of   |
|---|------------------------|-----------|-----------|--------|
|   | Response Action        | Frequency | companies | Action |
| 1 | Employee layoff        | 5         | 8         | 63%    |
| 2 | Asset Sales            | 4         | 8         | 50%    |
| 3 | Asset Acquisitions     | 4         | 8         | 50%    |
| 4 | Debt restructuring     | 1         | 8         | 13%    |
| 5 | Dividend Cut/Omissions | 3         | 8         | 38%    |
| 6 | Top Management Change  | 1         | 8         | 13%    |
| 7 | Equity issue           | 2         | 8         | 25%    |

**4.2.1 Frequency of actions taken by the financially distressed companies.** Table 1. Frequency of actions taken by the financially distressed companies.

The table shows the frequency (%) of firms adopting specific restructuring strategies in response to financial distress

Table 1 reports the frequencies of use of various turnaround strategies by the companies which may have lead to the recovery. Employee layoff is the most carried out turnaround strategies with 63% of the firms adopting it. This may be explained by the fact that

employee layoff is a quick way of reducing costs and improving efficiency. This is in consistent with the findings of Gilson(1998) and Wambua(2003), howeverPalmon *et al* (1997) found out that there are negative abnormal returns for firms that announce layoffs that are motivated by declining demand and positive abnormal returns for firms that announce layoffs that are motivated by efficiency improvement. One interesting issue in their findings is why firms announce a declining market condition as reason for a layoff when investors perceive such an announcement as a negative signal. One explanation they note is that an incomplete or misleading disclosure could hurt management's reputation. Therefore the reasons given for the layoff is of importance to the expected impact on performance.

The second most adopted strategy is Asset sales and Asset acquisitions at 50% each. Asset sales could have been opted for in order to dispose non profit generating assets and reduce cash drain or even sell profit making assets for the need of raising cash to alleviate distress. This is in consistent with the findings of Hofer (1980) who finds that where the firm is in severe distress asset reduction is deemed imperative for turnaround. Asset acquisition may have been prompted by the idea to improve efficiency/productivity by the company. It may also mean acquiring businesses that fit the firm's core strengths with a long term profit potential. This finding is supported by Grinyer (1988), who finds that asset investments improves productivity and reduces costs.

Dividend cut/omissions were adopted by 38% of the companies. 2 of the companies omitted dividends for at least a year while 1 of the companies reduced dividends. All the companies did not cut/omit dividends since as De Angelo, and Skinner (1992) found out, an annual loss is essentially a necessary, but not sufficient condition for dividend reduction in firms with established earnings and dividend record. Those firms that did not cut/omit dividends may be explained by the studies of Akhigbe and Madura (1996) who found out that firms experience favorable long- term share price performance following dividend initiations. Conversely firms omitting dividends experience unfavorable long-term share price performance.

Under the period of review, 25% of the distressed companies issued new shares in one year or another. This may have been prompted by failure to get debt by the companies or because both companies have been listed for more than 10 years hence having investor confidence on them.

The least turnaround action taken by financially distressed firms are top management change and debt restructuring with 13% of the companies taking the actions. Top management change may have been take by only one firm due to the possible inverse relation between top management change and firms stock performance as indicated by Capelli(1992).

#### 4.2.2 Timing of restructuring strategies

|   |                         | Distress | distress |                 | No of     |
|---|-------------------------|----------|----------|-----------------|-----------|
|   | Response Action         | year     | year+1   | distress year+2 | companies |
| 1 | Employee layoff         | 100%     | 60%      | 60%             | 5         |
| 2 | Asset Sales             | 100%     | 50%      | 50%             | 4         |
| 3 | Asset Acquisations      | 100%     | 50%      | 50%             | 4         |
|   |                         |          |          |                 |           |
| 4 | Debt restructuring      | -        | -        | 100%            | 1         |
| 5 | Dividend Cut/Ommissions | 100%     | 67%      | 33%             | 3         |
|   |                         |          |          |                 |           |
| 6 | Top Management Change   | -        | 100%     | -               | 1         |
| 7 | Equity issue            | -        | -        | -               | -         |

Table.2 Frequency of timing of restructuring strategies

The table shows the timing specific restructuring strategies in response to financial distress by the companies.

Table 2 reports the timing of the specific strategies in response to the financial distress from the distress year through to the second year after distress.

Corporate turnaround often requires swift managerial action to 'stop the fire'. Corporate failures may be caused by managerial inaction or inappropriate actions (Hoffman, 1989, and Slatter, 1984). Adoption of turnaround strategies itself is no guarantee of recovery from poor performance. For a strategy to be effective, it may have to be carried out swiftly and competently.

From the results above it shows that, in the distress year, employee layoff, asset sales, asset acquisitions, and dividend cut/omissions were carried out by 100% of the distressed

firms. 60% of the firms went further to layoff employees in the first year and second year of distress. After asset restructuring in the year of distress, halve of the firms went ahead and did more asset restructuring during the first year and second year of distress. The firm that had debt restructuring did it at the second year after distress possibly because of the negotiations that characterize such an action between the lenders and the company. Top management change was carried out by only 1 firm and after 1 year of distress. This may be due to pressure from shareholders and debt holders after realizing the firm may be performing poorly due to management incompetence.

These results show that most of the restructuring is intensified in the year of distress and subsides in the subsequent years. This is presumably because of reducing the immediate liquidity problems being faced by the firm.

#### 4.2.3 Companies response to effects of the turnaround strategies to performance

Companies were asked to indicate in a scale of 1-3(1- negative 2-no effect, 3positive), the effect of each of the turnaround strategies taken on the financial
performance and the responses were as follows:-

|   | Response Action        | Effect of response to performance |     |     |           |   |
|---|------------------------|-----------------------------------|-----|-----|-----------|---|
|   |                        |                                   |     |     | total     |   |
|   |                        | 1                                 | 2   | 3   | companies |   |
| 1 | Employee layoff        | 13%                               | 25% | 63% |           | 8 |
| 2 | Asset Sales            | 38%                               | 38% | 25% |           | 8 |
| 3 | Asset Acquisitions     | 25%                               | 63% | 13% |           | 8 |
| 4 | Debt restructuring     | 0%                                | 25% | 75% |           | 8 |
| 5 | Dividend Cut/Omissions | 75%                               | 25% | 0%  |           | 8 |
| 6 | Top Management Change  | 13%                               | 63% | 25% |           | 8 |
| 7 | Equity issue           | 13%                               | 38% | 50% |           | 8 |

These results indicate that on all the response actions, debt restructuring is viewed to bring positive performance by many companies at 75%, presumably because of the easing of pressure from the current debt obligations on the other hand no company feels that debt restructuring has an effect of negative performance.63% of the responses indicate that employee layoff has an effect of positive performance of the company.

100% of the companies feel that dividend cut/omission does not lead to positive performance effect, 75% of the companies is of the view that dividend cut/omission has a negative effect on performance of the company.

#### 4.2.4 Challenges in implementing turnaround strategies

In the questionnaire the companies were asked to indicate the difficulties they encountered in implementing the turnaround strategies. Most of the responses indicated some of the challenges as being: lack of management support at the required time, lack of enough resources e.g. to retrench staff large sums of monies are required, interference of implementation by the courts of law and the fear of officers being blamed in the event the strategies do not work by the shareholders and debt holders.

## **CHAPTER FIVE**

#### **CONCLUSIONS AND RECOMMENDATIONS**

#### 5.0 Introduction

This chapter will outline the conclusion of the study, limitations of the study as well as recommendations for further research.

#### 5.1Conclusion

All firms that are faced with potential financial distress and want to avoid it, or those that are already in distress and want to turn themselves around, must take one action or another in order to arrest the situation. Previous researchers have prescribed various strategies of turnaround which should be adopted by financially distressed firms. These studies have used different methods to determine the financially distressed firms; this study used the Z-score approach to determine the financially distressed.

Though all the companies that were distressed turned themselves around, it was evident that most of the strategies were intensively carried out in the in the year of distress and less intensive in the first and second years of distress.

The results show that companies faced with financial distress responded by either taking one or a combination of turnaround strategies. For example 63% of the companies lay off staff, 50% did asset restructuring, and 38% did dividend cut/omission while 13% did debt restructuring and top management change.

The timing of the restructuring strategies seem to be of importance to the companies, since all the strategies that the company has full discretion to implement fast e.g. employee layoff, asset restructuring and dividend cuts re all intensively carried out in the year of distress, presumably to accelerate the recovery from distress. On the other hand, debt restructuring and top management chnge are done after the distress year since a lot of consultations are needed to facilitate their execution.

An interesting finding was that some financially distressed firms did increase the dividends during the year of distress as opposed to the conventional dividend cuts/omissions.

The least preferred restructuring strategies were found to be top management change and debt restructuring with each being undertaken by one company. The responses of the companies to the perceived effect of the restructuring strategies on performance are well in line with the scrutinized financial statements for the said effects hence proving the primary data was reliable.

## 5.2 Limitations of the study

It was difficult to correctly tell the length of time required for the effect of a strategy to show through in the firms financial performance. Thus, it is difficult to trace the impact of each strategy on the firma performance.

Some companies' performances varied due to different accounting methods for example depreciation and this was not factored in the study.

## 5.3 Recommendations for further research.

Since the study investigated the use of only 7 restructuring strategies, further research can be done by including other turnaround strategies such s revenue enhancement strategies that are not public data.

Another study may be carried out by studying together those companies that use the same accounting policies, to find out whether the use of different policies determine the restructuring action to be taken and the timing of the action.

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# Appendices

## Appendix 1 List of Firms Quoted at the Nairobi Stock Exchange for the entire study period

(Source: www.nse.co.ke)

#### Agriculture

- 1. Rea Vipingo Ltd.
- 2. Sasini Tea & Coffee Ltd.
- 3. Kakuzi Ltd.

#### **Commercial and Services**

- 1. Marshalls E.A. Ltd.
- 2. Car & General Ltd.
- 3. Kenya Airways Ltd.
- 4. CMC Holdings Ltd.
- 5. Nation Media Group Ltd.
- 6. TPS (Serena) Ltd.
- 7. Standard Group Ltd.

#### **Finance and Investment**

- 1. Barclays Bank of Kenya Ltd.
- 2. CFC Stanbic Bank Ltd.
- 3. Housing Finance Ltd.
- 4. Centum Investment Ltd.
- 5. Kenya Commercial Bank Ltd.
- 6. National Bank of Kenya Ltd.
- 7. Pan Africa Insurance Holdings Co. Ltd
- 8. Diamond Trust Bank of Kenya Ltd.
- 9. Jubilee Insurance Co. Ltd
- 10. Standard Chartered Bank Ltd.
- 11. NIC Bank Ltd

#### **Industrial and Allied**

- 1. Athi River Mining Ltd.
- 2. British American Tobacco Kenya Ltd.
- 3. E.A. Cables Ltd.
- 4. E.A. Breweries Ltd.
- 5. Sameer Africa Ltd.

- Kenya Oil Ltd.
   Mumias Sugar Company Ltd.
- 8. Unga Group Ltd.
   9. Bamburi Cement Ltd.
   10. Crown berger (K) Ltd.
- 11. E.A Portland Cement Co. Ltd.
- 12. Kenya Power & Lighting Co. Ltd.13. Total Kenya Ltd.

Appendix 2

## NSE 20 SHARE INDEX CONSTITUENTS (As at 9 June 2010)

**1.** Mumias Sugar Company Ltd.

- 2. Express
- 3. Rea Vipingo
- 4. Sasini
- 5. Cmc
- 6. Kenya Airways
- 7. Safaricom
- 8. Nation
- 9. Barclays
- 10. Equity
- 11. Kcb
- 12. Stanchart
- 13. Bamburi
- 14. Bat (K)
- 15. Kengen
- 16. Centum
- 17. E.A.B.L
- 18. E.A Cables
- 19. Kplc
- 20. Athiriver

Appendix 3 Questionnaire

S/NO.....

## PART A

| 1. | Name (optional)                    |                   |                 |                    |
|----|------------------------------------|-------------------|-----------------|--------------------|
| 2. | Name of the Company                |                   |                 |                    |
| 3. | Position held in the organization. |                   |                 |                    |
| 4. | Duration since joining the organiz | zation            |                 |                    |
| 5. | Please tick the category that best | describes your    | company,        |                    |
|    | I. Foreign owned                   |                   |                 |                    |
|    | II. Locally owned                  |                   |                 |                    |
|    | III. Partially locally and foreign | owned             |                 |                    |
| 6. | For how long has the company be    | een listed at the | e NSE           |                    |
|    | Less than 5 years                  |                   |                 |                    |
|    | 5-15 years                         |                   |                 |                    |
|    | 15-30 years                        |                   |                 |                    |
|    | Over 30 years                      |                   |                 |                    |
| 7. | Does the company have branches     | ;?                | N               |                    |
|    | Yes 📙                              |                   | No              |                    |
| 8. | How do you rate the annual finan   | icial performan   | ice of the orga | nization since you |
|    | joined                             |                   |                 |                    |
|    | I. Improved                        |                   |                 |                    |

|     | I · · · ·        |  |
|-----|------------------|--|
| II. | No change at all |  |
|     |                  |  |

- III. Decrease
- 9. What percentage of ownership is held by the management

| Less than 5% |  |
|--------------|--|
| 5-15%        |  |
| 16-25%       |  |
| Above 25%    |  |

### PART B

10. What methods do you use in determining poor performance/ financial distress

- I. Ratio analysis
- II. Z-score approach
- III. Other (specify).....

11. In the event of poor performance/financial distress what time does the management take to carry out the following managerial actions as corrective measures?

|                       | Less than | 6-12   | 13-24  | over 24 |
|-----------------------|-----------|--------|--------|---------|
|                       | 6 months  | months | months | months  |
| Employee layoff       |           |        |        |         |
| Top management change |           |        |        |         |
| Asset restructuring   |           |        |        |         |
| Debt restructuring    |           |        |        |         |
| Dividend cut/omission |           |        |        |         |
| Equity issue          |           |        |        |         |
| Employee layoff       |           |        |        |         |

2. In a scale of 1-3(1- negative 2-no effect, 3-positive), indicate by using a tick the effect of each of the turnaround strategies taken on the financial performance.

|                       | 1 | 2 | 3 |
|-----------------------|---|---|---|
| Employee layoff       |   |   |   |
| Top management change |   |   |   |
| Asset restructuring   |   |   |   |
| Debt restructuring    |   |   |   |
| Dividend cut/omission |   |   |   |
| Equity issue          |   |   |   |

3. What challenges did the organization face in implementing the turnaround strategies

..... ..... .....

Thank You for Your Time and Support

Appendix 4

Z score Variables

|                          | 2002     | 2003     | 2004     | 2005     | 2006     | 2007     | 2008   |
|--------------------------|----------|----------|----------|----------|----------|----------|--------|
| Agriculture              |          |          |          |          |          |          |        |
| 1. Vipingo               | 0.1166   | 0.1120   | 0.1414   | 0.1559   | 0.1251   | 0.1503   | 0.1452 |
| 2. Sasini                | 0.1014   | 0.1510   | 0.0867   | 0.0660   | 0.1097   | 0.0697   | 0.0898 |
| <ol><li>Kakuzi</li></ol> | (0.0006) | (0.1041) | (0.0620) | (0.0644) | (0.0864) | (0.0390) | 0.0114 |
| Commercial               |          |          |          |          |          |          |        |
| 2. Marshalls             | (0.1767) | (0.1570) | (0.1351) | 0.1115   | 0.1284   | 0.1086   | 0.1261 |
| 3. Car & G               | (0.0207) | 0.1293   | 0.1640   | 0.1217   | 0.1350   | 0.1498   | 0.1511 |
| 5. Airways               | 0.0716   | 0.0167   | (0.0329) | (0.0299) | 0.0294   | 0.0743   | 0.0953 |
| 6. CMC                   | 0.2855   | 0.2677   | 0.2616   | 0.2485   | 0.2809   | 0.2788   | 0.2633 |
| 8. Nation                | 0.2423   | 0.2868   | 0.2077   | 0.2749   | 0.3342   | 0.2914   | 0.2803 |
| 9. TPS                   | 0.0284   | 0.0348   | 0.0316   | 0.0349   | 0.0543   | 0.0102   | 0.0357 |
| 11. Standard             | (0.1148) | (0.0412) | (0.0123) | 0.0278   | 0.1839   | 0.1037   | 0.1150 |
| Finance                  |          |          |          |          |          |          |        |
| 1. Barclays              | 0.1163   | 0.1140   | 0.1119   | 0.1264   | 0.1262   | 0.1114   | 0.1214 |
| 2. CFC                   | 0.2007   | 0.1910   | 0.1949   | 0.1328   | 0.1390   | 0.1390   | 0.1732 |
| 3. Housing               | 0.0981   | 0.0985   | 0.1184   | 0.1298   | 0.1503   | 0.1395   | 0.2555 |
| 4. Centum                | 0.0727   | 0.0152   | (0.0255) | (0.0006) | 0.0256   | 0.0340   | 0.0296 |
| 5. KCB                   | 0.0865   | 0.0923   | 0.1233   | 0.1287   | 0.1256   | 0.1096   | 0.1103 |
| 6. NBK                   | 0.0760   | 0.0831   | 0.0531   | 0.0989   | 0.1065   | 0.1199   | 0.1454 |
| 7. Pan Africa            | (0.0030) | 0.2204   | 0.2383   | 0.2520   | 0.2793   | 0.2322   | 0.1946 |
| 8. Diamond               | 0.2023   | 0.1531   | 0.1286   | 0.1008   | 0.1319   | 0.1522   | 0.1250 |
| 9. Jubilee               | 0.7136   | 0.2669   | 0.2406   | 0.2268   | 0.2355   | 0.2165   | 0.1586 |
| 10. Standard Cha         | 0.0923   | 0.1005   | 0.0903   | 0.1316   | 0.1250   | 0.1198   | 0.1161 |
| 11. NIC                  | 0.2678   | 0.2344   | 0.1589   | 0.1349   | 0.1165   | 0.1515   | 0.1194 |
| Industrial               |          |          |          |          |          |          |        |
| 1. Athi River            | 0.0822   | 0.1236   | 0.0142   | 0.1657   | (0.0055) | 0.0184   | 0.0093 |
| 3. BAT                   | 0.2079   | 0.1974   | 0.1385   | 0.1879   | 0.1504   | 0.0484   | 0.0216 |
| 5. E.A. Cables           | 0.5352   | 0.5302   | 0.5201   | 0.6023   | 0.5967   | 0.2470   | 0.1485 |
| 6. E.A. Brewerie         | 0.2216   | 3.8492   | 0.3414   | 0.3827   | 0.3867   | 0.3182   | 0.2606 |
| 7. Sameer                | 0.4190   | 0.4114   | 0.3733   | 0.3755   | 0.3224   | 0.0561   | 0.4079 |
| 9. Mumias                | 0.0797   | 0.0913   | 0.1941   | 0.2145   | 0.2054   | 0.1754   | 0.0836 |

VALUES OF A= Working capital divided by total assets

| 10. Unga         | 0.0138   | 0.0047   | 0.0012 | 0.0694 | 0.1491 | 0.2051 | 0.2941 |
|------------------|----------|----------|--------|--------|--------|--------|--------|
| 12. Crown        | 0.4064   | 0.5025   | 0.2824 | 0.2584 | 0.2521 | 0.2376 | 0.1777 |
| 13. E.A Portland | 0.0802   | 0.1779   | 0.1795 | 0.2663 | 0.2302 | 0.1941 | 0.1637 |
| 14. KPLC         | 0.0421   | (0.0604) | 0.0353 | 0.0828 | 0.0985 | 0.0252 | 0.0374 |
| 15. Total        | 0.1723   | 0.2369   | 0.2079 | 0.1710 | 0.1196 | 0.1610 | 0.1552 |
| 17. Kengen       | (0.0371) | 0.0880   | 0.0282 | 0.0166 | 0.1022 | 0.0268 | 0.0242 |
|                  |          |          |        |        |        |        |        |

|                        | 2002     | 2003     | 2004     | 2005     | 2006     | 2007     | 2008     |
|------------------------|----------|----------|----------|----------|----------|----------|----------|
| Agriculture            |          |          |          |          |          |          |          |
| 1. Vipingo             | 0.0572   | 0.0125   | 0.1730   | 0.1771   | 0.1475   | 0.1438   | 0.1392   |
| 2. Sasini              | (0.0308) | (0.0501) | 0.2751   | (0.1525) | 0.0990   | (0.0185) | 0.1863   |
| 3. Kakuzi              | 0.0030   | (0.0091) | 0.0433   | (0.0303) | 0.1103   | 0.1139   | 0.1465   |
| Commercial             |          |          |          | · · · ·  |          |          |          |
| 2. Marshalls           | 0.0017   | 0.0228   | 0.0749   | 0.0625   | 0.0412   | 0.0337   | (0.1402) |
| 3. Car & G             | 0.0329   | 0.1096   | 0.0593   | 0.2438   | 0.1236   | 0.1261   | 0.1169   |
| 5. Airways             | 0.0478   | 0.0248   | 0.0728   | 0.1232   | 0.1005   | 0.0773   | 0.0718   |
| 6. CMC                 | 0.0541   | 0.0531   | 0.0606   | 0.0655   | 0.0715   | 0.0946   | 0.1105   |
| 8. Nation              | 0.1758   | 0.2227   | 0.2210   | 0.2301   | 0.2175   | 0.2715   | 0.2886   |
| 9. TPS                 | 0.0796   | 0.0216   | 0.0961   | 0.0279   | 0.0812   | 0.0914   | 0.0507   |
| 11. Standard           | 0.0020   | 0.1052   | 0.1249   | 0.1203   | 0.2358   | 0.1874   | 0.1596   |
| Finance                |          |          |          |          |          |          |          |
| 1. Barclays            | 0.0297   | 0.0496   | 0.0507   | 0.0521   | 0.0550   | 0.0449   | 0.0476   |
| 2. CFC                 | 0.0273   | 0.0323   | 0.0295   | 0.0262   | 0.0339   | 0.0313   | 0.0119   |
| 3. Housing             | 0.0091   | 0.0091   | 0.0093   | 0.0092   | 0.0155   | 0.0109   | 0.0142   |
| 4. Centum              | 0.1454   | 0.0711   | 0.1071   | 0.0914   | 0.1083   | 0.1408   | 0.1210   |
| 5. KCB                 | (0.0700) | 0.0139   | 0.0132   | 0.0249   | 0.0342   | 0.0351   | 0.0282   |
| 6. NBK                 | 0.0155   | 0.0190   | 0.0243   | 0.0264   | 0.0259   | 0.0389   | 0.0421   |
| 7. Pan Africa          | (0.0024) | (0.0251) | 0.0271   | 0.0474   | 0.0955   | 0.0315   | (0.0027) |
| 8. Diamond             | 0.0180   | 0.0235   | 0.0235   | 0.0260   | 0.0315   | 0.0293   | 0.0286   |
| 9. Jubilee             | 0.0322   | 0.0364   | 0.0369   | 0.0406   | 0.0419   | 0.0454   | 0.0446   |
| 10. Standard Chartered | 0.0521   | 0.0625   | 0.0401   | 0.0482   | 0.0470   | 0.0539   | 0.0477   |
| 11. NIC                | 0.0365   | 0.0327   | 0.0224   | 0.0206   | 0.0260   | 0.0336   | 0.0318   |
| Industrial             |          |          |          |          |          |          |          |
| 1. Athi River          | 0.0580   | 0.0833   | 0.0851   | 0.0914   | 0.0857   | 0.0977   | 0.1564   |
| 3. BAT                 | 0.2075   | 0.2639   | 0.2860   | 0.4411   | 0.3524   | 0.2211   | 0.2345   |
| 5. E.A. Cables         | (0.0139) | 0.0394   | 0.3633   | 0.2795   | 0.2216   | 0.1862   | 0.2201   |
| 6. E.A. Breweries      | 0.0188   | 4.6823   | 0.0502   | 0.3635   | 0.3461   | 0.3419   | 0.3704   |
| 7. Sameer              | 0.1220   | 0.1030   | 0.1341   | 0.0918   | (0.0045) | 0.0527   | 0.0538   |
| 9. Mumias              | 0.0110   | (0.0243) | 0.1245   | 0.1941   | 0.1870   | 0.1603   | 0.1123   |
| 10. Unga               | (0.0440) | (0.0045) | (0.0225) | 0.0400   | 0.0397   | 0.0421   | 0.1185   |
| 12. Crown              | 0.1070   | 0.1729   | 0.0669   | 0.0554   | 0.0524   | 0.0919   | 0.0399   |
| 13. E.A Portland       | 0.0287   | 0.0512   | (0.0524) | 0.1407   | 0.1021   | 0.1245   | 0.0789   |
| 14. KPLC               | (0.0909) | (0.1325) | 0.0271   | 0.0552   | 0.0645   | 0.0560   | 0.0458   |
| 15. Total              | 0.1170   | 0.0965   | 0.0883   | 0.0741   | 0.0441   | 0.0625   | 0.0710   |

| VALUES OF C= E | Earnings before | interest and taxes ( | (EBIT) | divided by | v total assets |
|----------------|-----------------|----------------------|--------|------------|----------------|
|----------------|-----------------|----------------------|--------|------------|----------------|

| 17. Kengen | 0.0342 | 0.0722 | 0.0328 | 0.0336 | 0.0574 | 0.0463 | 0.0152 |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            |        |        |        |        |        |        |        |

|                        | 2002     | 2003     | 2004    | 2005    | 2006     | 2007     | 2008     |
|------------------------|----------|----------|---------|---------|----------|----------|----------|
| Agriculture            |          |          |         |         |          |          |          |
| 1. Vipingo             | 1.5112   | 1.6812   | 2.6295  | 3.9266  | 4.3698   | 6.8550   | 2.7932   |
| 2. Sasini              | 2.2582   | 4.2839   | 3.0643  | 1.9482  | 6.0525   | 16.2518  | 2.9387   |
| 3. Kakuzi              | 0.9252   | 1.2674   | 1.7223  | 1.4159  | 1.8313   | 2.0931   | 2.1577   |
| Commercial             |          |          |         |         |          |          |          |
| 2. Marshalls           | (0.2147) | (0.0933) | 0.2270  | 0.7129  | 0.6515   | 0.8042   | (0.1360) |
| 3. Car & G             | 0.7900   | 1.4705   | 1.3225  | 1.9214  | 1.5999   | 1.6131   | 1.4152   |
| 5. Airways             | 0.8054   | 0.6927   | 0.9643  | 2.1294  | 1.9966   | 1.6422   | 1.3217   |
| 6. CMC                 | 1.6614   | 1.5068   | 1.3737  | 1.3332  | 1.3098   | 1.2189   | 1.9972   |
| 8. Nation              | 5.9358   | 9.2052   | 12.8519 | 13.3047 | 14.2317  | 11.5783  | 17.4582  |
| 9. TPS                 | 1.0932   | 0.9980   | 1.8132  | 0.8692  | 2.0387   | 2.3838   | 1.9871   |
| 11. Standard           | 2.5991   | 4.1039   | 2.7832  | 4.9147  | 5.6190   | 6.4554   | 4.7576   |
| Finance                |          |          |         |         |          |          |          |
| 1. Barclays            | 0.4891   | 0.7885   | 0.6626  | 0.7826  | 1.0489   | 0.8469   | 0.7768   |
| 2. CFC                 | 0.5328   | 0.6045   | 0.6112  | 0.5546  | 0.5961   | 1.5803   | 0.4603   |
| 3. Housing             | 0.2304   | 0.2942   | 0.3190  | 0.3885  | 0.7072   | 0.9999   | 1.0348   |
| 4. Centum              | 2.2126   | 2.1693   | 9.2701  | 8.3546  | 687.7535 | 315.6286 | 332.3982 |
| 5. KCB                 | (0.0198) | 0.3376   | 0.4451  | 0.5627  | 0.7134   | 0.6284   | 0.5264   |
| 6. NBK                 | (0.1107) | 0.0783   | 0.1436  | 0.3722  | 0.6684   | 0.7077   | 0.7703   |
| 7. Pan Africa          | 0.9263   | 1.0608   | 1.0340  | 1.5199  | 2.4186   | 1.8628   | 1.3480   |
| 8. Diamond             | 0.6277   | 0.6862   | 0.5589  | 0.4476  | 0.9067   | 0.7575   | 0.5530   |
| 9. Jubilee             | 1.4456   | 1.3010   | 0.8331  | 0.8494  | 1.2575   | 1.1812   | 0.8071   |
| 10. Standard Chartered | 0.4209   | 0.9352   | 0.6525  | 0.7571  | 0.8502   | 0.8141   | 0.7321   |
| 11. NIC                | 0.7952   | 0.8530   | 0.5788  | 0.4926  | 0.5470   | 0.6375   | 0.5082   |
| Industrial             |          |          |         |         |          |          |          |
| 1. Athi River          | 1.4515   | 3.4304   | 2.1387  | 2.6365  | 2.8683   | 3.0607   | 3.8935   |
| 3. BAT                 | 4.3458   | 10.5846  | 8.2561  | 7.5778  | 6.2057   | 4.8666   | 4.3957   |
| 5. E.A. Cables         | 2.3378   | 2.4887   | 4.2544  | 3.4559  | 3.2999   | 2.8289   | 2.8818   |
| 6. E.A. Breweries      | 3.8116   | 54.4916  | 9.7934  | 12.3485 | 11.7902  | 9.3129   | 9.8501   |
| 7. Sameer              | 5.6947   | 5.6589   | 12.5935 | 13.8035 | 9.4738   | 5.3286   | 3.8671   |
| 9. Mumias              | 1.3698   | 1.5720   | 2.9770  | 5.4021  | 21.4602  | 19.1239  | 9.3716   |
| 10. Unga               | 1.6427   | 2.3121   | 1.7592  | 2.8496  | 3.1667   | 3.3019   | 3.3343   |
| 12. Crown              | 3.0899   | 6.0901   | 3.1638  | 3.0621  | 2.9196   | 3.5907   | 2.4859   |
| 13. E.A Portland       | 0.8226   | 1.8529   | 1.2579  | 3.0485  | 3.0603   | 3.3671   | 2.8973   |
| 14. KPLC               | 0.2667   | (0.0214) | 1.0969  | 1.4225  | 1.8915   | 1.3931   | 1.0800   |
| 15. Total              | 4.3855   | 4.8708   | 5.0453  | 5.2404  | 3.3085   | 4.7025   | 4.7784   |

Z SCORE: Z= 1.2A+1.4B+3.3C+0.6D+1.0E for manufacturing firms and Z= 1.2A+1.4B+3.3C+0.6D for non-manufacturing firms

| 17. Kengen | 0.6035 | 0.8893 | 0.6608 | 0.6714 | 1.1767 | 2.2249 | 1.8614 |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            |        |        |        |        |        |        |        |

|                        | 2002   | 2003    | 2004   | 2005   | 2006   | 2007   | 2008    |
|------------------------|--------|---------|--------|--------|--------|--------|---------|
| Agriculture            |        |         |        |        |        |        |         |
| 1. Vipingo             | 0.8090 | 0.8262  | 0.8491 | 1.0566 | 1.1073 | 1.0569 | 0.8312  |
| 2. Sasini              | 0.3825 | 0.4484  | 0.2587 | 0.2706 | 0.3594 | 0.3465 | 0.2142  |
| 3. Kakuzi              | 0.3832 | 0.6661  | 0.6640 | 0.5381 | 0.6094 | 0.6370 | 0.6086  |
| Commercial             |        |         |        |        |        |        |         |
| 2. Marshalls           | 1.3763 | 1.7024  | 1.3006 | 1.2759 | 1.2033 | 1.0285 | 0.7393  |
| 3. Car & G             | 0.7550 | 0.8718  | 0.8481 | 0.9146 | 0.8696 | 0.9041 | 1.0897  |
| 5. Airways             | 1.1351 | 1.1013  | 0.9823 | 0.9423 | 0.7621 | 0.7607 | 0.7876  |
| 6. CMC                 | 1.0214 | 0.8638  | 0.9595 | 0.9660 | 0.9423 | 0.9655 | 0.9549  |
| 8. Nation              | 1.1356 | 1.1407  | 1.2017 | 1.2644 | 1.1979 | 1.3030 | 12.4725 |
| 9. TPS                 | 0.6831 | 0.6120  | 0.8141 | 0.6090 | 0.5317 | 0.5433 | 0.4984  |
| 11. Standard           | 1.7935 | 2.1140  | 1.8068 | 2.0250 | 2.2957 | 1.1834 | 1.0494  |
| Finance                |        |         |        |        |        |        |         |
| 1. Barclays            | 0.0905 | 0.0832  | 0.0736 | 0.0897 | 0.0886 | 0.0865 | 0.1058  |
| 2. CFC                 | 0.0805 | 0.0672  | 0.0486 | 0.0726 | 0.0749 | 0.0832 | 0.0522  |
| 3. Housing             | 0.2561 | 0.1893  | 0.1221 | 0.1038 | 0.1120 | 0.0946 | 0.0923  |
| 4. Centum              | 0.0728 | 0.0775  | 0.1090 | 0.0586 | 0.0628 | 0.0956 | 0.0714  |
| 5. KCB                 | 0.0793 | 0.1148  | 0.1133 | 0.1190 | 0.1247 | 0.1173 | 0.0896  |
| 6. NBK                 | 0.1299 | 0.1283  | 0.1055 | 0.1206 | 0.1315 | 0.0892 | 0.0886  |
| 7. Pan Africa          | 0.0401 | 0.2893  | 0.3178 | 0.3162 | 0.2939 | 0.3531 | 0.4119  |
| 8. Diamond             | 0.0875 | 0.0655  | 0.0638 | 0.0863 | 0.0887 | 0.0857 | 0.0836  |
| 9. Jubilee             | 0.0216 | 0.2594  | 0.2363 | 0.2590 | 0.2269 | 0.2369 | 0.2898  |
| 10. Standard Chartered | 0.0866 | 0.0690  | 0.0599 | 0.0765 | 0.0816 | 0.0766 | 0.0752  |
| 11. NIC                | 0.1051 | 0.0892  | 0.0642 | 0.0937 | 0.0908 | 0.0895 | 0.0804  |
| Industrial             |        |         |        |        |        |        |         |
| 1. Athi River          | 0.6437 | 0.7873  | 0.8092 | 0.6820 | 0.5758 | 0.6111 | 1.0255  |
| 3. BAT                 | 1.4924 | 1.4861  | 1.6114 | 2.4731 | 2.5567 | 1.7012 | 1.6916  |
| 5. E.A. Cables         | 1.1739 | 1.2038  | 1.6767 | 1.1044 | 1.0697 | 1.0786 | 1.2910  |
| 6. E.A. Breweries      | 1.5365 | 22.2852 | 1.4480 | 0.8480 | 0.8436 | 0.8317 | 0.9770  |
| 7. Sameer              | 1.0737 | 1.0223  | 1.0950 | 1.0482 | 0.9580 | 1.0972 | 0.9839  |
| 9. Mumias              | 0.8238 | 0.8505  | 1.0705 | 1.0613 | 0.9820 | 0.8658 | 0.8446  |
| 10. Unga               | 1.7802 | 1.5775  | 1.4823 | 1.9517 | 2.0350 | 2.0647 | 1.9848  |
| 12. Crown              | 1.2489 | 2.0908  | 1.1140 | 1.1459 | 1.1009 | 1.3697 | 1.2265  |
| 13. E.A Portland       | 0.4325 | 0.5145  | 0.5577 | 0.6949 | 0.6828 | 0.7163 | 0.7940  |
| 14. KPLC               | 0.5964 | 0.6183  | 0.6287 | 0.6071 | 0.5808 | 0.4924 | 0.3999  |
| 15. Total              | 2.6570 | 2.8395  | 3.5671 | 3.7637 | 2.4785 | 3.5252 | 3.7729  |

| 17. Kengen | 0.1672 | 0.1479 | 0.1213 | 0.1414 | 0.2207 | 0.1427 | 0.1504 |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            |        |        |        |        |        |        |        |

| VALUES OF D= Market Valu | 2002   | 2003    | 2004    | 2005    | 2006       | 2007     | 2008     |
|--------------------------|--------|---------|---------|---------|------------|----------|----------|
| Agriculture              |        |         |         |         |            |          |          |
| 1. Vipingo               | 0.4133 | 0.8978  | 1.3514  | 2.9508  | 3.5942     | 7.7225   | 1.4350   |
| 2. Sasini                | 1.4471 | 4.5297  | 1.3114  | 1.8032  | 6.9341     | 24.8606  | 1.8369   |
| 3. Kakuzi                | 0.2852 | 0.4221  | 0.7365  | 0.8402  | 0.6422     | 0.7628   | 0.5526   |
| Commercial               |        |         |         |         |            |          |          |
| 2. Marshalls             | 0.1431 | 0.1397  | 0.2303  | 0.4819  | 0.3999     | 0.7045   | 0.5960   |
| 3. Car & G               | 0.8475 | 1.0459  | 1.0188  | 0.9485  | 0.9533     | 0.9751   | 0.7091   |
| 5. Airways               | 0.4019 | 0.5045  | 0.8150  | 2.4592  | 2.2484     | 1.6443   | 1.0018   |
| 6. CMC                   | 1.1126 | 0.9001  | 0.7461  | 0.6568  | 0.4560     | 0.1732   | 1.4506   |
| 8. Nation                | 7.2152 | 12.3720 | 18.4322 | 18.9963 | 20.7468    | 16.0917  | 25.7801  |
| 9. TPS                   | 0.9219 | 1.0571  | 1.9205  | 1.0055  | 2.5701     | 3.1103   | 2.5672   |
| 11. Standard             | 5.2509 | 7.2276  | 4.4373  | 7.7747  | 7.6516     | 9.3273   | 6.5054   |
| Finance                  |        |         |         |         |            |          |          |
| 1. Barclays              | 0.2286 | 0.6359  | 0.4309  | 0.5657  | 0.9877     | 0.7513   | 0.5779   |
| 2. CFC                   | 0.1148 | 0.2676  | 0.3544  | 0.3800  | 0.3914     | 2.0416   | 0.2979   |
| 3. Housing               | 0.0521 | 0.1492  | 0.1218  | 0.1834  | 0.6022     | 1.1427   | 0.7355   |
| 4. Centum                | 1.5316 | 2.2653  | 14.0080 | 12.6301 | 1,144.8838 | 524.4039 | 552.2659 |
| 5. KCB                   | 0.0355 | 0.1497  | 0.2151  | 0.3265  | 0.5371     | 0.4452   | 0.2984   |
| 6. NBK                   | 0.0916 | 0.3365  | 0.3743  | 0.5863  | 1.0358     | 0.8725   | 0.8367   |
| 7. Pan Africa            | 1.1994 | 1.1272  | 0.7892  | 1.4135  | 2.6033     | 2.1878   | 1.7216   |
| 8. Diamond               | 0.2555 | 0.5056  | 0.3676  | 0.2673  | 0.9274     | 0.6881   | 0.4071   |
| 9. Jubilee               | 0.3342 | 1.0266  | 0.3155  | 0.3715  | 1.0555     | 0.9444   | 0.4659   |
| 10. Standard Chartered   | 0.1025 | 0.8657  | 0.5505  | 0.5952  | 0.7844     | 0.6951   | 0.6013   |
| 11. NIC                  | 0.2061 | 0.4360  | 0.2926  | 0.2306  | 0.3505     | 0.3804   | 0.2702   |
| Industrial               |        |         |         |         |            |          |          |
| 1. Athi River            | 0.7862 | 3.4722  | 1.4461  | 2.1244  | 3.0615     | 3.1617   | 3.1953   |
| 3. BAT                   | 2.4476 | 12.5903 | 8.6282  | 4.8420  | 3.0368     | 3.6053   | 2.8445   |
| 5. E.A. Cables           | 0.2180 | 0.2652  | 0.5711  | 0.6126  | 0.8196     | 0.9875   | 0.4087   |
| 6. E.A. Breweries        | 2.6719 | 12.2352 | 12.2686 | 15.6504 | 14.7229    | 10.9211  | 11.4928  |
| 7. Sameer                | 5.7345 | 5.8508  | 17.3166 | 19.6163 | 13.2145    | 6.1877   | 3.1034   |
| 9. Mumias                | 0.3899 | 0.5409  | 1.4176  | 4.9231  | 31.7961    | 28.1696  | 12.7419  |
| 10. Unga                 | 0.3319 | 0.9562  | 0.3810  | 0.8566  | 1.0247     | 1.0212   | 0.5719   |
| 12. Crown                | 0.5563 | 2.7980  | 1.4364  | 1.4376  | 1.3014     | 1.6941   | 0.7103   |
| 13. E.A Portland         | 0.2969 | 1.4612  | 1.0164  | 2.4776  | 2.7400     | 2.9896   | 2.2720   |
| 14. KPLC                 | 0.0430 | 0.1561  | 0.5604  | 0.7974  | 1.4472     | 0.9171   | 0.5665   |
| 15. Total                | 1.5133 | 2.0537  | 1.2874  | 1.3275  | 0.6248     | 0.9406   | 0.6257   |

VALUES OF D= Market value of preferred and common equity divided by total liabilities

| 17. Kengen | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.8518 | 1.3968 |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            |        |        |        |        |        |        |        |

| VALUES OF DE Relained  | rearnings divided | a by lotal asse |          |          |          |          |          |
|------------------------|-------------------|-----------------|----------|----------|----------|----------|----------|
|                        | 2002              | 2003            | 2004     | 2005     | 2006     | 2007     | 2008     |
| Agriculture            |                   |                 |          |          |          |          |          |
| 1. Vipingo             | 0.0896            | 0.1006          | 0.1636   | 0.2342   | 0.3350   | 0.3640   | 0.3338   |
| 2. Sasini              | 0.7054            | 0.7869          | 0.7193   | 0.7283   | 0.7673   | 0.6902   | 0.6426   |
| 3. Kakuzi              | 0.2583            | 0.3594          | 0.3912   | 0.3936   | 0.4117   | 0.4781   | 0.5144   |
| Commercial             |                   |                 |          |          |          |          |          |
| 2. Marshalls           | (0.0672)          | (0.0456)        | 0.0027   | 0.0597   | 0.0868   | 0.0999   | (0.1301) |
| 3. Car & G             | 0.1413            | 0.2331          | 0.2276   | 0.2870   | 0.3272   | 0.3088   | 0.3018   |
| 5. Airways             | 0.2290            | 0.2058          | 0.1961   | 0.2024   | 0.2006   | 0.2224   | 0.2638   |
| 6. CMC                 | 0.3377            | 0.3358          | 0.2944   | 0.3034   | 0.3307   | 0.3345   | 0.3187   |
| 8. Nation              | 0.5255            | 0.5020          | 0.5816   | 0.5842   | 0.4750   | 0.4839   | 0.5010   |
| 9. TPS                 | 0.1738            | 0.1791          | 0.2184   | 0.0942   | 0.1167   | 0.1454   | 0.1689   |
| 11. Standard           | (0.3002)          | (0.3788)        | (0.1976) | (0.1288) | 0.0209   | 0.0829   | 0.1354   |
| Finance                |                   |                 |          |          |          |          |          |
| 1. Barclays            | 0.0818            | 0.0761          | 0.0731   | 0.0855   | 0.0880   | 0.0816   | 0.0909   |
| 2. CFC                 | 0.0951            | 0.0773          | 0.0480   | 0.0578   | 0.0591   | 0.0609   | 0.0246   |
| 3. Housing             | 0.0366            | 0.0403          | 0.0523   | 0.0659   | 0.0818   | 0.0791   | 0.1715   |
| 4. Centum              | 0.5189            | 0.3981          | 0.3875   | 0.3399   | 0.3107   | 0.3435   | 0.4313   |
| 5. KCB                 | 0.0615            | 0.0651          | 0.0889   | 0.0931   | 0.0911   | 0.0814   | 0.0871   |
| 6. NBK                 | (0.2199)          | (0.2042)        | (0.1606) | (0.1324) | (0.1187) | (0.0629) | (0.0322) |
| 7. Pan Africa          | 0.1558            | 0.1448          | 0.1321   | 0.1521   | 0.1473   | 0.1195   | 0.0646   |
| 8. Diamond             | 0.1231            | 0.0869          | 0.0760   | 0.0574   | 0.0628   | 0.0466   | 0.0460   |
| 9. Jubilee             | 0.2018            | 0.1748          | 0.1666   | 0.1574   | 0.1454   | 0.1464   | 0.1358   |
| 10. Standard Chartered | 0.0547            | 0.0634          | 0.0582   | 0.0592   | 0.0531   | 0.0539   | 0.0533   |
| 11. NIC                | 0.1642            | 0.1445          | 0.0991   | 0.0889   | 0.0794   | 0.0834   | 0.0698   |
| Industrial             |                   |                 |          |          |          |          |          |
| 1. Athi River          | 0.0328            | 0.0975          | 0.1172   | 0.1282   | 0.1281   | 0.1487   | 0.3026   |
| 3. BAT                 | 0.3217            | 0.3117          | 0.2556   | 0.3703   | 0.3453   | 0.1532   | 0.1412   |
| 5. E.A. Cables         | 0.3119            | 0.2568          | 0.2943   | 0.2421   | 0.2079   | 0.1764   | 0.3149   |
| 6. E.A. Breweries      | 0.2457            | 3.4247          | 0.2921   | 0.3226   | 0.3618   | 0.2988   | 0.3160   |
| 7. Sameer              | 0.1964            | 0.2089          | 0.1558   | 0.1656   | 0.1536   | 0.1983   | 0.2529   |
| 9. Mumias              | 0.1287            | 0.2626          | 0.2945   | 0.3493   | 0.3836   | 0.4407   | 0.2935   |
| 10. Unga               | (0.1486)          | 0.1216          | 0.0864   | 0.1203   | 0.1479   | 0.1709   | 0.1875   |
| 12. Crown              | 0.4761            | 0.8191          | 0.4487   | 0.4006   | 0.4018   | 0.4401   | 0.3488   |
| 13. E.A Portland       | 0.0149            | 0.0568          | 0.0342   | 0.0593   | 0.0859   | 0.1524   | 0.2023   |
| 14. KPLC               | (0.0758)          | (0.1597)        | 0.0003   | 0.0395   | 0.0795   | 0.0967   | 0.1030   |
| 15. Total              | 0.1627            | 0.1403          | 0.1178   | 0.1646   | 0.1187   | 0.1525   | 0.1497   |

VALUES OF B= Retained earnings divided by total assets

| 17. Kengen | 0.2628 | 0.2839 | 0.2837 | 0.2851 | 0.4599 | 0.5616 | 0.5669 |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            |        |        |        |        |        |        |        |