EFFECT OF CAPITAL STRUCTURE ON PROFITABILITY OF TEA COMPANIES IN KENYA

WAMALWA ESTHER NABUSIIME

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (FINANCE), FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

2022

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university.

Signed: ----------  ---------- Date: 25/11/2022

WAMALWA ESTHER NABUSIIME

D61/37152/2020

I, the undersigned, declare that I have supervised the research project and is in accordance with the university guidelines.

Signed  Date: 25/11/2022

Ronald Chogii

Department of Finance and Accounting

Faculty of Business and Management Sciences

ACKNOWLEDGEMENT

I would like acknowledge and express gratitude to all the people who have supported me through this time. First my supervisor Dr. Ronald Chogii who has been my supervisor and has guided me all through the study period. My parents, Mr. and Mrs. Wamalwa who have provided resources and funds to make this possible. My siblings, Deborah and Drusilla, my friends Brian, Collins and Amanda who have given me support and encouragement and Rose who has pushed me and encouraged me also. Most importantly God who has given me strength and without him this would not have been possible.

DEDICATION

I dedicate this project to my parents for all their support and encouragement throughout this whole time.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATION

CAPM	Capital Asset Pricing Model
COC	Cost of Capital
COD	Cost of Debt
COE	Cost of Equity
CS	Capital Structure
EAC	East African Community
EPS	Earnings per Share
EY	Earning Yield
GSE	Ghana Stock Exchange
KETEPA	Kenya Tea Packers Limited
KTDA	Kenya Tea Development Agency
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROAA	Return on Average Asset
ROE	Return on Equity
WACC	Weighted Average Cost of Capital

ABSTRACT

To finance operations and make investments, businesses need money. The majority of businesses struggle with the decision of whether to finance their operations with debt or with equity. But for organizations, identifying the best solution and appropriately managing risks are essential. The main aim of the study was to determine how the financial structure of Kenyan tea enterprises affected their profitability. A descriptive research design was thought to be advantageous for this study since it was helpful in acquiring data that highlight the relationship between variables. Despite the study's emphasis on 60 Tea companies that had been registered at the TBK for the previous five years, data from 26 companies was obtained that was regarded adequate to establish conclusions (2017-2021). The study made use of secondary data from the annual reports that each corporation published. The data analysis employed descriptive and inferential statistics. As a result of the study's findings, an R-square value of 0.046 was obtained, indicating that the four independent variables selected can explain about 17.8% of the variation in the profitability of Kenyan tea companies, with the remaining 82.2 percent of the variation being related to other variables unconsidered in this study. Additionally, the study found a marginal correlation (R=0.421) between the independent variables and tea company profitability. The ANOVA test indicated that the F statistic was significant at the 5% level with a p value of 0.000. The methodology thus proven useful for examining the profitability of Kenyan tea businesses. The research found that the financial structure of tea firms didn't affect their profitability over the study period. Businesses have used debt to lower operating and financial costs. The capital structure, size, leverage, or other characteristics of Tea Companies did not affect their profitability. The difference in tea firm profitability of 17% was explained by the independent variables. Regarding the regression model that was employed, a significant finding was made. It was demonstrated that there was little correlation between the Tea companies' profitability and capital structure. It is proposed that a fair debt and equity ratio be set in order to ensure that the Tea companies have appropriate capital. The companies will be able to settle their obligations and make investments with high return potential as a result. Due to time and financial restrictions, the researcher had to use 26 registered tea companies. More research has to be done in this area because there are few to no studies and scant information accessible on the Kenyan tea industry. This will provide us additional knowledge about the tea industry and possibly a better understanding of how the businesses function.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Capital structure (CS) is an important factor for every business organization because it is the basis for critical decision-making, which the management considers allowing for maximization of profits. Mohammad, et.al, (2015) argue that these decisions are vital for the financial welfare of the firm in their study of capital structure on Iranian firms. They further note that many studies have shown that it is difficult for organizations to find a perfect debt and equity ratio for their business. Usoro quotes Myers 1984 work in his dissertation on the correlation between CS and performance of U.S. retail banks that "the previous profits of a firm after setting aside the dividends to be distributed should constitute the primary portion of its capital structure" (2022). Numerous studies on capital structure intend to explain the combination of securities and funding sources utilized by businesses and how they affect profitability (Myers, 2001). The results of prior studies on the connection between a firm's CS and performance, which has primarily focused on industrialized nations in Europe and America, have been contradictory

A lot of the research that has been done on the mix of debt and equity are mostly anchored on the Modigliani and Miller model (1958) that showed that the CS has no effect on a company's value and that an optimal capital structure does not exist. In a study of business attitudes, Wagacha (2001) discovered that enterprises added debt after going public. The Modigliani and Miller model, according to Brigham and Gapenski (1996), was correct in theory, but costs associated with bankruptcy did exist and were inversely connected to a firm's debt levels. This result implied a connection between a firm's CS and financial performance. This idea has been vigorously contested by academics considering the flawed market conditions.

The effect of CS and profitability has been one of the major issues that finance managers face, many studies have been carried out on the same in developed countries and few on developing countries according to Singh and Bagga, (2019). In Kenya the studies done on CS and profitability have focused on the energy sector (Chahenza, 2016), listed companies (Koech, 2013) and banking sector (Yegon, et.al, 2014). There are no studies conducted on the CS and profitability in the agricultural sector. This study therefore aimed to fill this gap by specifically doing a study on the tea companies in Kenya with the objective that it would

contribute to the current discussion on CS and profitability as well as make a difference in the performance of the tea industry.

The performance of the tea industry in Kenya is not consistent, as it has been fluctuating overtime. In the African region, Kenya is the leading tea producer and exporter. According to KALRO Institute (2022), Kenya currently exports 96% of her tea and consequently it fetches low prices in the world market therefore leading to depressed revenue for the tea growers. Further, the tea industry in Kenya faces global and local challenges such as prohibitive costs that affect financial performance.

1.1.1 Capital structure

The term "capital structure" describes how a company finances its assets and business activities by using a combination of debt and equity. Equity represents the money that shareholders will get back when all assets are liquidated, and all debts paid off in case of liquidation. Debt represents a finite- to- maturity source of capital that legally binds the firm to fixed continuous cash outflows with a possibility of refinancing in future at a cost and it is cheap. Several elements, such as business risk, tax exposure, market circumstances, the firm's growth pace, and the COC, determine whether to employ debt, equity, or a combination of the two (Huang & Song, 2006).”

According to Myers & Majiluf's (1984) static trade-off theory, the ideal capital structure can be obtained once the costs of financial stress and the advantages of borrowing are weighed in. Debt ratio is what is used to measure the capital structure. Companies that depend less on debt have low ratios while those with high ratios have high debt dependency. This study was to explain how the capital structure of a firm influences the profit. However, the concept of CS's pecking order presupposes that there is no ideal CS and that firms instead pick capital in accordance with internal finance preferences, favouring debt then equity (Chen, Jung, & Chen, 2011). The study considers the capital structure of companies, which is made-up of debt and equity. Debt ratios are calculated by dividing total debt by total assets to compare a company's total debt and total assets possessed.

The capital structure illustrates how the financing mix of a company is made up of owner cash and borrowed funds. It can also be described as using money from outside sources to finance a business, which may result in higher operating earnings and taxes (Barakat, 2014). Harris & Raviv (1991) stated that equity might be in the form of common stocks without

preference, undistributed earnings, and preference shares while debt is represented by issuing bonds and long-term payable notes.

It is widely preferred by researchers to use debt ratios in capital structure research, where total debt is compared to total assets owned by the company. The results of which show the company's preference in terms of equity or debt financing. That is, high percentage shows that a company prefers debt to equity while low percentage shows that they prefer equity to debt financing. The ratio of debt to aggregate capital is another measure of capital structure.

1.1.2 Profitability

Profitability and profit are interchangeably used but they are two different lexical terms. Profit refers to the revenue a company makes after incurring expenses and costs, while profitability refers to a metric used to measure the scope of a company's profit relative to its size. Most organizations aim to maximize their profits (Niresh & Velnampy, 2014). Earnings per share (EPS) and sales are the profitability measures used to assess the profits produced by a company over a specific time based on the capital employed. Accounting profits or economic profits, which are any business' primary objective, are how profitability is expressed (Anene, 2014). Profitability is one of the most important indicators of success in a business. Profitability also includes the ability to generate benefits from all the business operations of a company (Muya & Gathogo, 2016). The return on assets (ROA) and return on equity (ROE) measure profitability. Many factors affect the profitability of tea companies; however, the study was focusing on the capital structure and used ROE as a measure.

1.1.3 Capital Structure and Profitability

Debt and equity are the components of the capital structure, and both have costs incurred to receive funds; these are the cost of capital (COC). The interest rate that the lender charges for borrowing money is known as the cost of debt capital, and the rate of return on investments is known as the cost of equity expected by the shareholders usually represented by dividends and capital gains. Though equity is cheaper than debt, they both influence the profit margins of the firms. An organization with a particularly debt-heavy capital structure pays out more in interest each year, which lowers net profit. Financial decisions are the most important decisions for any organization to make and these decisions determine the choice of capital structure. Companies must choose the best CS to maximize their revenues because wealth maximization is their primary goal (Morris, 2001).

The capital structure theory of Modigliani and Miller (1985) contends that there is no connection between CS and profitability because the profitability of the company is unrelated to its level of leverage. However, CS and profitability are connected in that the most profitable CS is the one that results in the highest firm value or the lowest COC (Ben-Shahar, 1968). Debt also has a favorable impact on profits since it allows a firm to increase the impact of current resources that gives room to more rapid expansion than would be otherwise possible. It in turn leads to a growth in revenue that outpaces the cost of paying interest.

A company funded by shareholder equity owes it to the investors to remain profitable to fulfill its obligation. While one fully funded by debt will have to make interest payments each month; however, all the profits made will belong to the business owners and used for the benefit of the business. The capital structure also indirectly affects profitability in that it adversely affects the availability of new capital if need be. A business with a significant debt to equity ratio is often seen as an unnecessary risk as it makes it difficult to raise additional funds. Limiting funds also reduces the growth potential of the business and stagnates profit margins. This is in line with a study by Khadka (2006) that found that failing to grasp the link between CS and profitability increases the risk of businesses taking on more debt without making much money.

According to Modigliani & Miller (1986), the value of a firm will continue to rise to the point where the tax benefits enjoyed will be surpassed by bankruptcy costs because of using debt financing. Pandey (2002) stated that equity as a source of financing is safe from insolvency costs and agency costs. Financial leverage affects the profitability of a firm when measured by ROI and ROA (Baker, 1973). When the level of leverage increases, the savings from taxes also increase until they reach the optimum level that in turn makes taking on more leverage reduce profitability because of the agency cost that is associated with debt.

Fama and French (1998) argue that utilizing excess debt financing leads to agency challenges when monitoring the management's investment behavior. That is, it causes the management to have a lot of extra cash flow with them and they may end up making investment decisions that only benefit them and forget to work on maximizing shareholders benefits.

1.1.4 Tea Companies in Kenya

"Tea is the leading industrial cash-crop contributor to the GDP and foreign exchange earner, accounting for 4% of the national GDP" KIPPRA (2020). The research also showed that Kenya accounts for almost 10% of the total tea produced in the world but in 2018, it

accounted for 25%. In 2018, export of tea brought Kenya Ksh 140 billion, but it declined in 2019 where it brought Ksh 117 billion KNBS (2020). In addition, the Business Daily (2022) notes that, in 2021 tea earnings was influenced by a weaker shilling and higher volumes of export which resulted in Shs.16 billion rise s in earnings translating to shs.136 billion from shs.120 billion recorded in 2020. Studies by Kinyili (2003) showed that the tea industry in the world is dominated by five major countries, that is, India, China, Sri Lanka, Indonesia, and Kenya. Tea industry has a very elaborate value chain that has production, processing, marketing and distribution and the different companies focus on the different parts of the chain. There are more than 20 companies in the tea industry.

The study was a census study and was to study all the 60 tea manufacturing companies in Kenya registered by the Tea Board of Kenya. In the tea industry most, companies prefer to use high equity and low debt in their capital structure. It is in line with the study by Kago (2012) that states that companies in Kenya have a preferential use of equity funding and low debt rate which is completely different to the capital structure and financing order theory. Kago notes also that the reasons why companies in developing nations underperform is mainly because of the choice of capital.

Tea companies in Kenya always report profits, although over the years the performance has not been consistent. The profits are fluctuating, some years they increase and on others they decrease. Every company is striving for increased profits or at least consistent ones. Since the companies are highly dependent on equity financing, shareholder wealth maximization is of great importance. increased profits mean high dividends pay out. Finding a perfect balance of debt and equity capital might have a positive effect on the profitability of the companies and will be of benefit to them.

1.2 Research Problem

Researchers have been interested in capital structure in recent years, as it relates to a company's capacity to fulfill the goals of different stakeholders. Due to the necessity to optimize profit, CS is an important decision for each company organization (Morris, 2001). Thus, of utmost importance is the decision to use CS in assessing the firm's value and, hence, its survival (Ogebe & Kemi, 2013). However, financial managers must consider what the company is willing to pay to maximize profits. This is because companies create value when they provide a return that exceeds the COC.

Tea industry is Kenya's key foreign exchange earner and has a high employment potential (KIPPRA, 2020). It therefore means that the performance of the tea companies directly affects Kenya's economy. The current fluctuating state of tea industry performance that recently showed a decline in profits is a problem to the economical state of the country. The Tea companies' performance and profitability is greatly dependent on the amount of cash flow the company has. Hence, this study aims to show whether capital structure of tea companies influences profitability. This will then provide relevant information that will help the tea industry in case of the possibility of an optimal capital structure. Since no study had been done on the profitability or performance of Tea companies, the study hoped to fill this knowledge gap by providing information on it.

Berger (2006) asserts that organizations' capital structures, a topic that has received scant attention from earlier studies, may play a role in the patterns in their financial performance. Since this, the researcher chose to look at how Kenyan tea companies' profitability is affected by their capital structure. Studies on the same have been done on the energy utility companies in Kenya by Chahenza (2016), firms listed at the NSE by Gichuhi (2016) and Commercial Banks in Kenya by Kuria (2013) but none done in the Agricultural sector more specifically the Tea Industry. The only study on the tea industry was by Kago (2012) regarding the determinants of firms' capital structures in the tea sub-sector in Kenya. Even though it is of great importance, businesses must consider the costs associated with these forms of funding when deciding on the appropriate debt and equity mix to finance their operations. The study attempted to answer the research question, what is the effect of CS on the profitability of Tea Companies in Kenya?

1.3 Research Objective

The purpose of this study was to determine how capital structure affects tea firms' profitability in Kenya.

1.4 Value of the Study

This study is crucial for academics and researchers interested in capital structure since it has complemented current research and offered suggestions for more research. It aims to provide quantitative statistics that serve as a solid foundation for further research in this sector by providing information on the capital structure area related to profitability.

The study is helpful to the numerous managers in charge of managing Kenyan tea companies because it provides details and advice that could enable them to make more informed

management decisions that would maximize shareholder wealth. The research adds to the body of knowledge that can be used to educate tea producers and other businesses on the optimum financial arrangement to increase output and ensure sustainability. This study can assist companies in understanding the factors that influence their decision-making to attain an ideal capital structure that outlines the benefits and drawbacks of employing debt or equity as a form of financing to suit the needs of its many stakeholders.

To provide information, this study's goal was that business analysts may use it to evaluate the value of tea companies that are listed on the NSE. By offering data that is helpful in determining the value of tea companies, it can also assist investors in expanding their investment prospects by examining the components of a capital structure that maximize shareholder return while maintaining low capital costs. This study aims to add to the body of knowledge on capital structure and profitability.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The CS literature and the success of Kenyan tea companies is examined in this chapter. The first part of the study investigates numerous theories that are pertinent to it. The factors that affect profitability and CS will be looked at in the second section. The summary will explain the gap found in the evaluated empirical studies once the third section, which will address empirical literature by diverse scholars, has been completed.

2.2 Theoretical Review

Theories pertaining to capital structure and profitability, the trade-off theory, the Modigliani-Miller theorem, and the pecking order theory. After the Modigliani-Miller (1958) Capital Structure theorem was established, capital structure theories changed throughout time. Following the research of Modigliani-(1958) Miller, several theories have been developed with conflicting evidence proving the importance of capital structure to business value. The trade-off idea was created by Myers and Majiluf in 1984 and assumes that debt may be advantageous due to tax-deductible interest.The pecking order hypothesis (Myers & Majiluf, 1984) argues that companies like using internal resources to fund their assets debt, and then equity in that order, demonstrating the significance of capital structure to the organization.

2.2.1 Modigliani-Miller irrelevance Theory

The Modigliani-Miller (1958) theorem represents the most important advance in the study of optimal capital structure. Financial choices made by businesses that have no bearing on their value are defined under the theory.

It contains four prepositions: (a) A firm's value remains constant irrespective of whether it is funded by debt or equity. It has a constant weighted average capital cost. The Modigliani-Miller theorem makes the following assumptions: both businesses and investors may borrow money at the same interest rate, there are uniform expectations and risks, and everyone has equal access to all important information. They are also without transaction fees, default risk, or taxes, flawless and frictionless markets (b) The ROE on equity increases is linearly correlated to the debt ratio, which means that the expected return on equity ratio will increase as the debt ratio increases. (c) Dividend payments do not change the market value of the company; rather, they change the ratio of stock to debt used to finance the business. (d) Regardless of where the funding would come from, a corporation should plan for a rate of

return at least equivalent to the capital cost before making an investment. Therefore, the average cost of capital should equal the marginal COC. "Hurdle rate" is another name for the continuous cost of capital (the percentage necessary for capital investment).

The theory states that in a market with no corporate income tax and no arbitrage, a firm's value is constant with respect to its leverage strategy.and no fees for bankruptcy. The firm's worth is unaffected by whether it is financed by debt or equity. The presumptions underlying the Modigliani-Miller theorem of CS are false in practice. Taxes, transaction costs, information asymmetry, and bankruptcy costs all exist. This implies that the Modigliani-Miller theorem of CS outcomes might simply be theoretical and not be applicable in real life. The theory is relevant to a perfect market but the tea industry in Kenya is not a perfect market, it will allow the study to show how capital structure would affect profitability if it were one.

2.2.2 Trade-off Theory

Myers' trade-off theory claims that (1984), a firm's choice on the source of funding is assessed according to the multiple advantages and disadvantages connected with various funding sources in their search for the appropriate CS. According to this approach, the company sets a goal debt-to-equity ratio and progressively moves toward it. Companies seek debt levels that strike a balance between the tax advantages of taking on greater debt and the costs of potential financial instability. Capital structure aims to achieve targets that consider tax rates, asset types, business risks, profitability, and costs associated with bankruptcy.

Maintaining the same assets and investing strategies, the company balances the costs and benefits of borrowing. Myers (1984). The tax benefits of debt and different costs associated with leverage will need to be balanced out to determine the firm's ideal capital structure. The desired leverage ratios will differ from one firm to another due to differences in the features that are unique to each firm. The goal ratio will fluctuate between nations because of institutional variations, including various financial systems, tax regimes, and bankruptcy laws, among others. According to the hypothesis, businesses should have larger debt-to-income ratios if they have more taxable income and physical assets.

Businesses that rely more on equity investment are those with a higher proportion of intangible assets, the value of which would be lost in a liquidation. Trade-off theory states that more prosperous businesses should have greater ability to service debt and more taxable revenue to protect, which means a larger debt ratio should be expected. In times of financial hardship, they are more prone to lose value, businesses with strong growth potential should

borrow less money, according to trade-off theory. The theory is relevant to the study since it will show whether the size of the company influences the choice of capital structure which in turn affects the profitability.

2.2.3 Pecking Order Theory

According to this theory, which Myers and Majiluf devised (1984), businesses prefer using internal resources before seeking outside funding. According to the notion of capital structure based on pecking order, businesses desire a certain hierarchy when making financial decisions. In situations where capital expenses cannot be covered by internal cash flow, businesses will instead of issuing equity, borrow money. Prior to using any type of external funding, internal finance is always preferred. Internal funds do not require additional financial information disclosure or flotation fees since it can cause a loss of competitive edge.

If a business needs to raise capital from outside sources, it is preferable to use, in this order: debt, convertible securities, preferred stock, and common stock. according to Myers (1984). This sequence reflects the financial manager's goal to keep control of the business, reduce stock agency expenses, and avert a negative market response to the announcement of a fresh share issue. The level of debt will reflect the firms' overall requirement for outside capital. The theory makes two main presumptions regarding financial managers. The first of them is the possibility that a company's managers know more about the firm's current profitability and potential for future growth than outside investors. Such information is strongly desired to remain confidential. Using internal funds spares management from having to reveal the company's investment prospects and possible returns on those investments to the public. The managers will act in the present shareholders' best interests, according to the second assumption. According to Myers and Majluf, the managers may even decide against a positive-NPV plan if it calls for the issue of new shares because doing so will unfairly benefit new shareholders at the expense of current ones (1984).

The theory does, however, have significant limitations because it does not account for the ways in which taxes, the financial crisis, issuance-related fees, agency expenses, or the range of investment options accessible to a firm may alter its actual CS. Not taken into account are the problems that might develop if a company's managers amass enough financial slack to make them resistant to market discipline. As a result, the theory is presented in addition to the conventional trade-off model rather than as a replacement for it. Since it depicts the hierarchical process that firms use to acquire money, the pecking order theory is pertinent to

this subject. The theory is important as it allows the study to look at the percentage of internal funds, debt, or equity that makes up the CS of Tea companies in Kenya

2.2.4 Agency Cost Theory

The agency cost hypothesis was made possible by the revolutionary contributions made by Jensen and Meckling (1976). The agency cost theory states that finance managers and investors can use a company's financing structure as a tool to address the free cash flow issue. According to agency theory, the companies that take the corporate form is exemplified by financial managers who own little of the company but manage it on behalf of the numerous, dispersed shareholders (owners), which is a classic principal-agent issue (Gedajlovic & Shapiro, 2002).

Agency expenses result from the ownership and control separation because managers optimize their own benefits or use company resources for personal gain rather than enhancing the company's value or the wealth of its shareholders (Mian, Haris & Muhammad, 2012). Agency costs were divided as monitoring costs by Jensen and Meckling (1976) shareholders, bonding costs, and residual loss of managers. Agency costs include those resulting from competing interests of a company's shareholders and managers along with those brought on by conflicts between the interests of debt holders and investors (Mian, Haris & Muhammad, 2012). The hypothesis states that agency costs are caused by managers and principals' divergent goals and behaviors, which will eventually affect the principals' advantages as well as the company's worth and profitability (Alfadhl & Alabdullah, 2013).

The basic presumptions of this theory for businesses are that management and employees must have common goals and that it is worthwhile to make expenditures that do not yield a return on capital to grow the business. This is the case since executive and employee salaries, service opportunities, benefits, and job security are correlated with firm breadth (Kumar, Rajan & Zingales, 2001).

The opportunity costs resulting from the impact of debt on the company's investment decisions, bondholder monitoring expenses, owner-manager monitoring costs, and bankruptcy and reorganization costs are all included in the agency costs of debt Hunsaker (1999). The ideal debt-to-equity ratio involves a trade-off between the two forms of cost because agency costs are incurred by both equity and debt. The theory is relevant because it allows us to understand the relationship between the agents and principals and know if it influences the capital structure.

2.3 Determinants of Profitability in Tea Companies

The purpose of the study is to demonstrate the link between capital structure and profitability. That is, it will show the effect a company's capital structure has on the profit it makes. Other than CS there are many other determinants of profitability, the study will work with, liquidity, financial leverage, and company size.

2.3.1 Financial Leverage

The amount of debt needed to fund the assets of a corporation is known as leverage (Abor, 2005). A corporation is said to be highly leveraged if it employs more debt than equity. Leverage and profitability have a favorable relationship, according to Robb and Robinson (2009) and Ruland and Zhou (2011). Financial leverage influences ROE favorably since it considers the earning potential of a company's assets, which are greater than the average cost of debt. Gichuhi (2016). According to Abor (2005), there is a strong correlation between overall debt and profitability (he measured profitability by using return on equity). Additionally, Chandrakumarmangalam & Govindasamy (2010) discovered that excessive debt uses by businesses increased shareholder wealth and was positively correlated with profitability. The total liabilities are divided by the equity to determine financial leverage.

2.3.2 Company Size

This explains how a company's size affects its profitability since big businesses can take advantage of economies of scale in their transactions to outperform small businesses and generate higher profits (Sehrish, Irshad & Khalid, 2010). Larger companies are thought to have an edge over smaller ones and more negotiating power, making it simpler for them to take advantage of economies of scale and scope, as well as specialization (Alkhazaleh & Almsafir, 2014). Additionally, actual data demonstrates that a company's size significantly influences its profitability by lowering the cost of capital raising for large enterprises (Tariq et al., 2014). Size of an institution captures scale economies or diseconomies, and typically the natural logarithm of assets of a firm is typically employed as a measure of size (Cull et al., 2007).

2.3.3 Liquidity

The ability of a corporation to meet its obligations is referred to as its liquidity (Ongore & Kusa, 2014). The availability of liquidity has an impact on profitability since it improves the company's ability to obtain cash rapidly to meet immediate and crucial needs. A low level of

liquidity is a symptom that a company is failing. Additionally, concerns with generating funds and failure to meet existing and unforeseen variations in the sources of financing are caused by liquidity problems (Tariq et al., 2014). To determine a company's liquidity position, one typically divides its short-term assets by its short-term liabilities.

Liquidity gap can also be used to calculate liquidity. The discrepancy between liabilities and assets based on current and upcoming data is known as the liquidity gap. The amount of money that is available for borrowing and investing affects liquidity. Tax deductions make debt a cheap source of financing, and many businesses prefer to use it. According to Gichuhi (2016), stable businesses are more liquid because they use short-term investments that produce frequent cash flows, and their long-term investments consistently yield returns due to the scrutiny they receive.

2.3.4 Efficiency

Efficiency, according to Berger and De Young (2011), is a degree of performance that describes a process that uses the least number of inputs to produce outputs. Efficiency is the use of all contributions, including individual period and vigor, to yield a specific yield. Efficiency can be assessed by calculating the ratio of valuable output to total contribution. It attempts to achieve the expected yield while mitigating the surplus of incomes such as physical resources, vigor, and time. According to Drake and Hall (2013), enhanced business efficiency results in higher profits, massive infusions of resources, better client charges and service values, and improved security in the form of a larger wealth buffer in impending hazard. The study will assess efficiency by calculating cost efficiency by dividing total operating expenses by total income.

2.4 Empirical Literature Review

Abor (2005) examined the relationship between the Ghana Stock Exchange's (GSE) listed companies' capital structures and profitability. 25 listed firms that provided data between 1998 and 2002 were considered for this investigation. He used regression analysis to assess the activities involving return on equity (ROE) as a measure of capital structure. The study's finding was that the capital structure and marketing are related because different companies issue various securities in numerous combinations to increase market value. Large return and lucrative businesses always employ more short-term debt; this type of debt represents a substantial part of the entire debt and is typically used by businesses to offset 85% of their

long-term debt. The relationship between overall debt and return on equity is positive, whereas the relationship between long-term debt and return on equity is negative.

The internal variables that affect bank profitability in Zimbabwe were studied by Chinoda (2014). Five commercial banks were randomly chosen for the study's sample, and secondary data derived from bank financial reports was used. The model of generalized linear regression was used in the study, which found that operating expenses were negatively correlated with the profitability of commercial banks in Zimbabwe, but bank size, liquidity, GDP, and inflation were positively correlated with ROA. The study suggested that to promote financial intermediation, efforts to prevent inflation should be prioritized.

Chen et al. (2009) studied the Taiwanese insurance industry to comprehend the connection between profitability, operational risk, and capital structure. To research the connection between an American sample of listed insurance companies' capital structure, operational risk, and profitability, the study used factor analysis and path analysis approaches. According to the study's findings, operational risk, profitability, and capital structure have a close relationship; however, company values are unrelated to capital structure. If reserve-to-liability ratio falls or equity ratio rises, which leads to increased profits, capital structure is inversely correlated with profitability.

Using both internal and external (market) metrics of profitability, Lipunga (2014) conducted a five-year study between 2009 and 2012 on the factors influencing the profitability of listed banks in Malawi. The multivariate regression and correlation analysis of the study was performed to discover the internal and external variables of profitability using (EY) and (ROA). The findings of the regression analysis showed that, while capital adequacy had a negligible effect on return on assets, the size of the bank, management effectiveness, and liquidity did. Additionally, the research revealed that capital adequacy, managerial effectiveness, and size of bank all have a considerable impact on earnings yield, whereas liquidity has little bearing on it.

Rono, Wachilonga, and Simiyu (2014) investigated the effect of interest rate spreads on the Kenyan listed banks performance. The study used secondary data from published yearly reports from the years 2007 to 2012 and a descriptive design. The study found that utilizing the Pearson product moment correlation, commercial banks generate a profit by using a variety of margins on interest rates to meet their expenses. In addition, the study discovered a negligible relationship between the difference in interest rates and the cost of non-performing

loans. However, there was a strong relationship between the difference in interest rates and ROE and ROA.

In Kenya, banks' profitability was studied by Kyalo (2013) during a three-year period between 2010 and 2012. For the study, secondary data was gathered from Kenya's 44 banks. He applied the regression model, and the results of the study showed that while operational effectiveness, GDP, and inflation had negligible effects on ROE on equity, capital invested had a considerable impact on that metric. To create successful financial performance-improving strategies, the study suggests that Kenyan commercial banks ought to pay more attention to both bank-specific elements and external concerns.

The construction sector's capitalization and profitability of the construction industry in Hong Kong were analyzed by Hung et al. (2002). Data were subjected to regression analysis to determine the outcomes. The findings indicate that capital has a favorable connection with assets and a detrimental association with profitability.

The profitability of Kenyan commercial banks was examined by Sawe (2011) in terms of both internal and external factors. The study employed a panel data methodology. According to the study, a bank's capitalization ratios, size, liquidity, cost management, inflation, market share, and loan loss provisions are the main factors influencing its profitability. The study also found that market concentration, GDP per capita, interest rates, and currency rates had the least impact on banks' profitability.

Yegon, Cheruiyot, Sang, and Cheruiyot (2014) carried research on how capital structure affects the profitability of banks listed on the NSE and found no association between total debt and profitability, but found a Profitability has a positive link with short-term debt, but a negative correlation with long-term debt. 11 banks that were listed on the NSE between 2004 and 2012 were included in the study's sample. The ROE was used to gauge profitability, the levels of total, short-term, and long-term debt to assets were utilized to evaluate capital structure. To ascertain the correlation between the variables, they employed simple regression. According to the trade-off approach, short-term debt is a less expensive form of financing and is consistent with the positive association between short-term debt and profitability. Short-term debt considerably increased business profitability. The pecking order theory, according to which profitable businesses prefer to employ earnings rather than debt for financing needs, is in line with the findings that long-term debt has a negative impact on profitability.

2.5 Conceptual Framework

A conceptual framework shows the relationship between the variables under consideration. Since the goal of the study is to determine how the capital structure of Kenyan tea companies affects their profitability, capital structure will be one of the independent variables. Profitability will be the dependent variable, whereas financial leverage, firm size, and liquidity will be the control variables

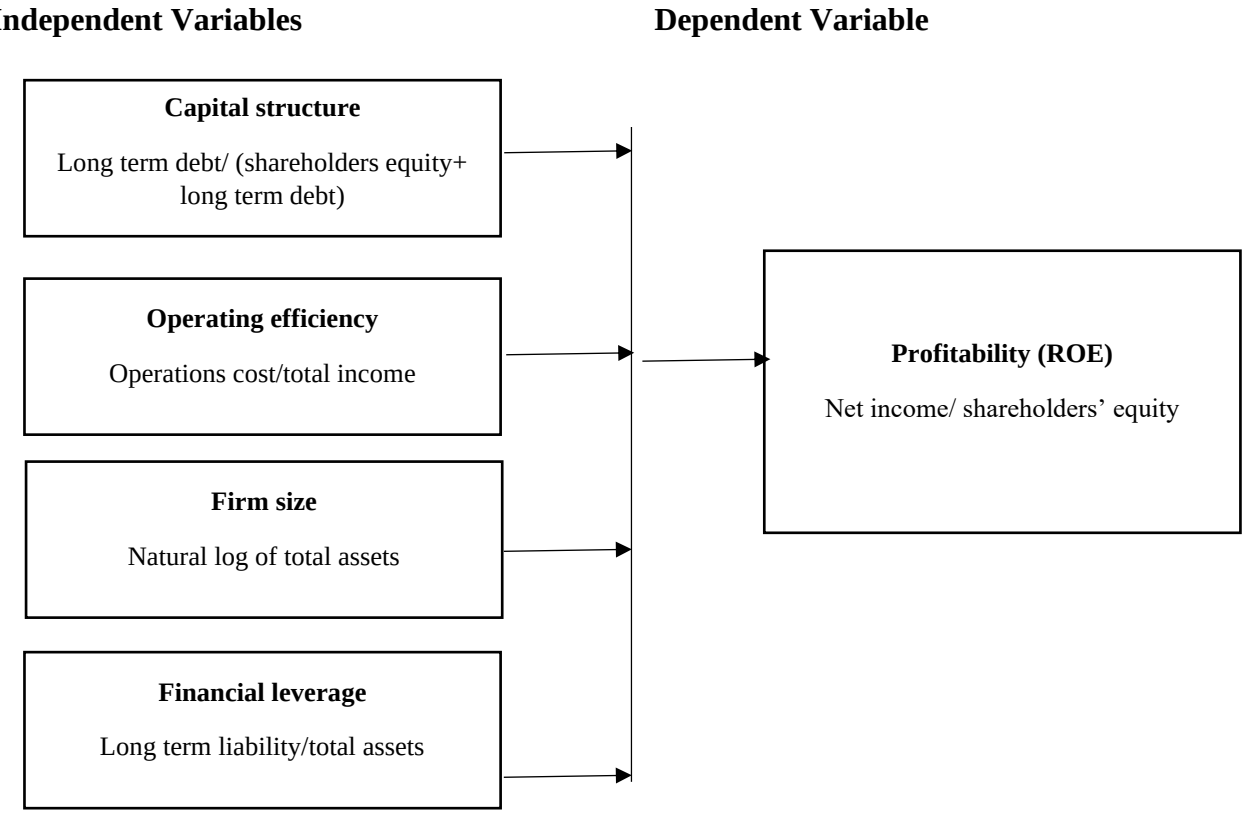

Figure 2.1 Conceptual Framework

2.6 Summary of Empirical Review

The subject of how the capital structure affects the tea companies in Kenya was raised because of the inconsistent views regarding the impact of CS ratios and interpretation. The empirical research on the subject has not been able to definitively resolve the contradictions around the impact of capital structure on profitability. Most of the studies done were focused on companies listed on the NSE and commercial banks. This study covered the gap on research of CS and profitability within the Agricultural industry and more specifically the Kenyan Tea Companies.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter explores the research approach that was employed. Discussions of the study methodology, sample size, and data collection, data processing, and significance testing are among the topics discussed. Investigating how CS affects tea companies' profitability in Kenya is the goal of this study.

3.2 Research Design

According to Sekaran and Bougie (2010), a research design is a methodical organization of the measures, factors, and methods used in data collection and analysis in order to accomplish study objectives as effectively and efficiently as possible. It also entails setting up data collecting and analysis settings in a way that balances relevance to the purpose of the study (Kothari, 1990). The descriptive research design was used for the investigation. The current situation (Saunders et al.,2009) regarding the impact of CS on the profitability of Tea Companies in Kenya was ascertained using this approach. Descriptive studies put a lot of emphasis on figuring out how closely connected the variables are that are used to define a population's or phenomenon's characteristics. It makes no difference whether the research is qualitative or quantitative, hence this design was applicable.

3.3 Population and Sampling

A population is made up of all the variables, objects, or subjects that fall under the purview of a study. The study's participants were all of Kenya's tea firms. Sampling was not required for this study because it was a census due to the differences in all the companies and the intent to accommodate all of them.

3.4 Data Collection

The secondary data used in this study was taken from annually released financial statements. Five years, from 2017 to 2021, was the time frame under examination. Because the statements were created using conventional accounting standards, the data was regarded as credible.

3.5 Diagnostic Tests

Diagnostic tests are used as an approach to identify model inadequacy or failure. The study used autocorrelation and multicollinearity.

3.5.1 Autocorrelation

The Durbin Watson test, with cut points between 1 and 3, was used to determine the autocorrelation.

3.5.2 Multicollinearity

The variance inflation factors (VIF) and tolerance levels, where the cut points were 1 and 10, was used to determine multicollinearity.

3.6 Data Analysis

Since the majority of the data was quantitative, analysis will combine statistics that are both descriptive and inferential. Included in the descriptive statistics are percentages, the mean, standard deviation, and frequency distribution. The data gathered was presented in tables when applicable to make it easier to interpret and conduct analysis. The information was input into SPSS to generate inferential statistics utilizing multiple regression analysis to ascertain the correlations between dependent, independent, and control variables.

3.6.1 Analytical Model

$Y = \beta 0 + \beta 1x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \varepsilon$

In which:

Y= Profitability which was measured by Return on equity which is net income / shareholder's equity (dependent variable)

X1= Capital structure as determined by capitalization rate which is long term debt / (shareholder equity + long term debt).

X2= Operating Efficiency was measured by operation costs / total income

X3= Firm Size was measured by natural logarithm of total assets.

X4= Financial leverage measured by long-term liability/ total assets

β0 = Y intercept of the regression equation

β1, β2, β3 and β4 = Regression Coefficients

ε = Error term

3.6.2 Test of Significance

The study's chosen model's fitness will be demonstrated by ANOVA and the F-test. The coefficients demonstrated the impact of each variable on implementation. At a 5% goodness

of fit, the results of significance were interpreted. The P-value and T-test were both be interpreted.

CHAPTER FOUR:

DATA ANALYSIS, FINDINGS, AND INTERPRETATION

4.1 Introduction

This chapter describes the statistical analyses that were done using regression analysis and descriptive statistics. The overall goal of the investigation was to assess the relationship between the capital structure and profitability of Tea companies in Kenya.

4.2 Descriptive Statistics

This part included an examination of the study variables' trends over the course of the research period. In addition to the mean scores of the variables to determine how they related to capital structure and profitability; this provided a pattern extending from minimum to maximum values. The results are displayed in Table 4.1.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
ROE	130	-.09	.17	.0313	.03447	1.116	3.715
CS	130	.00	.34	.0718	.07290	1.465	2.251
OE	130	.09	26.01	1.1305	2.30498	10.146	107.971
FS	130	18.40	22.97	21.3112	.51089	-.141	9.791
FL	130	.07	6.30	1.4213	1.03879	1.923	5.944
Valid N (listwise)	130						

Table 1 Descriptive Statistics

Table 4.1 presents descriptive statistical analysis for the variables employed in relation to the mean, standard deviation, skewness, kurtosis, minimum, and maximum values. Between 2017 and 2021, all tea companies had an average ROA of.0313 with a standard deviation of.3447. The maximum ROA value was.17, while the lowest value was -.09. The capital structure ratio was on average.0718 (SD=.07290), with a maximum value of.34 showing that some businesses did not use debt financing and a minimum value of.00 showing that some

businesses had high leverage. The average firm size was 21.3112, while the mean operating efficiency ratio among the tea firms under study was 1.1305, with highest and lowest values of 26.01 and.09, respectively. Maximum and minimum values for firm size were 22.97 and 18.40. Financial leverage averaged 1.4213, with maximum of 6.30 and a minimum of .07. Finally, the array between 2 to +2 for skewness and 7 to +7 for kurtosis revealed that all of the variables had normal distribution, apart from operating efficiency ratio, which had kurtosis of +107.971 and skewness of +10.146 and firm size, which had kurtosis of +9.971. Moving forward, we will assume that normality was not violated.

According to the results in Table 4.1, the companies' profitability grew during the study period, from -.09 to.17, with a mean score of.0313. With a mean score of.0718, the capital structure ratio climbed from.00 to.34. Operating effectiveness significantly improved, reaching 26.01 with a mean score of 1.1305. The average firm size of listed companies went up from 18.40 to 22.97. This can be linked to companies' profitability, which allowed them to generate income from their base of assets. Leverage increased during the research period from.07 to 6.30 with a mean of 1.4213, which showed that businesses racked up significant debt to fund their assets.

4.3 Diagnostic Tests

The autocorrelation and multi-collinearity tests were employed in the study to evaluate the strength of the relationship between the capital structure and profitability of the tea company. The study looked for autocorrelation, which happens when an observation pair's error terms are not independent of one another. The variance inflation factors were used in the study to assess for multi-collinearity, which is the condition of high interrelationships between independent variables or the occurrence of two or more prediction variables that are substantially inter-correlated in a multivariate regression model (VIF).

4.3.1 Autocorrelation Test

This was tested by the Durbin-Watson test and was used to detect presence of autocorrelation between the residuals of a regression. It is typically denoted by *d*. The output is presented in Table 4.2 below.

Table 4.2 Durbin-Watson test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.421[a]	.178	.151	.03176	2.124

a. Predictors: (Constant), FL, OE, FS, CS

b. Dependent Variable: ROE

Table 2 Durbin-Watson test

When residuals from several time periods are not independent of one another, autocorrelation results. The results on table 4.2 show that the DW statistics was 2.124, which varies between the recommended statistical threshold values of 1.5 and 2.5. This result shows that autocorrelation is not present.

4.3.2 Variance Inflation Factor (VIF)

This is used to measure the amount of multi-collinearity in regression analysis. Multi-collinearity exists when there are multiple independent variables in a regression model.

Table 4.3 Variance Inflation Factor (VIF)

Model		Collinearity Statistics	
		Tolerance	VIF
1	Capital Structure	.909	1.100
	Operating Efficiency	.990	1.010
	Firm Size	.986	1.014
	Financial Leverage	.899	1.112

a. Dependent Variable: ROE

Table 3 Variance Inflation Factor

Multi-collinearity develops when the input variables are not independent of one another. The VIFs (1.100, 1.010, 1.014, and 1.112) are below the suggested threshold value of 10, according to the collinearity results in table 4.3. This demonstrates that the multi-collinearity assumption has not been broken and that the dataset does not include multi-collinearity. Therefore, multi-collinearity won't be an issue in our model.

4.4 Regression Analysis

The relationship between the independent variable (capital structure), the control variables (operational effectiveness, company size, and financial leverage), and the response variable (profitability) was examined using regression. The model was as follows,

$$Y = \beta 0 + \beta 1x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \varepsilon$$

Where X_1 stands for the capital structure ratio, X_2 for operating efficiency, X_3 for firm size ratio, and X_4 for financial leverage. Y stands for the dependent variable (Profitability, i.e. ROE). Regression analysis was utilized to examine the connection between Tea Companies' profitability and capital structure. The results were presented as follows:

4.4.1 Model Summary

Table 4.4 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.421[a]	.178	.151	.03176

a. Predictors: (Constant), FL, OE, FS, CS

b. Dependent Variable: ROE

Table 4 Model Summary

According to Table 4.4, the capital structure, operational effectiveness, firm size, and financial leverage account for 17.8% of the variation in the profitability of the sampled firm.

The R square value (coefficient of determination) of 0.178 (17.8%) demonstrates this. The findings show that variables not considered by the study account for 82.8% of the variation.

4.4.2 Analysis of Variance

Table 4.5 illustrated that regression model was suitable and fit for the study. This was indicated by F-statistics (6.744) which is statistically significant (P-value=0.000<0.05) correspondingly. The significance of the link between capital structure and profitability was established using ANOVA experiments. When the f-significance is larger than 0.000 but less than 0.05, the regression model is considered significant. This is a reference to the 0.1 percent inaccuracy that can happen when using the regression coefficient to make a forecast (99.9 percent confidence level). The regression equation, which also yields consistent findings, is considered to be a good representation of the link between the profitability and capital structure of the firms under examination.

Table 4.5 Analysis of Variance

Table 5 Analysis of Variance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.027	4	.007	6.744	.000[b]
	Residual	.126	125	.001		
	Total	.153	129			

a. Dependent Variable: ROE

b. Predictors: (Constant), Financial Leverage, Operating Efficiency, Firm Size, Capital Structure.

4.4.3 Regression Coefficients

Table 4.6 Model Coefficients

Table 6 Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.180	.118		-1.527	.129
	Capital Structure =X_1	-.005	.040	-.010	-.116	.908
	Operating Efficiency = X_2	-.005	.001	-.309	-3.796	.000
	Firm Size = X_3	.010	.006	.143	1.752	.082
	Financial Leverage = X_4	.008	.003	.242	2.830	.005

a. Dependent Variable: ROE

The results in Table 4.6 reveal that at 5% level of significance for capital structure, p-value= .908 and t= 0.116. Then the capital structure does not significantly influence profitability because p > 0.05. At 5% level of significance for operating efficiency, p-value= .000 and t= 3.796. Then the operating efficiency is a significant indicator of profitability because p < 0.05. At 5% level of significance for firm size, p-value= .082 and t= 1.752. Then the firm size has no significant effect on profitability because p > 0.05. At 5% level of significance for financial leverage, p-value= .005 and t= 2.830. Then the financial leverage has a significant effect on profitability because p < 0.05. Thus, the study deduces that the capital structure and firm size do not significantly affect the profitability of tea companies, while operating efficiency and financial leverage have a significant effect on profitability of tea companies.

Table 4.6 shows that capital structure had (B_1=-0.005), while efficiency had a negative (B_2=-0.005), firm size had a positive (B_3=0.010), while financial leverage (B_4=0.008). The following model was estimated:

Profitability (ROE)=-0.180-0.005(capital structure)-0.005*(operating efficiency) +0.010*(firm size) +0.008*(financial leverage)

4.5 Discussion and Findings

In the study, it was determined how Kenyan tea companies' profitability was impacted by their capital structure. The dependent variable was profitability, which was determined by return on equity, while the independent variables were firm size, determined by the natural logarithm of total assets, operating efficiency, determined by operations cost divided by total, and financial leverage, determined by long-term liability over total asset ratio. In terms of strength and direction, the influence of each independent variable on the dependent variable was examined.

According to the model summary, the independent variables, the capital structure, firm size, operating efficiency, and financial leverage account for 17.8% of change in the dependent variable. This means that other variables not considered by this model are responsible for 82.2% of changes in the profitability of Kenyan tea companies. Given that the F-value is 6.744, the model is fitting with a 95% confidence level. This demonstrates the multiple regression model's overall statistical significance and its suitability as a model to explain how the chosen independent variables affect the profitability of Kenyan tea companies.

The results of this study are consistent with those of Mwangi and Birundu (2015), who carried out research to determine how capital structure affects SMEs' profitability in Thika County from 2009 to 2011. Multiple regressions and correlation analysis were both used as part of the descriptive research design for this study. The study found that the capital structure, asset tangibility, and asset turnover have little bearing on the study enterprises' profitability.

Unlike Tale (2014), who looked at the connection between capital structure and financial performance of non-financial registered firms at the NSE in Kenya during the period of 2008-2013, our study focused on the connection between these two parameters. The research population included all 40 officially registered non-financial listed firms that were registered with the capital market administration. The data were examined using regression analysis. It was discovered that the debt-to-equity ratio and financial success were closely associated.

According to the descriptive findings, tea companies were profitable during the study period since they achieved a mean score of.0313. During the study period, it was discovered that these companies had more debt than equity. The median result was.0313. The companies' operating efficiency was also found to have improved, with a mean score of 1.1305; this helped to explain why the companies' size rose to 22.97. These businesses made money, which they credited to increasing cost savings and the use of debt to finance assets. Leverage was measured on average at 1.4213, which showed that tea companies had racked up significant debt to fund their assets. These results are consistent with those of Kuria (2013), who discovered that listed enterprises used greater debt over the research period.

The profitability of registered did not correlate with capital structure, firm size, or leverage. The correlation coefficients were.085,.204, and.302. Operating effectiveness and Tea company profitability were modestly associated, with a correlation value of -.328. Profitability and firm size only demonstrated a weakly correlated association, with correlation values of.114 and.249, respectively. The results support Gichangi's (2014) finding that profitability and capital structure have a negative relationship.

According to the findings, independent variables were responsible for an 18% shift in the profitability of tea enterprises. Because the probability values for capital structure and firm size were greater than 5%,.908 and.082, respectively, they were not significant. Tale (2014), who concluded that capital structure and financial performance were not significantly correlated, provided support for the findings. Because their p-values were less than 5%,.000 and.005, respectively, operational effectiveness and financial leverage were significant. The outcomes supported Kyalo's (2013) conclusions that operations efficiency was important.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, RECOMMENDATIONS

5.1 Introduction

Based on the goal of this study, the chapter provides summary findings, a conclusion, and recommendations for more research.

5.2 Summary of Findings

The purpose of this research was to investigate how Kenyan tea firms' profitability was affected by their capital structure. Operating effectiveness, company size, and financial leverage were the control factors for the study, whereas capital structure was the independent variable. A descriptive cross-sectional research design was adopted for the investigation. SPSS software was used for the analysis of secondary data that was gathered from the websites of the KTDA and various companies. The research used annual data from Kenyan tea firms for the five-year period from 2017 to 2021.

According to the findings of correlation research, capital structure and profitability have a marginally favourable link. The study also revealed a substantial inverse association between operating efficiency and profitability of Kenyan tea enterprises, as opposed to weak or even positive relationships between firm size and profitability and between profitability and financial leverage. However, it was discovered that there was no statistically significant correlation between any of the independent factors and the profitability of Kenyan tea enterprises.

The predictor variables utilized in this study accounted for 17.8% of fluctuations in the dependent variable, according to the R-square value of the co-efficient of determination, which was 0.178. This suggests that 82.2% of changes in the profitability of Kenyan tea producers are caused by factors outside the purview of this model. The significant value calculated from the table. This shows that the multiple regression model was statistically significant overall and that it is an effective model for forecasting how the independent factors selected to affect the profitability of Kenyan tea producers will interact.

If all of the independent variables employed in the study had a value of zero, the profitability of tea companies would be -0.180, according to the regression results. Furthermore, it has

been found that a unit increase in capital structure will cause a -0.005 decrease in profitability. However, an increase in company size would raise profitability by 0.010, an increase in financial leverage would increase profitability by 0.008, and an increase in operating efficiency would decrease profitability by -0.005.

5.3 Conclusion

The study finds that, albeit not significantly, capital structure, operating efficiency, company size, and financial leverage have an impact on the profitability of Kenyan tea companies. According to the analysis, the capital structure had no bearing on the profitability of Kenyan tea companies. The study ultimately concludes that tea companies' increased use of debt financing results in a slight decline in profitability. Increased business size result in an increase in profits of tea companies, though not to a substantial amount, according to the study, which indicated that firm size had a negligible impact on profitability. This study shows that increasing levels of financial leverage negatively affect the profitability of tea companies, though not significantly. Operating efficiency was found to have a statistically significant association with profitability.

The study's findings show that the independent variables, capital structure, firm size, operating efficiency, and financial leverage have a small but significant impact on tea companies' profitability, explaining just 17.8% of changes in the dependent variable. Therefore, based on the p value in the ANOVA summary, it is sufficient to draw the conclusion that these factors have no appreciable impact on profitability. The five independent variables account for 17.8% of changes in profitability, which means that the remaining 82.2% of variations in profitability are explained by variables not included in the model.

5.4 Policy Recommendations

To guarantee that the enterprises retain capital adequacy, the study suggests that an adaptable ratio of debt to equity be set. Thus, tea companies may be able to fulfill their financial obligations and take advantage of investments that may offer lucrative returns.

Before choosing to use additional investment strategies, such as debt and leverage, tea companies should use all their retained earnings. As a result, the existing funds will be used

to their fullest potential and investments will be made accurately, reducing unnecessary spending.

Before determining which investment is the best to make, top management should consider all possible options. By doing this, businesses will be sure to allocate their resources as efficiently as possible and invest in important areas.

5.5 Limitations for the Study

This study covered the five-year period from 2017 to 2021. If the findings would hold over a longer study period is still unknown. Furthermore, it is doubtful that studies of a comparable nature would appear prior to 2017. A longer research period is more credible since it will account for significant events that were not taken into consideration in this study.

26 Tea firms were used because of time and resource constraints. The researcher obtained enough information so that it could be adequately examined because some businesses were reluctant to submit their financial records and others had bad record keeping.

Due to time restrictions, an exploratory study to determine the causes and effects of the relationship between capital structure and profitability may have been more suited for the researcher to do. This may have provided more information about the capital structure's long-term viability and how it affects profitability. Other than those mentioned in the report, there are other elements that have an impact on tea companies' profitability (capital structure, firm size, leverage, and efficiency). They cover topics not included in this study, such as management efficiency index and diversification. To increase the study's level of accuracy, these are significant elements that might have been considered.

5.6 Suggestions for Further study

This study employed secondary data and focused on the capital structure and profitability of Kenyan tea firms. To complement this research, a research study that collects data from primary sources, such as extensive surveys and interviews covering all tea firms in Kenya, is advised.

In a related study, return on assets, a crucial profitability indicator that contrasts a company's annual profitability in proportion to equity, can be used as the dependent variable. Any

business's goal is to maximize shareholder wealth and return on assets is a gauge of how much money the company is getting back from its assets.

Future researchers should conduct a comparable study over a long period of time, say 10 years, due to changes in technology and the regulatory system. Therefore, compare the two and come to firm conclusions based on the data.

REFERENCES

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. [Article]. *Journal of Risk Finance*, 6(5), 438-445.

Ben-Shahar, H. (1968). The Capital Structure and the Cost of Capital: A Suggested Exposition. *The Journal of Finance*, 639-653.

Berger, A. N., & Di Patti, B. (2006). *Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry* (Vol. 30, pp. 1065-1102).

Business Daily. (2022). "Tea Earnings Rise to shs. 136 Billion". Retrieved on 9th September 2022, from https://www.businessdailyafrica.com/bd/markets/commodities/tea-earnings-rise-to-sh136-billion-3692578.

Chen, L.-J., Jung, C., & Chen, S.-Y. (2011). *How the Pecking-Order Theory Explains Capital Structure. Taiwan.*

Chinoda, T. (2014). The Determinants of Commercial Banks Profitability in Zimbabwe (2009-2014). IOSR *Journal of Economics and Finance*, 5(6), 69-80

Dejan, E., & Almir, A. (2013, June 20). *Calculation of average weighted cost of capital for individual shares of Sarajevo and Banja Luka stock exchange*. *Zadec Ccost of capital tia.*

Galindo, R. B. (2011, May). *Corporate Leverage, The Cost of Capital and the Financial Crisis* in Latin America. Sacramento.

Gapenski, L. C. (1987). *An empirical study of the relationships between leverage and capital costs for electric utilities*. Public Utility research Centre. Florida, United States of America.

Gedajlovic, E. & Shapiro, D. M. (2002). Ownership Structure and Firm Profitability in Japan. *Academy of Management Journal*, 45 (2), 565-575.

Gichangi, A. (2014) studied the relationship between capital structure and profitability of listed non-financial firms in Kenya, *Unpublished MBA Projects*, School of Business, University of Nairobi

Gichuhi. L. N. (2016). *Effects of capital structure on profitability of firms listed at the NSE.* Unpublished MBA project University of Nairobi.

Gill, A. & Nahum, B. (2013). The effect of capital structure on profitability. Evidence from the United States, *International Journal of Management*, 28, 4, 1, 3-15.

Huang, G., & Song, F. M. (2006). The determinants of capital structure: Evdence from China. *China Economic Review*, 14-36.

Iavorskyi, M. (2013). *The Impact of Capital Structure on Firm Performance*: Evidence from Ukraine.

Ibrahim, E.E. (2009). The impact of capital-structure choice on firm performance: Empirical evidence from Egypt. *Journal of Risk Finance*, 10(5), 477-487.

Jensen M.C., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency cost and capital structure. *Journal of Financial Economics* 3 (3), 305-360.

KALRO Institute. (2022). TRI Home Introduction. https://www.kalro.org/tea/homeintroduction

Khadka, H. B. (2006). Leverage and the Cost of Capital: Some Tests Using Nepalese Data. *The Journal of Nepaleses Business Studies*, 85-91.

Kothari, C. R. (1990). *Research Methodology: Methods & Techniques*. Jaipur: New Age.

Kyalo, S. M. (2013). *An Evaluation of the Factors Affecting Profitability of Commercial Banks in Kenya*. Unpublished MBA Project. Moi University

Kumar, K.B. Rajan, R.G. & Zingales, L. (2001). What determines firm size, working paper, University of Chicago.

Kuria, T, (2013) did a study on the effect of capital structure on the financial performance of commercial Banks in Kenya, *Unpublished MBA Projects*, School of Business, University of Nairobi

Lipunga, A. M. (2014). Determinants of Profitability of Listed Commercial Banks in Developing Countries: Evidence from Malawi. *Research Journal of Finance and Accounting*, 5(6), 41-49

Mendell, B.C. & Mishra, N., (2011). Capital structure in the United States forest products industry, the influence of debt and taxes, *Forest Science*, 52(5), 540-548

Modigliani F., & Miller M.H. (1958). The cost of capital, corporation finance and the theory of investment, *American Economic Review*, Vol. 48 No.3, pp.261-97

Mohammad, A., Mir-Farhad. S. M., & Hojjatollah D. (2015). Determinants of capital structure: an empirical study of firms in Iran. *International Journal of Law and Management*, Vol.57 No.1, pp.53-83

Morris, M. R. (2001). *Creating Shareholder Value Through Capital Structure Optimization*. Value Incorporated.

Mwangi, L. W., Makau, S. M., & Kosimbei , G. (2014). Relationship between Capital Structure and Performance of Non-Financial Companies. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics*, 72-90.

Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*, 15(2), 81-102.

Myers, S. C., & Majiluf, N. S. (1984). Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have. *National Bureau of Economic Research.*

Ogebe, J. O., & Kemi, A. (2013). The Impact of Capital Structure on Firm's Performance in Nigeria.

Ongore, V. O. & Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252

R.M. Gesimba, M.C. Langat, G. Liu and J.N. Wolukau , 2005. The Tea Industry in Kenya; The Challenges and Positive Developments. *Journal of Applied Sciences*, 5: 334-336.

Rono, B. K., Wachilonga, L. K. & Simiyu, R. S. (2014). Assessment of the Relationship between Interest Rate Spread and Performance of Commercial Banks Listed In Nairobi Securities Exchange. *International Journal of Financial Economics*, 3(2), 98-112

Sagala, G. (2003). The relationship between cost of capital and leverage for companies quoted on the Nairobi Stock Exchange.

Saunders, N. K., Thornhill, A., & Lew, P. (2009). *Research Methods for Business Students* (5th Ed ed.).

Sawe, S. C. (2011). *Determinants of Commercial Banks Profitability in Kenya*. Unpublished MA (Econ.) Project. University of Nairobi

Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (5th ed.). Hoboken, N.J./Chichester: John Wiley and Sons.

Tale, N. (2014). Relationship between capital structure and performance of nonfinancial listed firms at the Nairobi securities exchange, *Unpublished MBA project*, School of Business, University of Nairobi

Tariq, W., Muhammad, U., Haseeb, Z., Inam, A. & Imran A. (2014). Determinants of Commercial Banks Profitability: Empirical Evidence from Pakistan. *International Journal of Accounting and Financial Reporting*, 4 (2), 1- 22

Usoro, N. J. (2022). *Relationship between capital structure and financial performance of U.S. retail bank* (Order No. 28969178).

Wagacha, Mbui (2001); *A Survey of Enterprise Attitudes towards Kenya's Capital Market*, IPAR Discussion Paper No. 028

Yegon, C., Cheruiyot, J., Sang, J., & Cheruiyot, P. (2014). The Effects of Capital Structure on Firm's Profitability: Evidence from Kenya's Banking Sector. *Research Journal of Finance and Accounting*, 152-159.

APPENDICES

Appendix I: List Tea Companies in Kenya

1. Arroket factory – Sotik Tea Company limited.
2. Chagaik factory – UTK limited.
3. Changana factory – JFK limited.
4. Changoi tea factory – WTK limited.
5. Chebut tea Factory Company limited.
6. Chelal tea.
7. Chemoni factory – EPK limited.
8. Chinga tea Factory Company limited.
9. Chemogonday factory – JFK limited.
10. Eastern produce Kenya limited.
11. Eberege tea Factory Company limited.
12. Gacharage tea Factory Company limited.
13. Gachege tea Factory Company limited.
14. Gathuthi tea Factory Company limited.
15. Gatitu tea factory.
16. Gatunguru tea Factory Company limited.
17. Gianchore tea Factory Company limited.
18. Githambo tea Factory Company limited.
19. Githongo tea Factory Company limited.
20. Gitugi tea Factory Company limited.
21. Igembe tea Factory Company limited.
22. Ikumbi tea Factory Company limited.
23. Imenti tea Factory Company limited.

24. Iriani tea Factory Company limited.
25. Itumbe tea Factory Company limited.
26. James Finlay (Kenya) limited.
27. Jamji factory – UTK limited.
28. Kagwe tea Factory Company limited.
29. Kaimosi tea Factory Company limited – WTK limited.
30. Kaisugu tea Factory Company limited.
31. Kambaa tea Factory Company limited.
32. Kangaita tea Factory Company limited.
33. Kanyenyaini tea Factory Company limited.
34. Kapchebet tea Factory Company limited.
35. Kapcheluch tea factory limited.
36. Kapchorua Tea Company limited.
37. Kapkatet Tea Company limited.
38. Kapkoros tea Factory Company limited.
39. Kapsara tea Factory Company limited.
40. Kapset tea Factory Company limited.
41. Kapsumbeiwa factory – EPK limited.
42. Kaptumo tea Factory Company limited.
43. Karirana estates limited.
44. Kathangariri tea Factory Company limited.
45. Williamson tea Kenya limited.
46. Weru tea Factory Company limited.
47. Unilever tea factory limited.
48. Toror tea Factory Company limited.

49. Tombe tea Factory Company limited.
50. Tirgaga tea Factory Company limited.
51. Tinderet tea estate (1989) limited _ WTK limited.
52. Kebirigo tea Factory Company limited.
53. Kericho factory – UTK limited.
54. Kibwar limited.
55. Kiptagich tea estate limited.
56. Mara Mara instant – JFK limited.
57. Mudete tea Factory Company limited.
58. Nandi tea estates – Nandi hills.
59. Nyayo tea zones development corporations.
60. Nyankoba tea Factory Company limited.

Appendix II: Data Collection

Tea Company Name	Return on Equity	Capital structure	Operating efficiency	Firm size	Financial leverage
Gitugi 01	0.01	0.03	0.94	21.03	0.89
	0.02	0.03	0.81	21.06	0.89
	0.03	0.11	0.80	21.05	0.81
	0.04	0.10	0.80	21.10	0.79
	0.02	0.06	0.90	21.08	0.64
Kangaita	0.00	0.02	0.97	21.18	1.08
	0.03	0.02	0.84	21.28	1.18
	0.02	0.03	0.84	21.10	0.71
	0.04	0.02	0.80	21.15	0.69
	0.01	0.02	0.91	21.09	0.55
Imenti	0.05	0.11	0.84	21.51	2.69
	0.11	0.10	0.73	21.47	2.01
	0.06	0.08	0.79	21.43	1.61
	0.03	0.06	0.87	21.44	1.33
	0.01	0.03	0.94	21.46	1.25
Ogembo/Eberege	0.05	0.14	0.85	21.29	1.58
	0.02	0.08	0.86	21.22	1.31
	0.03	0.06	0.83	21.04	0.67
	0.00	0.09	0.95	21.04	0.62
	0.00	0.07	0.96	20.96	0.45
Kebirigo	0.03	0.05	0.89	20.92	1.55
	0.01	0.03	0.97	20.96	1.55
	0.02	0.04	0.94	20.76	0.80
	0.05	0.06	0.82	20.79	0.75
	0.02	0.03	0.95	20.75	0.58
Gatunguru	0.02	0.12	0.98	21.38	2.42
	0.03	0.06	0.85	21.35	1.24
	0.02	0.05	0.82	21.28	0.96
	0.02	0.04	0.83	21.31	0.89
	0.03	0.09	0.78	21.37	0.92
Ndima	0.01	0.06	0.10	21.16	0.96
	0.04	0.04	0.82	21.27	1.05
	0.04	0.01	0.81	21.18	0.77
	0.03	0.02	0.86	21.14	0.64
	0.02	0.02	0.89	21.16	0.62
Kimunye	0.01	0.05	0.96	21.39	1.10
	0.04	0.03	0.82	21.48	1.11
	0.03	0.10	0.83	21.42	0.90
	0.04	0.06	0.81	21.42	0.76
	0.00	0.03	1.01	21.39	0.63

Kapkatet	0.01	0.00	0.98	21.37	2.38
	0.06	0.01	0.09	21.48	2.57
	0.02	0.05	0.91	21.61	2.63
	0.02	0.26	0.91	20.74	1.57
	0.03	0.21	0.86	20.63	1.34
Kiamokama	0.00	0.08	1.00	21.36	1.43
	0.00	0.24	0.99	21.50	2.10
	0.03	0.13	0.88	21.12	0.91
	0.00	0.10	0.97	21.11	0.91
	-0.01	0.11	1.05	21.00	0.76
Tegat	0.01	0.34	0.97	21.48	3.52
	0.07	0.25	0.89	21.57	3.61
	0.08	0.14	0.80	21.35	0.23
	0.03	0.07	0.93	21.37	1.66
	0.06	0.14	0.85	21.39	1.60
Kionyo	0.01	0.10	0.97	21.40	1.65
	0.04	0.09	8.41	21.38	1.50
	0.02	0.17	0.90	21.46	1.62
	0.02	0.12	0.91	21.41	1.35
	0.01	0.08	0.97	21.42	1.23
Nyankoba	0.03	0.19	0.89	20.91	1.83
	0.02	0.14	0.94	20.96	1.84
	0.06	0.06	0.79	20.79	1.08
	0.05	0.01	0.83	20.80	0.95
	0.01	0.00	1.06	18.40	0.71
Momul	0.01	0.01	0.94	21.29	6.20
	0.06	0.02	0.91	21.39	6.30
	0.01	0.00	0.96	21.10	2.32
	0.06	0.00	0.90	21.21	2.42
	0.01	0.00	0.95	21.47	3.33
Gasharage	0.01	0.28	0.96	21.07	2.47
	0.00	0.20	1.00	21.09	2.12
	0.01	0.16	0.98	21.00	1.61
	0.01	0.10	0.98	20.95	1.48
	0.01	0.06	0.98	20.97	1.52
Kiegoi/Igembe	-0.02	0.07	0.97	21.48	1.82
	0.05	0.05	0.82	21.42	1.60
	0.06	0.03	0.80	21.33	0.91
	0.11	0.08	0.84	21.40	3.39
	0.03	0.07	0.96	21.35	2.95
Njunu	0.01	0.04	0.98	21.03	2.10
	0.05	0.07	0.85	21.09	2.09
	0.00	0.04	0.99	20.96	1.28

	0.01	0.04	0.98	21.03	1.69
	0.13	0.09	0.84	20.88	3.11
Rukuriri	0.01	0.01	0.97	21.32	1.47
	0.03	0.01	0.85	21.36	1.32
	0.04	0.01	0.83	21.26	0.96
	0.17	0.00	0.82	21.23	3.50
	0.03	0.00	0.97	21.18	2.97
Iriaini	0.01	0.03	0.99	21.03	0.82
	0.02	0.02	0.85	21.06	0.88
	0.02	0.01	0.83	20.95	0.55
	0.02	0.01	0.82	20.97	0.52
	0.01	0.01	0.94	21.02	0.53
Sanganyi	0.05	0.08	0.86	21.17	1.98
	0.01	0.03	0.99	21.12	1.75
	0.03	0.11	0.89	21.06	1.20
	0.03	0.12	0.92	21.11	1.21
	0.04	0.14	0.83	21.10	1.02
Nyansiongo	0.03	0.16	0.88	20.98	1.25
	0.02	0.08	0.93	21.05	1.30
	0.04	0.02	0.77	21.00	0.88
	0.14	0.20	0.75	21.13	2.84
	0.07	0.13	0.89	21.03	2.20
Mogogosiek Tea Fctory	0.01	0.14	0.98	22.04	1.60
	0.02	0.09	0.95	22.16	1.77
	0.02	0.18	0.91	21.99	1.32
	0.01	0.23	0.96	21.87	1.57
	0.08	0.34	0.84	22.00	1.85
Thumaita	0.01	0.02	0.98	21.28	1.39
	0.04	0.00	0.83	21.28	1.18
	0.03	0.09	0.88	21.24	0.97
	0.09	0.18	0.86	21.30	3.85
	0.06	0.10	0.88	21.21	2.76
Kapchorua Tea Kenya	-0.04	0.00	2.42	21.43	0.34
	0.10	0.00	0.42	21.64	0.35
	-0.09	0.00	26.01	21.43	0.30
	0.03	0.00	0.88	21.39	0.27
	0.09	0.00	0.74	21.46	0.33
Williamson Tea Kenya	0.01	0.03	0.90	22.22	0.34
	0.13	0.01	0.33	22.32	0.35
	-0.01	0.00	1.24	22.17	0.30
	0.06	0.00	0.62	22.09	0.27

	-0.01	0.00	0.99	22.04	0.33
Sasini PLC	0.03	0.00	0.57	22.77	0.10
	0.04	0.00	0.47	22.77	0.14
	0.12	0.00	1.01	22.93	0.14
	0.01	0.00	0.79	22.95	0.07
	0.02	0.00	0.61	22.97	0.09