

**FINANCIAL DISTRESS MANAGEMENT PRACTICES AND PERFORMANCE FOR  
LISTED COMPANIES AT NAIROBI SECURITY EXCHANGE.**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF  
BACHELOR OF COMMERCE IN FINANCE OF GREYSA UNIVERSITY**

**DECEMBER, 2023**

DECLARATION

Oliver Mafura do hereby declare that this project is my original work and to the best of my knowledge it has not been presented to any other University for similar purpose or for any other degree award.

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## ACKNOWLEDGEMENT

I would like to express my gratitude to God for granting me knowledge and wisdom to go about this project, my parents and uncle for unending support and my supervisor Dr. Kuya for his support and guidance in this research and lastly my friends for their support

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## ABSTRACT

Many companies in developing and transitioning economies are facing financial difficulties due to a low level of debt service coverage. The investigation of financial distress has emerged as a significant global concern following the global financial crisis in 2008. The current worldwide financial crisis has led to a rise in instances of business failures caused by bankruptcy and insolvency. The data for this study was collected from financial reports, libraries, and organizational records. The extracted data includes various measures such as current assets and liabilities, total assets, retained earnings, EBIT (earnings before interest and taxes), book value of equity, and sales. Uchumi, in particular, has experienced declining values, indicating that it is currently going through financial distress. This information should be available to investors so that they cannot be surprised by company's abrupt financial distress. We recommend investors to follow up every decision taken by business and follow its financial performance not only profit or debt but also the level of debt of a company.

## CHAPTER ONE: INTRODUCTION

### 1.1. Background Study

Organizations in African are facing financial difficulties because they lack knowledge in dealing with financial distress. Despite of early indication of financial distress they tend to ignore it which later comes to advance past their control. Financial distress is a situation where firm faces significant difficulties in meeting its financial obligation such as paying off debts or covering operating expenses. It is a state of financial instability that can potentially lead to insolvency and bankruptcy of a company. It has a severe consequence for their operations, employees, managers, community, shareholders and stakeholders. To manage it firm have to implement various strategies such as cost-cutting measures, restructuring debt, seeking additional financing, implementing turnaround plans, and changing management when the situation worsens. Financial distress can include both short –term obligations such as paying employees and suppliers, as well as long-term obligations like servicing investing in growth. Financial distress can arise due to various factors, such as declining sales, increasing expenses, excessive debt burden or economic downturns. It is a universal phenomenon that can affect companies of all sizes occurs in both prosperous and challenging economic conditions n a company faces severe financial difficulties, it can encounter serious outcomes like bankruptcy, corporate failure, or liquidation. Financial distress has a significant impact on a company's performance. It typically develops gradually and can be recognized through various indicators such as ongoing cash shortages, declining profit margins, reduced revenues, delayed payments, and failure to meet legal and contractual obligations. It is important to predict financial distress in order to implement appropriate measures to mitigate risks and rescue the company before it reaches a critical stage. Instead of solely focusing on the likelihood of bankruptcy, it is crucial to assess the potential losses that may arise from financial distress.

In the United States, corporate financial distress and its consequences became apparent during the 1970s, with significant revelations during recession years, the post-dotcom period, and the economic crisis between 1980 and 2003. During this period, there was an increase in the number of defaulters and a surge in interest rates, leading to 34 corporations filing for bankruptcy

protection. The collapse of 486 banks between 2009 and 2015 resulted in the loss of nearly \$75 billion in assets for the United States (Federal Deposit Insurance Corporation, 2015).

The financial crisis in East Asia in 1997 and 1998 caused severe financial distress, leading to large-scale corporate defaults within the region and beyond. Countries such as Thailand, Malaysia, South Korea, and the Philippines were particularly affected. Firms experiencing economy-wide or firm-level financial distress adopted mitigation measures such as liability restructuring, asset restructuring, mergers, and liquidation. The exogenous shocks caused by the financial crisis led to a deterioration in firm performance and the introduction of unfavourable government policies, which increased the negative correlation between financial distress and financial performance.

In Zimbabwe, the banking sector encountered financial challenges that resulted in the closure of six banks, and eleven were declared financially distressed. Depositors lost approximately \$52.3 million in the process (The African Report, 2014). Ghana also experienced corporate failures

affecting companies in various sectors such as aviation, textile, banking, and mining. The collapse of firms in the banking sector alone resulted in the loss of accumulated assets worth around \$38 million. Poor corporate governance practices, inability to meet liquidity and capital requirements, regulatory laxity, and fraud were among the reasons attributed to corporate failure.

There has been an increasing trend of companies listed at the Nairobi Securities Exchange (NSE) experiencing financial distress since Kenya's independence. Companies such as Kenya Meat Commission, Uchumi Supermarket, Webuye Paper Mills, Mumias Sugar Company, Tusky's, and Muhoroni Sugar Company have all faced corporate failure. These failures were attributed to problems related to solvency, profitability, and liquidity experienced by the firms.. Achieving and maintaining the ideal level of financial performance is a challenging task for financially distressed firms. Using leverage as a proxy for financial distress, it is evident that financial distress leads to underperformance, and this effect intensifies as the leverage levels of an organization increase, ultimately resulting in an economic downturn. Financial distress exposes companies to cash flow shortages and operational insolvency, increasing the risk of default. It also exposes firms to systematic risks arising from macroeconomic factors associated with financial distress that are not properly managed.



## **1.2 Financial Distress**

Financial distress occurs when a firm's operating cash flow is insufficient to cover its obligations, resulting in a situation where cash inflow does not meet cash outflow (Sloan, 1996). It represents unfavourable financial circumstances that can lead to failure, default, or bankruptcy. Yassin (2016) argues that firms experience financial distress if they exhibit the following characteristics for two consecutive years: negative earnings before interest, tax, depreciation, and amortization (EBITDA) and negative net income. Springate introduced S-score model, which is widely used to predict and measure financial distress. The model utilizes a combination of four ratios: earnings before taxes/ current liability, earnings before interest and tax/ total asset, working capital/ total asset and sales to total assets. Companies with a S-score of less than 0.862 are considered financially weak and distressed, those with a S-score higher than 0.862 are considered financially strong.

Various factors influence financial distress in firms, including liquidity, profitability and activity based. Liquidity levels can be assessed using metrics such as the quick ratio, current ratio, and capital ratio. The size of a firm determines its competitive advantage, and every organization aspires to expand its size. 2. Agency theory is a framework used to understand the relationship between different stakeholders within a company, particularly the principal-agent relationship. In the context of predicting financial distress, agency theory focuses on the potential conflicts of interest between the owners (principals) and managers (agents) of a firm. The theory assumes that managers, as agents, may act in their own self-interest, which can sometimes diverge from the best interests of the company's owners.

Financial distress refers to a situation where a company is unable to meet its financial obligations, such as debt payments, operational expenses, or other liabilities.

## **1.3 Financial Performance**

Refers to parameters used by firms to measure the milestone of the achievement of strategic financial objectives. The productivity, profitability and market premium have 3 perspectives to evaluate financial performance (Mullah 2015). Operating income, ROA net profit margin, sale growth, cash flow, ROI and ROE are accounting measure that financial performance of

organizations. This study therefore uses return on equity to measure the financial performance of Agriculture listed companies in NSE. Instruments used to measure financial performance include; income statement, statement of financial position and cash flow

#### **1.4 Statement of the Problem**

Financial health and sustainability that ensures most organization overcome their financial obligation (Burch, . (2013).). However financial distress makes it difficult for many supermarkets to achieve their goals. Therefore, it is very important to deal with financial distress management. Many managers of organizations focus on short run of the firm which make them not to last long. Several studies have been carried out on financial distress on financial performance in Kenya.

For instance, Waweru evaluate how the 3 financial factors influence the financial performance of listed companies in NSE in Kenya. This study looks onto financial distress factor such as liquidity, profitability and activity based. The study covered period between 2018 to 2022 and used descriptive research design. Mostly this agriculture listed companies was affected by high debts hence it cannot pay it obligations. Furthermore, the study investigated the effect of financial distress on listed companies in NSE. This study therefore uses return on equity to measure the financial performance of supermarkets in Kenya. Instruments used to measure financial performance include; income statement, statement of financial position and cash flow.

#### **1.5 General Objective**

General objective of this study is examine financial distress and financial performance practices in listed companies at Nairobi Securities Exchange in Kenya.

#### **1.6 Specific Objectives**

- i. To determine the effect of liquidity on financial performance distress on Agriculture listed firms in NSE.
- ii. To examine effect of profitability on financial performance distress Agriculture listed companies in NSE.
- iii. To investigate the effect of activity based to financial performance of distress listed Agriculture firms in NSE.

### **1.7. Research Question**

The following are the research question that addressed by the current research.

1. What is the effect of liquidity in financial performance and practices?
2. What is the effect of profitability on financial performance?
3. What is the relationship between activities based of financial performance on listed agriculture firms?

### **1.8. Significance of the Study**

This information will be useful to the following people;

#### **1.8.1. Financial Practitioners**

The outcome of this study will give raise awareness among financial practitioners responsible of making financial decision. It will provide them with crucial reference to understand the importance for companies to establish and sustain an ideal financial structure, which helps to protect firms from financial distress. This approach not only maximizes wealthy of shareholders but also enhances investors' confidence in the company.

#### **1.8.2 Academicians and Researchers**

This study will act as a point of reference by future researchers and those who may want to develop it further and also make correction on the same time.

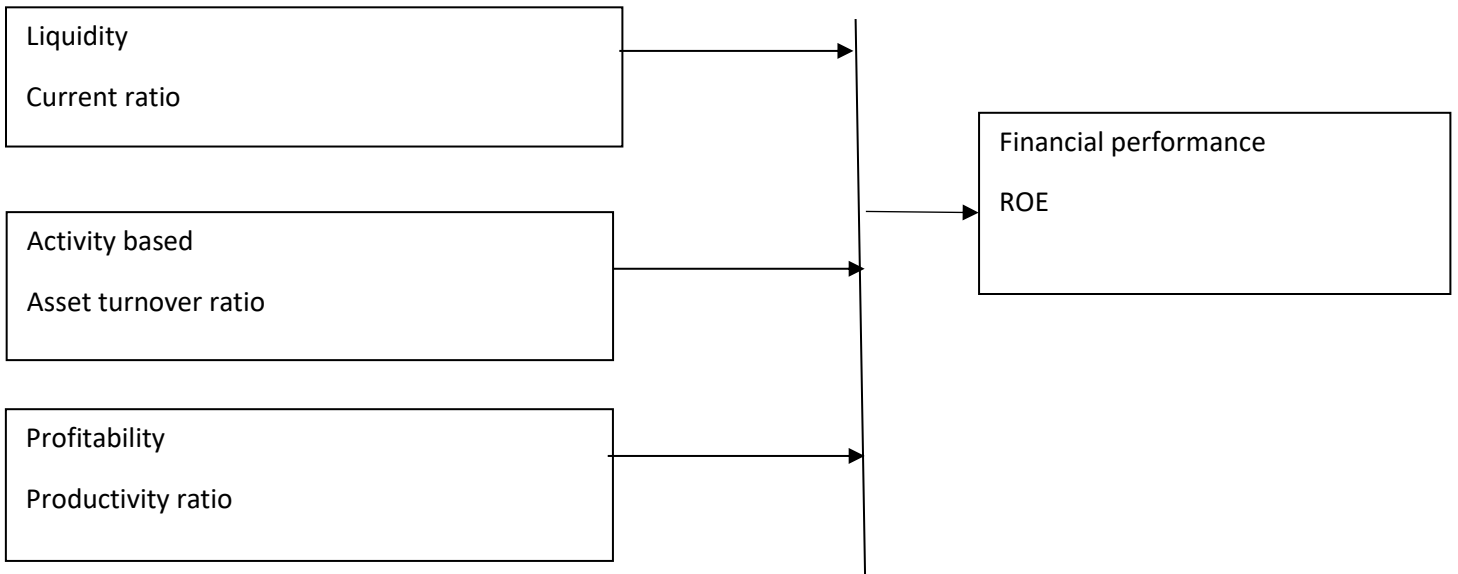
#### **1.8.3 Government of Kenya**

Research will assist the government of Kenya to understand how financial distress impact on finance performance and thus formulate and implement policies and regulations that will safeguard company's firm's liquidity and also improving their performance in order to make economy remain stable and grow.

## 1.9 Conceptual Framework

Independent variables

Dependent variable



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 INTRODUCTION**

This chapter outlines various aspects of research as shown in conceptual framework testing both theoretical and empirical literature related to financial distress management and performance

### **2.1. Theoretical Review**

According to this approach, prediction models are developed using theoretical arguments. These theories enable the prediction of financial distress in companies by examining the distress conditions that exist within the firms. These theories are: Cash flow theory, Modigliani Miller theory and Gamblers theory

### **2.2. Agency Theory**

Agency theory predicts that certain agency problems can contribute to financial distress. These agency problems may include; Risk-taking incentives – this is where Managers may take on excessively risky projects or investments to increase their chances of gaining personal rewards (such as performance bonuses or stock options), even if these actions could jeopardize the company's financial stability in the long run.

There is also short-term focus, where Managers might prioritize short-term financial performance to maximize their own compensation, possibly at the expense of the company's long-term sustainability and resilience. This could lead to neglecting necessary investments in research, development, and infrastructures.

This theory states that there is also information asymmetric between managers and owners which can create opportunities for opportunistic behaviour by managers. They may withhold negative or crucial information from the owners, hiding the true financial health of the company size and prestige of the company, which can enhance their personal status and power Empire building: Managers might pursue projects or acquisitions that increase the, even if such moves are financially unwise for the firm.

Furthermore, this theory talks about dividend policies where Managers may influence dividend policies to ensure higher dividends for shareholders, often as a means to maintain or increase the company's stock price. This could lead to the neglect of internal investments and capital preservation, potentially leading to financial distress. Moreover, this agency theory talks about

agency of costs, the costs associated with monitoring and controlling managers' actions can reduce the funds available for reinvestment or debt repayment, leaving the company more vulnerable to financial distress.

To mitigate the risks of financial distress arising from agency problems, there are several corporate governance mechanisms are often employed. These include: Effective board oversight: An independent and active board of directors can monitor managerial actions, review strategic decisions, and ensure that the interests of shareholders are protected.

Executive compensation alignment: Designing executive compensation packages that align managers' incentives with the long-term interests of the company can reduce short-termism and excessive risk-taking.

Transparency and disclosure: Providing transparent and timely financial information to shareholders can reduce information asymmetry and increase trust between managers and owners.

Debt covenants: Lenders may impose certain financial and operational restrictions on the company through debt covenants, aiming to safeguard their interests and limit risky behaviour.

By understanding and addressing agency problems, agency theory helps in predicting and mitigating the likelihood of financial distress in companies. However, it is essential to remember that financial distress is a complex phenomenon influenced by various internal and external factors, and no single theory can fully explain or predict it.

### **2.3 Modigliani-Mille Theory**

This theory was developed by Franco Modigliani and Merton Miller in the year 1958. The theory states that investment means have no contribution to change in firm's value due to ever present market imperfect Isa (Acemoglu, 1999).). It also states that market value of a firm is correctly calculated as present value of its future earnings and its underlying assets. At its basic level, the theorem argues that, with certain assumptions in place it is irrelevant whether a company finances its growth by borrowing issuing stock shares or by re-investing its profit. It continues by stating under conditions of perfect capital markets the cost of investment to firm is the same

regardless of which method of finance it chooses (Corpataux, (2009). ). These are: they can borrow by issuing bonds or obtaining loans and also has an option to raise an additional fund by issuing new shares to investors, these allows them to generate profits through their operations and expand their capital base by selling ownership stakes at interested individual or entities (Jane 2017). It claims that firms real market value is unaffected by the choice or combination of options it chooses. Hence in this study the theory describes financial leverage on financial performance in firms. (Edvardsson, . (2019). I) An increase in leverage level induces higher default probability to a company. As a result, investors typically expect higher return on their investment in a form of a higher cost of equity. (Stein, (1996). ).

## **2.4 Behavioral Finance Theory**

Behavioral finance theory can provide valuable insights when measuring financial distress, as it considers how psychological and emotional factors influence financial decision-making. Traditional financial models often assume that investors and market participants are perfectly rational, but behavioral finance recognizes that individuals are subject to cognitive biases and emotions that can impact their choices and perceptions of financial risk.

When it comes to measuring financial distress through the lens of behavioral finance, several aspects are worth considering:

**Overconfidence:** Behavioral finance suggests that individuals tend to be overconfident in their abilities, leading them to underestimate the probability of financial distress. This overconfidence might result in aggressive investment strategies or excessive risk-taking, making the company more susceptible to financial troubles.

**Loss Aversion:** Investors and managers often exhibit a higher sensitivity to losses than gains, known as loss aversion. In the context of financial distress, this can lead to a reluctance to recognize and address early signs of trouble, as acknowledging losses can be emotionally painful. Consequently, necessary corrective actions may be delayed, exacerbating the financial distress. **Herding Behavior:** Investors often imitate the actions of others, following the herd mentality. In times of financial distress, this behavior can lead to a rapid decline in the company's stock price as investors quickly sell their shares due to fear of further losses, creating a self-reinforcing cycle of negative sentiment.

**Anchoring Bias:** Anchoring bias occurs when individuals rely too heavily on initial pieces of information when making subsequent decisions. During financial distress, stakeholders may anchor their expectations to past performance, leading them to underestimate the severity of the current financial problems.

**Availability Bias:** This bias occurs when individuals heavily weigh information that is readily available to them, often from recent events or prominent news. If negative news dominates the media during financial distress, investors and managers may overreact and overlook potentially relevant positive information.

**Mental Accounting:** Behavioral finance recognizes that people often categorize their money into mental accounts, and this can affect financial decision-making. For instance, managers may treat different sources of financing differently, leading to suboptimal allocation of resources during financial distress.

To measure financial distress using behavioral finance principles, analysts and researchers may use various approaches, such as sentiment analysis of news and social media to gauge investor sentiment, monitoring market volatility to identify panic-driven behaviors, and studying trading patterns to detect herding behavior. Additionally, surveys and interviews with stakeholders can provide insights into their emotional responses and cognitive biases during times of financial distress.

By incorporating behavioral finance insights, analysts can gain a deeper understanding of how market participants' psychological tendencies and biases influence financial distress. This awareness can lead to more robust risk assessments and potentially improved measures to prevent or mitigate the adverse effects of financial distress on companies and their stakeholders.

## **2.5 Liquidity Management practices and Financial Performance**

Liquidity can be useful measure of financial distress for companies listed in NSE in Kenya as it indicates the company's ability to meet its short-term financial obligation and remain solvent. Some of the ways that can be used to measure financial distress includes; Current ratio, it is the ability of a company to pay its short term debts using current asset. A low current ratio can indicate that agriculture listed companies may struggle to meet its short-term financial obligation which be sign of financial distress (Parejo 2019). Quick ratio/acid ratio is a measure of company



ability to pay its short-term debt using its most liquid assets such as cash and marketable securities. Statistics shows that Chirr (2014) suffered a low quick ratio which indicated that it was struggling to meet its short-term financial obligations. Cash Ratio it measures the company's ability to pay off short term obligations with its cash and cash equivalent (Lapo 2020). This ratio is more conservative measure than other ratios because it measures only cash and cash equivalent.

## **2.6 Profitability Management Practices and Financial Performance**

Profitability is indeed an essential measure of financial performance for any business or organization. It assesses how efficiently a company generates profits relative to its expenses and revenue. It is a key indicator of the company's overall financial health and its ability to sustain operations and growth over time.

There are various metrics used to evaluate profitability, and some of the common ones include:

**Gross Profit Margin:** It is the percentage of revenue that exceeds the cost of goods sold (COGS). A high gross profit margin indicates that a company is effectively managing its production costs.

**Operating Profit Margin:** This metric represents the proportion of revenue that remains after subtracting both COGS and operating expenses (e.g., selling, general, and administrative expenses). It reveals the company's profitability from its core business operations.

**Net Profit Margin:** It measures the percentage of revenue that remains as profit after deducting all expenses, including taxes and interest. This metric gives a comprehensive view of the company's overall profitability.

**Return on Assets (ROA):** ROA calculates how efficiently a company utilizes its assets to generate profits. It indicates the profit earned per dollar of assets.

**Return on Equity (ROE):** ROE evaluates how effectively a company utilizes shareholders' equity to generate profits. It represents the return earned per dollar of shareholders' equity.

**Earnings per Share (EPS):** EPS measures the company's profitability on a per-share basis. It is often used by investors to assess a company's profitability relative to its stock price.

**Operating Income or Earnings (EBIT and EBITDA):** These metrics represent a company's earnings before interest, taxes, depreciation, and amortization. They provide insights into the company's operational profitability, excluding non-operational factors.

**Profit Margin Ratios:** These ratios compare

various profit margins to assess the company's performance over time or relative to its competitors.

It's important to note that while profitability is crucial, it should be considered in conjunction with other financial metrics to gain a comprehensive understanding of a company's performance. Additionally, different industries may have varying levels of profitability due to their nature and market conditions. Therefore, it's essential to compare a company's profitability to industry peers and historical performance for a more informed analysis.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

In this chapter it outlines the methodology and the procedure that was used for gathering information and data analysis. The chapter also describes research design, target population, sampling design and procedures.

### **3.2 Research Design**

It is blueprint or plan specifically created to answer research questions and control variance. Research design is preferred in research caused it generates an opportunity to researcher to compare and relate variables of study with related theories that exist in the research. It uses descriptive research method. As stated by Alma (2015) ,descriptive research method focuses on providing descriptive and summarization of the characteristic , behavior or phenomena associated with specific population or the phenomenon .It aims at providing a detailed and accurate portrayal of what is being studied .Descriptive research design was used to current study because it study in which quantity information was gathered and summarized in order to explain specific even in its current trend , events and connect between various factors at current time (Josh 2017). . This study sought to examine the relationship between financial distress factors (liquidity, profitability and activity based) and financial performance of firms listed in Nairobi Securities Exchange.

### **3.3 Population and Sampling Design**

Target population of this study involves listed agriculture companies in NSE Kenya that have face financial distress. These Williamsons, Sasini, Rea Vipingo, Limuru, Kapchorua, Kakuzi, and Eaagads limited. The data will be useful to government so that it can decide on its planning and strategies of taxation, investors so that they can invest in the organization, debtors also need the information to decide whether to lend the organization and lastly stakeholders also need the information to make decision about the organization (Mahesh 2020).

### **3.4 Data Collection Methods.**

The study will use secondary data to collect information. Secondary data is collected data by someone else other than the one using it Omar (2014). It comes from various sources such as journals, social media, census and books. Secondary data will be obtaining through financial statement and statistics of Kenya n supermarkets since 2013 to 2019. Financial leverage is`.

While liquidity is also calculated by  $\text{=current asset/ current liability}$ . Profitability is calculated  $\text{=net profit/average equity}$ .

### **3.5 Data Analysis**

Arthur and Rijal (2016) defined data analysis as the systematic examination, purification and conservation of data to reveal valuable insights, draw inferences and facilitate decision making. This process utilizes the package to efficiently analyze the data. The study used various ratios (liquidity, profitability, leverage and activity ratio) to predict financial distress. The regression method was selected because it allows for assessment of the impact of one or more predictor variables to criterion values (Steve 2016). The regression model's functional form is expressed as follows;

$$Y=1.03A+3.07B+0.66C+0.4D$$

Y=Financial distress

A=Working capital/Total asset

B=EBIT/Total asset

C=EBIT/Current liability

D=Sales/Total asset

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter presents the findings emanated from analysis of secondary data relating to financial distress. Descriptive statistics is used to examine financial distress among Agriculture listed companies in NSE. Variables are quantitative and are as the published financial statements of these Agriculture companies.

The table: show variables predicting financial distress.

WORKING CAPITAL
TOTAL ASSET
EBIT
EBT
SALES
S-SCORES

### 4.2 Descriptive Statistics

In this section the results of descriptive analysis are presented alongside pertinent interpretations discussion. It involves measure of central tendencies represented by; mean, median, mode and also measures of variations or dispersion characterized by standard deviation. The choice of this statistics is found on the fact that data is collected and analyzed continuously. The descriptive analysis in respect of financial ratios and financial distress for the 7 agriculture listed companies are explained and presented below

#### 4.2.1 Working Capital to Total Asset Ratio

The study analyses working capital against total asset for agriculture firms listed on NSE for a period of 2018 to 2022. The average of financial ratios indicators over the duration is shown in

the table The study indicates the highest average working capital/total asset ratio (mean =0.502) which is recorded by Limuru Tea limited, followed by Rea Vipingo with(mean=0.448). In terms of median, Limuru Tea ltd has the highest average median working capital /total asset( median=0.51) followed by Rea Vipingo(median=0.48). On the other hand, Eaagad is the one with the least (mean=0.0968) and the one with least median also.

The 7 agriculture listed firms shows most of them has a mean of working capital/total asset ratio >0.2. In terms of stability Rea Vipingo is found to be experiencing largest fluctuation in its working capital/total asset ratio (std. dev=0.05) while Kapchorua is established as the most stable (std.dev=0.022). Limuru records the highest financial ratio which implies that in comparison to other listed firms its working capital is almost higher than total assets. The higher the working capital/total asset ratio implies relative poor performance by the firm a factor that is likely to cause its delisting from NSE. This shows that for every 100 units of a company's total assets,50.2 units were part of working capital. On the other hand, Eaagads records (mean=0.0968) in working capital/total asset ratio, which means that in every 100 units of the company's total asset, only 9.68 units constitutes of working capital. It is highly predicted that Limuru ltd is more prone to experience financial distress than other agriculture listed companies whereas Eaagad is the least likely to suffer from financial distress.

Descriptive statistics of working capital to total asset ratio

	Mean	Median	Mode	Standard dev
Williamsons	0.227	0.21	0.2	0.0278
Sasini	0.135	0.11	0.1	0.0287
Rea Vipingo	0.448	0.44	0.4	0.0344
Limuru	0.502	0.51	0.5	0.0458

Kapchorua	0.334	0.36	0.3	0.0201
Kakuzi	0.372	0.38	0.3	0.0306
Eaagads	0.0970.21	0.06	0.08	0.0346

#### 4.2.2 EBIT to Total Asset Ratio

The study evaluates the ratio of EBIT to total asset owned by agriculture companies listed in NSE. The study reveals some listed companies have negative EBIT to total asset ratio. This time round Rea Vipingo a highest ratio with a (mean=0.302). This means that every 100 units of total asset, there is 30.2 unit of EBIT. This shows that a relative large ratio is attributed by minimal total asset held by a company. Limuru limited recorded a negative ratio of (-0.015) due to more losses incurred. Kapchorua recorded a highest standard deviation of (0.171) among the 7 listed companies. This indicates that the foregone ratio in respect of this firm fluctuates significantly. On the other hand, Limuru recorded lowest mean (-0.015) which means that a firm has the least EBIT/total asset. And Williamson recorded the lowest recorded the lowest variation in respect to EBIT/T.A (std.dev=0.00218). This shows that Williamson is the most stable regarding the fore stated financial ratio while Limuru is the most unstable firm out of the 7 listed companies.

#### EBIT to T.A ratio

	Mean	Median	Mode	Standard dev
Williamson	0.072	0.049	0.04	0.0178
Sasini	0.06674	0.056	0.06	0.0312
Rea Vipingo	0.448	0.28	0.3	0.0389
Limuru	-0.0146	-0.063	-0.02	0.0520
Kapchorua	0.86	0.0028	0.3	0.0256
Kakuzi	0.224	0.22	0.2	0.0376

Eaagads	0.014	0.039	0.04	0.0388
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### 4.2.3 EBIT to Current Liability

Computing EBT (Earnings before Taxes) divided by current liability illustrates the ability of a company to cover its current liabilities with its operating earnings before taxes. It is a measure of a company's liquidity and financial strength.

When the result of EBT / current liability is less than one, it indicates that the company's current liabilities exceed its earnings before taxes. This situation suggests that the company may face difficulty in meeting its short-term obligations using its operating earnings alone. In such cases, the company may need to rely on other sources of funds, such as borrowing or issuing more equity, to cover its current liabilities. This could potentially be a sign of financial strain or an indication of low profitability relative to its short-term obligations.

In this research Kakuzi is found to have largest (mean=2.316) followed by Rea Vipingo at close range while on the other hand, Williamson recorded the lowest (mean=0.486). Kakuzi limited again recorded the highest median (1.75) followed in close range by Rea Vipingo (1.49). While Limuru recorded a negative median of (-0.081).

	Mean	Median	Mode	Standard dev
Williamson	0.486	0.31	0.1	0.0182
Sasini	1.173	0.11	1.4	0.0215
Rea Vipingo	2.034	1.49	0.01	0.0369
Limuru	0.614	-0.08	0.01	0.0412
Kapchorua	0.741	0.68	1.6	0.0157
Kakuzi	2.316	1.75	1.7	0.0317
Eaagads	1.20001	0.31	0.2	0.0286



#### 4.2.4 Sales to Total Asset Ratio

The study further examines ratio of total sales made against their total assets. It aims to determine companies which records highest growth in sales in respect to their T.A. A firm with a higher ratio implies that it encourages growth rate given that sales parameters of an organization growth. The results are shown in the table below ( ). The largest ratio is recorded by Kapchorua firm with a (mean =0.644). The median ratio is recorded in two firm both Kapchorua and Rea Vipigo with a ratio of (median=0.6). Eaagads records a largest average ratio (mean=0.115). These findings show that at Kapchorua for every 100 units of T.A, there is 64.4 units of sales. This show average annual sales turnover for the company is higher than total asset. In normal firm, the foregoing results do not reflect a positive image of the company from financial perspective granted that, ordinarily T.A which includes plant and equipment's, inventory among others are expected to be much more than sales turnover. On the other hand, for every 100 units of total asset, firm realizes 11.5 units of sales. Though sales are a manifest of the firm's performance, while T.A guarantees to large extend financial performance as well as company's position. Therefore, Eaagads is more likely to have better financial performance than other agriculture listed companies

	Mean	Median	Mode	Standard dev
Williamsons	0.422	0.39	0.4	
Sasini	0.305	0.28	0.2	
Rea Vipingo	0.638	0.60	0.6	
Limuru	0.432	0.42	0.4	
Kapchorua	0.644	0.60	0.6	
Kakuzi	0.514	0.52	0.5	
Eaagads	0.115	0.05	0.1	

#### **4.2.5 Financially Distress Firms**

Williamson (S-Score: 0.944):

Williamson's S-Score of 0.944 suggests a relatively low risk of financial distress over the next two years. The score is below 1.8, which is a threshold often used to indicate potential financial distress. However, it's essential to monitor the company's financial health regularly and consider other factors not captured by the S-Score model.

Sasini (S-Score: 1.23): Sasini's S-Score of 1.23 also indicates a relatively low risk of financial distress. The score is above 1 but below the 1.8 threshold, suggesting the company is in a stable financial condition. However, it's still advisable to keep an eye on any changes in the company's financial performance.

Limuru (S-Score: 1.27): Similarly, Limuru's S-Score of 1.27 suggests a low risk of financial distress. The score is above 1 but below 1.8, indicating the company's financial health is relatively stable. Nonetheless, continued monitoring of financial indicators is essential.

Kapchorua (S-Score: 1.42): Kapchorua's S-Score of 1.42 also indicates a low risk of financial distress. The score is slightly above 1, further supporting the view that the company is in a stable financial position.

Kakuzi (S-Score: 2.85): Kakuzi's S-Score of 2.85 suggests a higher risk of financial distress compared to the other companies. The score is well above 1.8, which may indicate some financial vulnerability. This warrants a closer examination of the company's financial statements and factors contributing to the high S-Score.

Eaagads (S-Score: 1.06): Eaagads' S-Score of 1.06 indicates a relatively low risk of financial distress. The score is above 1 but below the threshold of 1.8, suggesting the company is in a stable financial position.

In general Rea Vipingo emerges with highest mean of(2.99) and followed closely by Kakuzi limited with(2.85) which means they are more stable than others hence cannot experience financial distress in next 2 or more years.

	Mean	Median	Mode	Standard dev
Williamson	0.94	0.64	0.64	0.11
Sasin	1.23	0.48	1.13	0.13
Rea Vipingo	2.99	2.58	2.58	0.21
Limuru	1.27	1.15	1.68	0.13
<b>REGRESSION</b>				
Kapchorua	1.42	0.74	1.15	1.14
/MISSING LISTWISE				
Kakuzi	2.85	1.49	2.18	1.23
/STATISTICS COEFF OUTS R ANOVA				
Eaagad	1.06	1.23	0.45	0.12
/CRITERIA=PIN (.05) POUT(.10)				
/NOORIGIN				
/DEPENDENT R.O.E				
/METHOD=ENTER A B C D.				

### 4.3 Regression

The goal of the analysis is to predict the dependent variable "R.O. E" (Return on Equity) based on the independent variables "D," "C," "B," and "A." Here's a brief analysis of the information provided: Variables Entered/Removed: The data shows that all four variables, "D," "C," "B," and "A," were entered into the regression model, and none of them were removed during the analysis

The model summary provides some key statistics to assess the performance of the regression model:

R: The multiple correlation coefficient, also known as the multiple R, measures the strength and direction of the relationship between the independent variables and the dependent variable. In this case, it is 0.404.

R Square: The coefficient of determination, also known as R-squared, indicates the proportion of variance in the dependent variable that is predictable from the independent variables. It is a measure of the goodness of fit of the model. In this case, the R-squared value is 0.163, which means approximately 16.3% of the variance in "R.O. E" can be explained by the variables "D," "C," "B," and "A." Adjusted R Square: The adjusted R-squared accounts for the number of predictors in the model and adjusts the R-squared value accordingly. It penalizes the inclusion of irrelevant or redundant predictors, making it a more conservative measure of goodness of fit. In this case, the adjusted R-squared is 0.052.

Std. Error of the Estimate: This is a measure of the model's accuracy in predicting the dependent variable. It indicates the average distance between the actual values of "R.O. E" and the predicted values by the model. A smaller value indicates a better fit. Here, the standard error of the estimate is 2.03299.

Interpretation: The regression model explains around 16.3% of the variance in "R.O. E," which suggests that the included independent variables ("D," "C," "B," and "A") are not strongly predictive of the dependent variable. The adjusted R-squared is even lower (0.052) after accounting for the number of predictors, indicating that the model might not be a great fit for the data. Explore transformations: Sometimes transforming the variables or using interaction terms can improve the model's fit. Consider other regression models: Depending on the nature of the data and the relationship between variables, alternative regression models (e.g., nonlinear regression, polynomial regression) might be more suitable.

Keep in mind that without access to the raw data and additional information, a more detailed analysis cannot be provided. It's always essential to thoroughly understand the context and assumptions of the data before drawing conclusions from a regression analysis.

### **Variables Entered/Removed**

Model	Variables Entered	Variables Removed	Method
1	D, C, B, A <sup>b</sup>	.	Enter

a. Dependent Variable: R.O.E

b. All requested variables entered.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404 <sup>a</sup>	.163	.052	2.03299

a. Predictors: (Constant), D, C, B, A

### 4.4 Anova

The ANOVA table is used to assess the overall significance of the regression model and its individual predictors. It decomposes the total variation in the dependent variable into two components: the variation explained by the regression model (Regression) and the unexplained variation or residual error (Residual).

Regression: Sum of Squares: The sum of squared differences between the predicted values and the mean of the dependent variable. df (Degrees of Freedom): The number of predictors plus the constant term (intercept) in the model. Here, it is 4, representing the independent variables "D," "C," "B," and "A," plus the constant term.

Mean Square: The sum of squares divided by its corresponding degrees of freedom. It represents the average amount of variation explained by each predictor.

F: The F-statistic is used to test the overall significance of the regression model. It compares the variation explained by the model to the unexplained variation (residuals). Here, the F-value is 1.464.

Residual: Sum of Squares: The sum of squared differences between the actual values of the dependent variable and the predicted values from the regression model.

df (Degrees of Freedom): The total number of observations minus the number of predictors and the constant term in the model. Here, it is 30 (34 - 4).

Mean Square: The sum of squares divided by its corresponding degrees of freedom. It represents the average amount of unexplained variation in the model.

Total: Sum of Squares: The total variation in the dependent variable.

df (Degrees of Freedom): The total number of observations minus 1. Here, it is 34 (total number of observations).

Interpretation:

The ANOVA table suggests that the regression model as a whole is not statistically significant. The F-value of 1.464 with a corresponding p-value (Sig.) of 0.238 indicates that the variation explained by the model is not significantly different from the unexplained variation. In other words, the independent variables "D," "C," "B," and "A" together do not have a strong overall effect on predicting the "R.O.E."

Furthermore, the individual significance of the predictors (variables "D," "C," "B," and "A") is not shown in this summary. To determine the significance of each predictor, you would need to look at their respective t-statistics and p-values.

In conclusion, the current regression model does not appear to be a good fit for the data, and the included predictors do not have a strong overall effect on predicting the "R.O.E." Further analysis and model improvement may be required to draw more meaningful conclusion.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.198	4	6.049	1.464	.238 <sup>b</sup>
	Residual	123.992	30	4.133		
	Total	148.190	34			

a. Dependent Variable: R.O.E

b. Predictors: (Constant), D, C, B, A

#### 4.5 Coefficients

The goal of the analysis seems to be predicting the dependent variable "R.O. E" (Return on Equity) based on the independent variables "A," "B," "C," and "D." Here's a brief analysis of the coefficients and correlations:

Coefficients Table: The coefficients table shows the estimated coefficients for each predictor variable in the multiple linear regression models. It provides information about the strength, direction, and statistical significance of the relationships between the independent variables and the dependent variable.

Constant: The coefficient of the constant term (intercept) is 19.506. This represents the predicted value of the dependent variable when all the predictor variables are zero.

A: The coefficient for variable "A" is -6.992. A negative coefficient indicates that an increase in "A" is associated with a decrease in the dependent variable "R.O.E." The coefficient is statistically significant at a significance level of 0.051 ( $p = 0.051$ ).

B: The coefficient for variable "B" is -3.744. Similar to variable "A," a negative coefficient suggests that an increase in "B" is associated with a decrease in "R.O.E." However, the coefficient is not statistically significant ( $p = 0.387$ ).

C: The coefficient for variable "C" is -0.156. Again, it is negative, indicating that an increase in "C" is associated with a decrease in "R.O.E." However, like variable "B," the coefficient is not statistically significant ( $p = 0.651$ ).

D: The coefficient for variable "D" is 5.450. Here, a positive coefficient suggests that an increase

**Coefficients**

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	19.506	.995		19.597	.000
	A	-6.992	3.447	-.497	-2.029	.051
	B	-3.744	4.270	-.207	-.877	.387
	C	-.156	.341	-.089	-.457	.651
	D	5.450	3.225	.479	1.690	.101

a. Dependent Variable: R.O.E

in "D" is associated with an increase in "R.O.E." The coefficient is not statistically significant

, but it is close to the significance level ( $p = 0.101$ ).

**CORRELATIONS**

```

/VARIABLES=A B C D R.O.E
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

```

**4.6 Correlations**

Correlations

The correlation matrix provides insights into the relationships between all the variables involved in the analysis. It shows the pairwise correlation coefficients between variables "A," "B," "C," "D," and "R.O.E."



Interpretation: The coefficient analysis indicates that only the variable "A" is potentially significant in predicting "R.O.E." It has a statistically significant negative relationship with the dependent variable, suggesting that as "A" increases, "R.O. E" tends to decrease. However, the significance level is relatively close to the conventional threshold ( $p = 0.051$ ), so further investigation may be needed. Variables "B," "C," and "D" do not appear to have statistically significant relationships with "R.O. E" in this analysis.

The correlations in the correlation matrix can help understand the pairwise relationships between variables. Positive correlations between variables suggest a positive relationship, while negative correlations indicate a negative relationship. Correlation coefficients close to 0 imply weak or no linear relationship.

Keep in mind that the interpretation is based on the information provided. It's essential to consider the context of the data, the specific research question, and any assumptions made during the analysis. Further exploration and model diagnostics may be necessary for a comprehensive understanding of the data and the relationships between variables.

### Correlations

		A	B	C	D	R.O.E
A	Pearson Correlation	1	.350*	.157	.720**	-.238
	Sig. (2-tailed)		.039	.368	.000	.168
	N	35	35	35	35	35
B	Pearson Correlation	.350*	1	.476**	.569**	-.151
	Sig. (2-tailed)	.039		.004	.000	.388
	N	35	35	35	35	35

C	Pearson Correlation	.157	.476 <sup>**</sup>	1	.138	-.199
	Sig. (2-tailed)	.368	.004		.428	.251
	N	35	35	35	35	35
D	Pearson Correlation	.720 <sup>**</sup>	.569 <sup>**</sup>	.138	1	-.008
	Sig. (2-tailed)	.000	.000	.428		.962
	N	35	35	35	35	35
R.O.E	Pearson Correlation	-.238	-.151	-.199	-.008	1
	Sig. (2-tailed)	.168	.388	.251	.962	
	N	35	35	35	35	35

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## **CHAPTER FIVE: CONCLUSION, SUMMARY OF THE STUDY AND RECOMMENDATION**

### **5.1 Introduction**

This chapter encapsulates the study's findings, draws conclusions from the research, and offers recommendations for the study and future research avenues in a specific field.

### **5.2 Summary of Findings:**

The overarching goal of the study was to explore the impact of financial distress on the performance of selected banks listed on the Nairobi Securities Exchange (NSE). Various factors, including poor economic performance and productivity, can contribute to financial distress in banks. The study employed quantitative data extracted from NSE, involving audited financial statements and income statements of the chosen listed banks over a five-year period. SPSS analysis was employed to analyze this data.

The Springate S-score was computed for each bank within the years 2018 to 2022 using the formula  $S\text{-score} = 1.03A + 3.07B + 0.66C + 0.4D$ . Correlation analysis explored the connections between specific financial distress variables (X1 and X2) and Return on Investment (ROI) for the banks. Regression analysis delved further into this relationship by examining the coefficients of the financial distress variables (X1, X2, X3, X4, and X5).

### **5.3 Conclusions:**

The Springate model emerged as a pertinent tool for predicting the financial well-being of businesses. Its applicability extends to monitoring banks' financial performance and evaluating broader business financial health. Incorporating this model can facilitate effective planning and foresight, leading to strategic advantages and competitiveness.

In conclusion, the study provides insights into the financial performance and distress risk of Agriculture listed companies on the NSE. Recommendations include further exploring the relationships between variables, considering transformations or alternative regression models, and performing deeper analysis to uncover additional factors influencing financial distress.

#### **5.4 Limitations of the Study:**

The study's scope proved expansive and challenging within the allocated timeframe. The necessity of calculating the Springate Score for all NSE-listed agriculture over a five-year span presented difficulties in data analysis. Furthermore, data collection faced hurdles due to missing reports from some agriculture listed companies.

#### **5.5 Recommendations:**

While the Springate-score model serves as a valuable tool for assessing financial distress, it's not the sole option available. The study recommends potential investors in various companies to adopt the Springate model as an assessment tool. Additionally, when applying the Springate model it's advised to consider current economic conditions, including shifts in the economy and markets.

#### **5.6 Areas for Further Research:**

The study identifies potential future research domains:

Exploring the application of the Springate model within manufacturing firms in Kenya.

Investigating the applicability of Springate model to small business enterprises.

Delving deeper into the Springate model and exploring alternative formulae to enhance its effectiveness in predicting financial distress.

In conclusion, this chapter distills the study's key findings, underscores the significance of the Springate model, acknowledges study limitations, offers actionable recommendations, and points to areas where further research can illuminate new insights in the field.

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