



The Strategic
JOURNAL *of* **Business & Change**
MANAGEMENT

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)



www.strategicjournals.com

Volume 10, Issue 4, Article 089

**FIRM FINANCIAL INDICATORS AND SHARE RETURNS ON AGRICULTURAL FIRMS LISTED AT NAIROBI
SECURITIES EXCHANGE, KENYA**

Elizabeth Ngina Kilonzo

**FIRM FINANCIAL INDICATORS AND SHARE RETURNS ON AGRICULTURAL FIRMS LISTED AT NAIROBI
SECURITIES EXCHANGE, KENYA**

Kilonzo, E. N.

MBA Student, School of Business, Economics and Tourism, Kenyatta University, Kenya

Accepted: November 5, 2023

DOI: <http://dx.doi.org/10.61426/sjbcm.v10i4.2826>

ABSTRACT

This study focused on internal and external determinants suspected to cause differences in the share returns. The specific objectives aimed at examining the effects of firm-specific financial indicators on share return of seven Agricultural sector firms listed at the Nairobi Securities Exchange, Kenya. With the moderating variable of effective tax rate, the study sought to analyze the effects of liquidity, leverage, profitability and firm size on share returns of Agricultural firms therein listed. The share return was measured by price earnings ratio. Five theories anchored this study with the aim of grounding it based on scholarly work. Trade-off theory, Agency theory, Capital structure theory, Resource based theory and Tax clientele effect theory. A population study was conducted on all the 7 firms over the 2018-2022 sample period using secondary data, to be obtained using a data capture sheet. Using the Statistical Package for Social Sciences, the collected data, the variables were multiple- regressed to produce descriptive statistics of bivariate relationship. The model was diagnosed for heteroscedasticity, normality of distribution, multicollinearity and linearity. For generalization purposes, significance of the resulting statistics was interpreted with 95% confidence. The study established a statistically significant positive relationship between liquidity, leverage, profitability and firm size on share returns of agricultural firms listed at NSE, Kenya ($\beta=67.1949$, $p=.0408<0.05$; $\beta=77.70727$, $p=.018<0.05$; $\beta=24.849$, $p=.0241<0.05$; $\beta=12.014$, $p=.022<0.05$ respectively). The study further established that tax had a significant moderating effect in the relationship of the Firm Financial Indicators (liquidity, leverage, profitability and firm size) and share returns of agricultural firms listed at NSE, Kenya based on the changes in R^2 of 14% after the introduction of tax in the interaction. The research output was expected to advise strategy of investment in the stock markets, enrich academic research and suggest areas for further research.

Key Words: *Liquidity, Leverage, Profitability, Firm Size, Nairobi Securities Exchange, Financial Indicators*

CITATION: Kilonzo, E. N. (2023). Firm financial indicators and share returns on agricultural firms listed at Nairobi Securities Exchange, Kenya. *The Strategic Journal of Business & Change Management*, 10 (4), 1407 – 1426. <http://dx.doi.org/10.61426/sjbcm.v10i4.2826>

INTRODUCTION

Share return, also referred to as stock return or equity return, provides insight into how an investment in a particular company's shares has fared over time (Gormsen & Koijen, 2020). The purpose of this research is to look into the relationship between firm financial indicators such as liquidity, profitability, leverage, firm size, and share returns of agricultural firms listed on the NSE. Globally, share returns are an important component of the performance of publicly traded companies in the United States, China, and the United Kingdom. The S&P 500 is the primary stock market index in the United States, measuring the performance of the top 500 companies listed on the New York Stock Exchange (NYSE) and the NASDAQ (Alareeni & Hamdan, 2020). AlAli, (2020) According to the Shanghai Composite Index, the Shanghai Stock Exchange's primary stock market index, it measures the performance of the largest companies listed on the Shanghai Stock Exchange. The Financial Times Stock Exchange 100 Index (FTSE 100) is the primary stock market index in the United Kingdom, measuring the performance of the top 100 companies listed on the London Stock Exchange (Elmghamez & Olarewaju, 2022). Share returns of these companies are closely monitored by investors and analysts as an indicator of the health of the USA, China and UK economy.

Profitability assesses how effectively a company can convert its revenue or sales into earnings or profits, which are crucial for sustaining and growing the business. Profitability is a key financial metric used to evaluate a company's financial health and performance. It provides insights into the company's efficiency, effectiveness, and overall financial strength (Kartikasari & Merianti, 2016). In the context of agricultural firms listed on the NSE, profitability is crucial since firms forecast performance. Increased profitability is a resultant of higher share returns because it indicates that a firm is generating strong returns on its investments.

However, government regulation, including taxes,

can significantly impact the financial performance of agricultural firms. Taxes can directly affect firms' financial indicators by reducing profitability through higher tax expenses, affecting liquidity through cash outflows for tax payments, and influencing leverage through tax deductibility of interest expenses (Nyang'oro, 2016). In empirical research and statistical analysis, a moderating variable (also known as an interaction variable) helps to explain or clarify the relationship between two other variables, and it can strengthen or weaken that relationship based on its influence. Kubick *et al* (2015) posits that a higher tax expenses can reduce profitability, leading to lower share returns as investors perceive lower profitability as a risk. Similarly, cash outflows for tax payments can affect liquidity, leading to higher share returns if firms have insufficient liquidity to meet tax obligations.

Agriculture is a crucial sector in many economies as source of food, employment, and income. In Kenya, agriculture is a critical sector, accounting for about 33% of GDP employing over 70% of the population (Pius, Strausz & Kusza, 2021). Agriculture also contributes significantly to the country's exports, with tea, coffee, and horticultural products being the main agricultural exports (Muraya, 2017). As of September 2021, there were seven agricultural firms listed on the NSE, which accounted for about 11% of the listed firms. These firms were classified under the agricultural sector, which also included companies in the agro-processing and horticultural sub-sectors (NSE, 2021).

The rules governing the NSE under Capital Markets Authority (CMA) in Kenya (Outa & Waweru, 2016). The CMA is responsible for overseeing and regulating the securities market, including the listing, trading, and disclosure requirements of companies listed on the NSE. The rules are designed to ensure transparency, fairness, and integrity in the securities market, and to protect the interests of investors. In order to be listed on the NSE, agricultural firms, like any other company,

must meet certain listing requirements set by the CMA (Outa & Waweru, 2016). Meeting requirements and standards is essential for companies to build trust with investors, maintain access to capital markets, and foster sustainable growth. Additionally, adherence to these criteria contributes to the long-term success and resilience of businesses in a competitive global marketplace (Lekaram, 2014).

According to Kinyua, (2016), listing on the NSE can provide several benefits to agricultural firms. Firstly, it can enable them to raise capital for growth and expansion by issuing shares to investors. This can help agricultural firms finance their operations, invest in modern farming techniques, and expand their market share. Secondly, the Nairobi Securities Exchange (NSE) is a critical platform for agricultural firms in Kenya to list their shares and raise capital for growth and expansion (CMA, 2020). According to Authority, (2020) the NSE is under CMA and has rules governing listing requirements, trading, and compliance.

Statement of the Problem

The relative performance of shares of agricultural firms listed on the Nairobi Securities Exchange (NSE) compared to other stocks in the market can be influenced by a variety of factors (NSE report, 2015). Different firms operating within the same business environment can exhibit varying share returns to investors. Several factors contribute to these differences in share returns among companies operating in the same industry or business environment. Scholars and researchers in finance have dedicated their efforts to uncover the factors that contribute to these differences. These studies typically explore a wide range of both internal and external determinants that may influence share returns.

Agriculture is a key contributor to the Kenyan economy, according to an FAO report (2019), with a direct contribution of 26% to the Gross Domestic Product (GDP) and another 27% added indirectly through links with other sectors of the economy.

Additionally, the report adds that agriculture is the major employer with its 40% of the 70% of people in rural areas. Further, agriculture spurs economic growth under Kenya's vision 2030. Despite this significance in the economy, report by KNBS (2022) indicates that agriculture sector decreasing in performance by a big margin in comparison with other sectors by recording negative growth the entire year. Further, a review of a report by NSE (2022) reveals that out of 64 listed companies, agricultural firms are 7, comprising of 10.9% of all listed firms in the NSE. The report further reveals that the shares of the listed agricultural firms have been lagging behind the remaining listed firms; majority of the investors prefer firms operating in other sectors whose performance is not influenced by factors beyond human control such as weather. This justifies the need to establish whether there are firm financial characteristics that affect the share returns among the listed agricultural firms.

A review of literature demonstrates that studies done on firm characteristics and their influence on share returns have mainly focused on listed companies in other sectors such as financial firms (Njiru, 2019). Other studies, for instance by Githira, Muturi and Nasieku (2019), have focused on the overall companies without categorizing them into sectors. Studies that have specifically focused on firm specific factors for agricultural listed companies have been mainly on financial performance and not share returns; for instance, Eysimkele and Koori (2019); Gerio, Egessa and Alala (2021). Theoretically, there have been few studies that have investigated Resource based theory, Capital structure theory, Trade-off theory, Agency theory and Tax clientele effect theory on Firm Financial Indicators and Share Returns on Agricultural Firms Listed at NSE, Kenya. Studies that have also analyzed Firm Financial Indicators and Share Returns on Agricultural Firms Listed at NSE, Kenya using panel data is also scanty.

Based on these arguments and the lack of agreement among previous scholars, there was ample reason to conduct a study on firm financial

indicators and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE).

Objectives of the Study

The study's general objective was to assess the Firm Financial Indicators and Share Returns on Agricultural Firms Listed at NSE, Kenya. The specific objectives were;

- To analyze the effects of liquidity on share returns of agricultural firms listed at NSE, Kenya.
- To assess the influence of leverage on share returns of agricultural firms listed at NSE, Kenya.
- To evaluate the relationship between profitability and share returns of agricultural firms listed at NSE, Kenya.
- To investigate the influence of firm size on share returns of agricultural firms listed at NSE, Kenya.
- To analyze the moderating effect of tax on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya.

The study was guided by the following hypotheses

- H01: Liquidity has no significant effect on share returns of agricultural firms listed at NSE, Kenya.
- H02: Leverage has no significant effect on share returns of agricultural firms listed at NSE, Kenya.
- H03: Profitability has no significant effect on share returns of agricultural firms listed at NSE, Kenya.
- H04: Firm size has no significant effect on share returns of agricultural firms listed at NSE, Kenya.
- H05: Tax does not have significant moderating effect on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya.

LITERATURE REVIEW

Theoretical Literature Review

Base on the study on a theoretical foundation that

encompasses the following theories: Liquid Asset theory, Agency theory, Capital structure theory, Resource-based theory, and Tax clientele effect theory. Below, I'll provide a brief overview of each of these theories and their potential relevance to your study in the context of agricultural firms listed on the Nairobi Securities Exchange (NSE) in Kenya.

Liquid Asset Theory of Liquidity

Based on the work of Diamond and Dybvig (1983), focuses on the importance of financial intermediaries maintaining a pool of liquid assets to fulfill short-term obligations and manage liquidity risk. It appears that you intend to apply this theory to the context of listed firms on the Nairobi Securities Exchange (NSE) in Kenya. Previous research supports the position that listed firms maintain a large pool of liquid assets to meet obligations. While Bassey, Tobi, Bassey and Ekwere (2016), Abang-Anoh (2012) and Ibe (2013) support the proposition that banks should maintain a large pool of short-term asset. Using the Liquid Assets theory of liquidity as the basis for analyzing the effects of liquidity on share returns of agricultural firms listed on the Nairobi Securities Exchange (NSE) in Kenya is a sound approach. This theory provides a theoretical framework to explore how the management of liquid assets within these firms can impact their share returns.

Capital Structure Theory

Capital Structure Theory, which was originally proposed by Franco Modigliani and Merton Miller in 1958. This theory is a fundamental concept in finance and corporate finance and has important implications for understanding how a firm's capital structure, including its mix of debt and equity, impacts its overall value (Cerkovskis, Gajdosikova & Ciurlau, 2022). The theory agrees that leverage has no effect on a firm's value because of tax benefits (Kusuma & Kitri, 2022).

The theory's main content is based on the assumptions of perfect capital markets, no taxes, no transaction costs, and homogeneous investor expectations (Zerbo & Hien, 2020). Knivsflå, (2023) suggests that, a firm's optimal capital structure is

attainable if cost of debt is equivalent to the cost of equity, which occurs at minimization of weighted average cost of capital. This theory is relevant to the study as it provides a theoretical framework for understanding the impact of leverage on a firm's cost of capital and ultimately its value, which can indirectly influence share returns.

Agency Theory

The Agency Theory is a fundamental concept in corporate finance and governance that focuses on the relationship between the managers (agents) of a company and its shareholders (principals) (Vitolla, Raimo & Rubino, 2020). This creates an agency problem, where shareholders cannot fully monitor and control the actions of managers. The theory suggests that higher profitability due to the plans of managers and shareholders by increasing firm value and managers' value of equity ownership (Kumala & Siregar, 2021).

The agency theory explains how the management team of agricultural firms can influence the profitability of the firm. According to Ali, (2020), the theory suggests that the management team may make decisions that benefit their interests, such as increasing their salaries or bonuses, rather than maximizing shareholder value. This can lead to a decrease in profitability, which can, in turn, affect the share returns of the firm.

Application of the Agency Theory to your study on the relationship between profitability and share returns of agricultural firms listed on the Nairobi Securities Exchange (NSE) in Kenya is highly relevant and insightful. By considering the potential conflicts of interest between the management team and shareholders, you can delve into several important aspects.

The Resource-Based Theory (RBT)

The Resource-Based Theory (RBT), which is indeed a significant management theory in the field of strategic management and corporate strategy. RBT places a strong emphasis on how a firm's distinctive resources and capabilities can serve as the foundation for achieving and sustaining

competitive advantage and superior financial performance (Barney, 1991). This theory divides a firm's resources into tangible and intangible resources, with tangible resources including physical assets such as machinery and intangible resources including knowledge, reputation, and organizational culture (Barney, 1991), among others.

According to the Resource-Based Theory, (RBT) larger agricultural firms listed at NSE, Kenya may have a competitive advantage due to their size, which may positively influence their share returns (Ehiedu & Priscilla, 2022). Steiber and Alänge, (2021) suggests that larger firms may have superior resources for R&D, marketing, and distribution, thus leading to greater efficiency and effectiveness in operations. As a result, the RBT is relevant to the study because it provides a theoretical foundation for understanding the potential impact of firm size on share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE).

Tax-Clientele Effect Theory

Tax-Clientele Effect Theory suggests that taxes can have an impact on the behavior of investors based on their tax status, and this can influence the share returns of companies (Rünger, 2021). The theory was proposed by DeAngelo and Masulis in 1980 and it argues that investors who are taxed at different rates have different preferences for the types of assets they hold in their portfolios. For example, investors who are subject to higher tax rates may prefer to hold tax-exempt bonds, while investors who are taxed at lower rates may prefer to hold higher-risk, higher-return assets like stocks (Elert *et al.*, 2019)

Tax-Clientele Effect Theory implies that the tax status of investors in agricultural firms listed at NSE, Kenya may influence their investment decisions and, consequently, the share returns of these firms. For instance, if a large portion of investors in agricultural firms listed at NSE, Kenya are subject to high tax rates, they may prefer to invest in tax-exempt bonds rather than in stocks,

which could lower demand for shares and lower share returns (Spreen & Gerrish, 2022). The Tax-Clientele Effect Theory indeed provides a valuable framework for understanding how tax considerations can influence the investment decisions of shareholders, which can, in turn, impact share returns.

The Capital Market Theory

Sharpe (1964), Lintner (1965), and Mossin (1966) independently developed the standard Capital Asset Pricing Model (CAPM) based on Markowitz's (1952) meanvariance optimization framework. The standard CAPM is a single premium linear equilibrium pricing model that provides a framework for specifying and measuring investment risk in an efficient capital market, as well as developing relationships between expected security return and risk. The model is based on the idea that unsystematic risk can be eliminated by investing in a diverse portfolio, so investors only need to be compensated for bearing systematic risk, as measured by beta. In this case, all investors will hold the same risky portfolio but will vary the riskiness of their investment by increasing or decreasing their investment in the risk-free portfolio.

The CAPM is a widely used framework in finance for determining expected returns on assets and securities, but it does have certain simplifying assumptions and limitations that have been subject to critique (Merton, 1973). Also put to doubt is the notion of mean-variance efficiency and the actual components of the market portfolio (Uzair & Hanif, 2010). The assumptions of investor rationality and homogeneous investor expectations have also been challenged by empirical studies which have found significant influence of noise traders and heterogeneity in price formation (Shleifer & Vishny, 1997). CAPM cannot therefore represent perfectly the investor behavior in financial markets.

Fama and French (2015, 2016b) investigated whether investment (asset growth) and operating profitability could improve the FF3F model's

explanatory power. However, the model failed to account for average returns on low-profitability and aggressively invested small stocks in the United States. The Capital Market Theory will serve as the foundation for the NSE's analysis of share returns by listed firms in the Agriculture Sector.

Empirical Literature Review

The study conducted by Wanjala (2011) examining the effect of leverage on stock returns for companies listed at the Nairobi Securities Exchange (NSE) provides valuable insights into the relationship between financial leverage and stock performance. Wanjala (2011) study provides a foundation for understanding the relationship between leverage and stock returns in the context of the NSE. When incorporating this study into your empirical review, you can discuss how its findings relate to the broader topic of firm financial indicators and share returns for agricultural firms listed at NSE, Kenya. This study though conducted in NSE, it did not analyze the relationship between leverage and share returns of agricultural firms listed at NSE, Kenya which is the literature gap filled by current study.

Karimi (2020) conducted research in Iran on the effect of financial leverage on the trend of stock price fluctuations in companies listed on the Tehran Stock Exchange. The author used correlation analysis to analyze the data set from 2011 to 2018. Furthermore, the researcher used debt-to-equity ratios to regress stock price fluctuations. Data analysis revealed that financial leverage capital had a significant impact on the trend of stock price volatility. This study was conducted in Iran, and it did not examine the relationship between leverage and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), which is a gap in the literature that the current study fills.

Putri, Dewi, and Deni (2021) investigate the effect of profitability on share prices indirectly, using capital structure as the intervening variable, in a study on Indonesia's automotive sector- listed companies. The data is collected using

documentation, and Path Analysis is used to measure the association with a 95% confidence level. They calculate profitability using Return on Equity (ROE) and capital structure using Debt-to-Equity Ratio (DER). For the 2013-2017 sample period, all companies listed on the Indonesian Stock Exchange (BEI) are examined. According to the study findings, neither profitability nor capital structure have a significant negative effect on stock return, but profitability has a direct effect on stock return. This effect has no established significance. This study was conducted in Indonesian, and it did not examine the relationship between profitability and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), which is a gap in the literature that the current study fills.

Dewi, Dewa, Anak, and Gede (2021) investigated Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) as predictors of stock returns of companies listed on the Indonesian Stock Exchange (IDX). They obtained data from 83 of the 105 companies using non-participant observational techniques. Over the 2013-2017 sample period, the authors regressed NPM, ROA, and ROE on stock price changes (stock returns). Both ROA and NPM had significant positive effects on stock returns, according to the findings, while ROE had no effect. This study was conducted in Indonesian and did not examine the relationship between profitability and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), Kenya.

Anton, Thomas, and Jiri conducted a meta-analysis of the New York Stock Exchange in 2018). In order to determine the relationship between firm size and stock returns, they gathered 1,746 estimates of Asset Pricing Model slope coefficients from 102 publications. They discover that the size premium decreased over time due to a strong bias toward publishing negative slope coefficients, and thus the evidence was straddled. These findings cast doubt on asset pricing models and debunk the popularity of firm size as a risk proxy. This study was conducted

in the United States, and it did not examine the relationship between firm size and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), which is a literature gap filled by current research.

Visilov and Bergstrom (2010) investigate the Stockholm stock exchange in the three-factor asset pricing models for the small-firm effect, momentum effect, and book-to-market effect. They test the Capital Asset Pricing Model (CAPM) on 366 non-financial companies listed on the Stockholm Stock Exchange from 1997 to 2010. According to the findings, the small-firm effect, book-to-market value effect, and momentum effect are not reflected in the study, implying that CAPM is a stock return cross-section model and that Beta is still a well-established risk measure. This study was conducted in Sweden, and it did not examine the relationship between firm size and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), which is a gap in the literature that the current study fills.

Sang, Achla, and Hany (2003) conducted a study on 27 emerging markets to investigate the relationship between liquidity and stock returns. Liquidity was measured in this study using the turnover ratio, trading value, and turnover-volatility multiple. The control variables for the cross-sectional and time series analyses were world market beta, market capitalization, and book-to-market value. A positive correlation between liquidity and stock returns emerges from the time series analysis. This contradicts market microstructure theory, which holds that liquidity has a cross-sectional effect. As a result, the study concludes that the relationship holds in developing markets and vice versa. This study was conducted in China, and it did not examine the relationship between liquidity and share returns of agricultural firms listed on the Nairobi Stock Exchange (NSE), which is a gap in the literature that the current study fills.

Koech (2012) conducted another study that attempted to link liquidity and stock return. The

author sampled 41 firms listed on the Nairobi Securities Exchange between 2007 and 2011 and collected monthly data using a target population of 57 listed firms on the Nairobi Securities Exchange and a correlational research design. The turnover rate was used to represent liquidity, while the percent change in capital gains and dividends was used to represent stock returns.

METHODOLOGY

A descriptive census design was used in this study. The reason for using this research approach is that it is appropriate for studying associations between study variables and can also be used as an important linearity test. This research took a census of the 7 companies in the Agricultural sector of the NSE, to provide a comprehensive and accurate analysis of the financial indicators and share returns within this specific sector. Because the study is a census, no sampling is required. All seven companies in the target population were investigated. The study collected secondary data from financial statements published by firms in the Agricultural Sector on the NSE between 2018 and 2022. To collect data, Kenyatta University and NACOSTI approval was sought. Secondary data was gathered by the researcher. The study used panel data from a cross-section of listed agricultural firms in Kenya from 2018 to 2022. Exploratory

approaches (statistical charts and diagrams), bivariate description (using panel regression), and inferential analyses (significance tests) was used to analyze the collected data. The quantitative data collected was analyzed using SPSS version 22.

RESULTS AND DISCUSSIONS

Regression Analysis of Liquidity and Shares Return

The first study objective was to analyze the effects of liquidity on share returns of agricultural firms listed at NSE, Kenya. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Tables 1. The analysis shows that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group.

Hausman Test

In the panel data regression model testing the relationship between related party transaction and probability of distress, fixed effect model and random effect model were fitted and the Hausman test used to determine the appropriate multivariate model to adopt of the two. The Hausmann specification test results for the multivariate model between financial distresses determinants is shown in Table 1.

Table 1: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
RPT	2.89431	1.47832	1.14736	.
B =	b = consistent under Ho and Ha; obtained from xtreg			
Test: Ho:	inconsistent under Ha, efficient under Ho; obtained from xtreg difference in coefficients not systematic			
	chi2(1) = (b-B)'[(V_b-V_B)^(-1)](b-B)			
	8.14			
	Prob>chi2 =		0.037	

The null hypothesis of Hausman Test is that Random Effects model is preferable and since the results in Table 2. indicate P-value = 0.037 which is less than 0.05 confidence level, the null hypothesis is rejected and hence fixed effects model was

employed for the analysis of financial leverage. This implies that the most appropriate model to explain the relationship between financial liquidity and share returns of agricultural firms listed at NSE, Kenya was the fixed effects regression model.

Table 2: Regression Analysis of Financial Liquidity and Share Returns

Source	SS	df	MS		Number of obs	35
					F(1, 33)	4.53
Model	2046.26	1	2046.26149		Prob > F	0.0408
Residual	14893.3	33	451.313194		R-squared	0.1208
					Adj R-squared	0.1972
Total	16939.6	34	498.223438		Root MSE	21.244
s_returns	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
liquidity	67.1949	31.55691	2.13	0.041	2.991839	131.398
_cons	-39.199	26.07105	-1.50	0.142	-92.2414	13.8425

There were a total of 35 observations used in this analysis. The R² was 0.1942 indicating that 20% of the variance of share returns of agricultural firms listed at NSE, Kenya is explained by financial liquidity compared to 80% which were explained by other factors outside the current study. The F value for related party transaction was significant (F1, 33) =4.35, p=0.0408<0.05). This implies that there was a significant influence of financial liquidity on share returns of agricultural firms listed at NSE, Kenya. Financial liquidity therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the financial leverage by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 67.1949 multiple units. This implies that financial liquidity was a predictor of share returns of agricultural firms listed at NSE, Kenya. The findings that financial liquidity has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Trade-Off Theory that argues that the value of a firm is determined by its cash flows and

the risk of its assets. The theory suggests that firms facing high liquidity risk may need to maintain higher levels of cash or liquid assets, which could reduce their profitability and therefore decrease their share returns.

Regression Analysis of Financial Leverage and Shares Return

The second study objective was to analyze the effects of leverage on share returns of agricultural firms listed at NSE, Kenya. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Tables 3. The analysis shows that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group.

Hausman Test

In the panel data regression model testing the relationship between related party transaction and probability of distress, fixed effect model and random effect model were fitted and the Hausman test used to determine the appropriate multivariate model to adopt of the two. The

Hausmann specification test results for the multivariate model between financial distresses determinants is shown in Table 3.

The null hypothesis of Hausman Test is that Random Effects model is preferable and since the results in Table 3. indicate P-value = 0.019 which is less than 0.05 confidence level, the null hypothesis

is rejected and hence fixed effects model was employed for the analysis of financial leverage. This implies that the most appropriate model to explain the relationship between financial leverage and share returns of agricultural firms listed at NSE, Kenya was the fixed effects regression model.

Table 3: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fere		Difference	S.E.
RPT	3.290715		1.904384	1.386331

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: difference in coefficients not systematic

Ho: $\chi^2(1) = (b-B)'[(V_b-V_B)^{-1}](b-B)$

6.45

Prob>chi2 = 0.019

Table 4: Regression Analysis of Financial Leverage and Share Returns

Source	SS	df	MS	Number of obs	35
				F(1, 33)	6.19
Model	2674.26107	1	2674.26107	Prob > F	0.018
Residual	14265.3358	33	432.282903	R-squared	0.1579
				Adj R-squared	0.1324
Total	16939.5969	34	498.223438	Root MSE	20.791
s_returns	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
leverage	77.70727	31.24236	2.49	0.018	14.14422 141.2703
_cons	-5.129215	9.113532	-0.56	0.577	-23.67083 13.4124

There were a total of 35 observations used in this analysis. The R² was 0.1579 indicating that 16% of the variance of share returns of agricultural firms listed at NSE, Kenya is explained by financial leverage compared to 84% which were explained by other factors outside the current study. The study established a statistically significant positive relationship between leverage on share returns of agricultural firms listed at NSE, Kenya ($\beta=77.70727$, $p=.018<0.05$) as per Table 4. This finding is also consistent with the real world, where the increase in financial leverage makes listed firms generate more profit leading to increased share returns.

The F value for related party transaction was significant (F1, 33) =6.19, $p=0.018<0.05$). This implies that there is a significant influence of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Financial leverage therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the financial leverage by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 77.70727 multiple units. This implies that financial leverage was a predictor of share returns of agricultural firms listed at NSE, Kenya.

Regression Analysis of Profitability and Shares Return

The third study objective was to analyze the effects of profitability on share returns of agricultural firms listed at NSE, Kenya. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Tables 5. The analysis shows that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group.

Hausman Test

In the panel data regression model testing the relationship between related party transaction and probability of distress, fixed effect model and random effect model were fitted and the Hausman test used to determine the appropriate multivariate model to adopt of the two. The Hausmann specification test results for the multivariate model between financial distresses determinants is shown in Table 5.

Table 5: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
RPT	4.0978	1.6782	1.1876	.
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg				
Test:	difference in coefficients not systematic			
Ho:	chi2(1) = (b-B)'[(V_b-V_B)^(-1)](b-B)			
	9.62			
	Prob>chi2 = 0.048			

The null hypothesis of Hausman Test is that Random Effects model is preferable and since the results in Table 5. indicate P-value = 0.048 which is less than 0.05 confidence level, the null hypothesis is rejected and hence fixed effects model was employed for the analysis of financial leverage as

per Table 5. This implies that the most appropriate model to explain the relationship between profitability and share returns of agricultural firms listed at NSE, Kenya was the fixed effects regression model.

Table 6: Regression Analysis of Financial Liquidity and Share Returns

Source	SS	df	MS	Number of obs	35
				F(1, 33)	5.59
Model	2453.74	1	2453.74444	Prob > F	0.0241
Residual	14485.9	33	438.965225	R-squared	0.1449
				Adj R-squared	0.1189
Total	16939.6	34	498.223438	Root MSE	20.951
55					
s_returns	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
profit	24.849	10.50998	-2.36	0.024	-46.23129 -3.4659
_cons	28.7883	6.541392	4.40	0	15.4797 42.0968

There were a total of 35 observations used in this analysis. The R² was 0.1449 indicating that 14% of the variance of share returns of agricultural firms

listed at NSE, Kenya is explained by profitability compared to 86% which were explained by other factors outside the current study. The study

established a statistically significant positive relationship between profitability on share returns of agricultural firms listed at NSE, Kenya ($\beta=24.849$, $p=.0241<0.05$) as per Table 6. This finding is also consistent with the real world, where the increase in profitability makes listed firms generate more profit leading to increased share returns.

The F value for related party transaction was significant ($F(1, 33) = 5.59$, $p=0.0241<0.05$). This implies that there is a significant influence of profitability on share returns of agricultural firms listed at NSE, Kenya. Profitability therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the profitability by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 24.849 multiple units. This implies that profitability was a predictor of share returns of agricultural firms listed at NSE, Kenya. This indicates that the proportion of current assets in Nairobi Securities Exchange firms in the agricultural sector did not limit their operational capacity. Furthermore, the firms' profitability increasing shareholder wealth. The findings that profitability has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the

Agency Theory that suggests that managers have more information than shareholders and may act in their own interest rather than in the best interest of shareholders. The theory suggests that explains how the management team of agricultural firms can influence the profitability of the firm.

Regression Analysis of Firm Size and Shares Return

The fourth study objective was to analyze the effects of firm size on share returns of agricultural firms listed at NSE, Kenya. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Tables 7. The analysis shows that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group.

Hausman Test

In the panel data regression model testing the relationship between related party transaction and probability of distress, fixed effect model and random effect model were fitted and the Hausman test used to determine the appropriate multivariate model to adopt of the two. The Hausmann specification test results for the multivariate model between financial distresses determinants is shown in Table 7.

Table 7: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
RPT	2.8734	1.48763	1.1473	.
B =	b = consistent under Ho and Ha; obtained from xtreg			
Test:	inconsistent under Ha, efficient under Ho; obtained from xtreg			
Ho:	difference in coefficients not systematic			
	chi2(1) = (b-B)'[(V_b-V_B)^(-1)](b-B)			
	6.72			
	Prob>chi2 =			

The null hypothesis of Hausman Test is that Random Effects model is preferable and since the results in Table 7. indicate P-value = 0.048 which is less than 0.05 confidence level, the null hypothesis is rejected and hence fixed effects model was

employed for the analysis of financial leverage as per Table 7. This implied that the most appropriate model to explain the relationship between firm size and share returns of agricultural firms listed at NSE, Kenya was the fixed effects regression model.

Table 8: Regression Analysis of Firm Size and Share Returns

Source	SS	df	MS		Number of obs	35
Model	2513.73	1	2513.72884		F(1, 33)	5.75
Residual	14425.9	33	437.147516		Prob > F	0.0223
Total	16939.6	34	498.223438		R-squared	0.1484
					Adj R-squared	0.1226
					Root MSE	20.908
s_returns	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
firm_size	12.014	5.009877	-2.40	0.022	-22.20625	-1.8209
_cons	132.635	48.85663	2.71	0.01	33.23579	232.035

There were a total of 35 observations used in this analysis. The R^2 was 0.1449 indicating that 15% of the variance of share returns of agricultural firms listed at NSE, Kenya is explained by firm size compared to 85% which were explained by other factors outside the current study. The study established a statistically significant positive relationship between firm size on share returns of agricultural firms listed at NSE, Kenya ($\beta=12.014$, $p=.022<0.05$) as per Table 8. This finding is also consistent with the real world, where the increase in firm size makes listed firms generate more profit leading to increased share returns.

The F value for related party transaction was significant ($F(1, 33) = 5.75$, $p=0.0241<0.05$). This implies that there is a significant influence of firm size on share returns of agricultural firms listed at NSE, Kenya. Firm size therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the firm size by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 12.014 multiple units. This implies that firm size was a predictor of share returns of agricultural firms listed at NSE, Kenya. This indicates that the proportion of current assets in Nairobi Securities Exchange firms in the agricultural sector did not limit their operational capacity. Furthermore, the firms' firm size increasing shareholder wealth. The findings that firm size has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Resource Based Theory that explains how a firm's unique resources and capabilities can lead to sustained competitive advantage and

superior financial performance. The theory suggests that larger firms may have more resources to invest in research and development, marketing, and distribution, thus leading to greater efficiency and effectiveness in operations.

Hypothesis Testing

The final multivariate generalized least squares (GLS) fitted model was deemed superior to the Ordinary Least Square (OLS) model, which violated the assumptions. The GLS model that handled the violations was deemed more robust and was used to test the study's hypotheses. As a result, this section presents the test of the study's set hypothesis.

Effect of Liquidity on Share Returns

The study used liquidity as its first variable whose objective was to effects of liquidity on share returns of agricultural firms listed at NSE, Kenya. Debt to equity ratio was used to measure the firms' liquidity. The study predicted an insignificant effect of liquidity on share returns of agricultural firms listed at NSE, Kenya. Fixed effects regression model was used to assess if the relationship was statistically significant and as a result the following null hypothesis was tested: H_{01} : Liquidity has no significant effect on share returns of agricultural firms listed at NSE, Kenya. In light of the positive and significant effect of liquidity on share returns finding, the null hypothesis H_{01} : Liquidity has no significant effect on share returns of agricultural firms listed at NSE, Kenya was rejected at 0.05 level of significance and a conclusion drawn that liquidity had significant effect on share returns of agricultural firms listed at NSE, Kenya. This finding is supported by many scholars; Koech (2012) who

established a weak non-linear relationship between liquidity and stock returns at the NSE. Bekaert, Harvey and Lundblad (2007) results reveal that liquidity important and positively associated with stock returns. This however is various in developing countries, depending heavily on political and economic integration factors. Liquidity effect is thus a consensus motivator with disparate extent because of local (in-country) contextual factors.

Effect of Financial Leverage on Share Returns

The study used financial leverage as its first variable whose objective was to effects of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Current Asset to Current Liability ratio was used to measure the firms' financial leverage. The study predicted an insignificant effect of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Fixed effects regression model was used to assess if the relationship was statistically significant and as a result the following null hypothesis was tested: H_{01} : Leverage has no significant effect on share returns of agricultural firms listed at NSE, Kenya. In light of the positive and significant effect of leverage on share returns finding, the null hypothesis H_{01} : Leverage has no significant effect on share returns of agricultural firms listed at NSE, Kenya was rejected at 0.05 level of significance and a conclusion drawn that financial leverage had significant effect on share returns of agricultural firms listed at NSE, Kenya.

This finding is supported by many scholars; Hung, Nhut, Quan and Nguyen (2022) whose results affirm that leverage initiators commove more (less) with leveraged (zero-leveraged) stocks; Shifts in return co-movement are greater for larger absolute leverage changes. In Iran, Karimi (2020) results revealed that financial leverage capital had significant effect on the trend of stock price volatility. Hung, Zhicun and Naiwei (2020) results revealed that accuracy of the volatility models with leverage in option pricing when leverage is high, with amplified effect on the price volatility of in-the-money options.

Effect of Profitability on Share Returns

The study used profitability as its first variable whose objective was to effects of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Returns on equity ratio was used to measure the firms' profitability. The study predicted an insignificant effect of profitability on share returns of agricultural firms listed at NSE, Kenya. Fixed effects regression model was used to assess if the relationship was statistically significant and as a result the following null hypothesis was tested: H_{01} : Profitability has no significant effect on share returns of agricultural firms listed at NSE, Kenya. In light of the positive and significant effect of profitability on share returns finding, the null hypothesis H_{01} : Profitability has no significant effect on share returns of agricultural firms listed at NSE, Kenya was rejected at 0.05 level of significance and a conclusion drawn that profitability had significant effect on share returns of agricultural firms listed at NSE, Kenya. This finding is supported by many scholars; Putri, Dewi and Deni (2021) established that profitability directly affects stock return. Dewi, Dewa, Anak and Gede (2021) who established that both ROA and NPM had significant positive effects on stock returns while ROE had no effect. Ravi (2018) found out that the company's profitability had a significant positive effect on its share price. Achmad, Evelyne, Suharti, Irman (2019) pointed to indefinite relationship between profitability, the exogenous variables and company stock returns.

Effect of Firm Size on Share Returns

The study used firm size as its first variable whose objective was to effects of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Market capitalization ratio was used to measure the firms' firm size. The study predicted an insignificant effect of firm size on share returns of agricultural firms listed at NSE, Kenya. Fixed effects regression model was used to assess if the relationship was statistically significant and as a result the following null hypothesis was tested: H_{01} : Firm size has no significant effect on share

returns of agricultural firms listed at NSE, Kenya. In light of the positive and significant effect of firm size on share returns finding, the null hypothesis H_{01} : Firm size has no significant effect on share returns of agricultural firms listed at NSE, Kenya was rejected at 0.05 level of significance and a conclusion drawn that firm size had significant effect on share returns of agricultural firms listed at NSE, Kenya.

This finding is supported by many scholars; Anton, Thomas and Jiri in 2018) found that size premium decreased over the years and so the evidence was straddled. Maina (2017) found that small-firm effect was evident, but large firm effect indeterminate. The findings support investment in the small firm cluster of the market, while for the big firms, reaping from size-based share returns was impractical. Syed, Summair and Muhammad (2015) found that positive effects of all the indicators with firm size and Book-to-market value leading, with the former having the greatest explanatory power.

Tax as a Moderating Factor on Probability of the Firm Financial Indicators and Share Returns

The study used tax as a moderating factor on probability of the firm financial indicators and share returns whose objective was to assess the moderating effect of tax on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya. Fixed effects regression model was used to assess if the relationship was statistically significant and as a result the following null hypothesis was tested: H_{05} : Tax does not have significant moderating effect on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya. The study established that tax had statistically significant relationship with the firm financial indicators and share returns as a moderating factor. Further, the introduction of tax changed the relationship between the firm financial indicators and share returns.

This finding therefore, made the researcher to conclude that tax had moderating effect on the

relationship between firm financial indicators and share returns since the R^2 changed by 14% after the introduction of tax in the regression. The hypothesis H_{05} : Tax does not have significant moderating effect on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya was rejected. This finding is supported by Erin and Kewei (2017) found that aggregate tax expense, aggregate earnings management aggregate tax avoidance, and future aggregate performance all have explanatory power on stock returns.

CONCLUSIONS AND RECOMMENDATIONS

First, the study established that there was a significant influence of financial liquidity on share returns of agricultural firms listed at NSE, Kenya. Financial liquidity therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the financial leverage by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 67.1949 multiple units. This implies that financial liquidity was a predictor of share returns of agricultural firms listed at NSE, Kenya. This indicates that the proportion of current assets in Nairobi Securities Exchange firms in the agricultural sector did not limit their operational capacity. Furthermore, the firms' working capital strategies improved their operational capacity while increasing shareholder wealth.

Second, the study established there is a significant influence of financial leverage on share returns of agricultural firms listed at NSE, Kenya. Financial leverage therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the financial leverage by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 77.70727 multiple units. This implies that financial leverage was a predictor of share returns of agricultural firms listed at NSE, Kenya.

Third, the study established that there is a

significant influence of profitability on share returns of agricultural firms listed at NSE, Kenya. Profitability therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the profitability by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 24.849 multiple units. This implies that profitability was a predictor of share returns of agricultural firms listed at NSE, Kenya. This indicates that the proportion of current assets in Nairobi Securities Exchange firms in the agricultural sector did not limit their operational capacity. Furthermore, the firms' profitability increasing shareholder wealth.

Four, the study established that there is a significant influence of firm size on share returns of agricultural firms listed at NSE, Kenya. Firm size therefore could be used to predict share returns of agricultural firms listed at NSE, Kenya. This finding indicated that an increase in the firm size by 1 unit will lead to increase in share returns of agricultural firms listed at NSE, Kenya by 12.014 multiple units. This implies that firm size was a predictor of share returns of agricultural firms listed at NSE, Kenya. This indicates that the proportion of current assets in Nairobi Securities Exchange firms in the agricultural sector did not limit their operational capacity. Furthermore, the firms' firm size increasing shareholder wealth.

The study established a slight change in the R square of 0.5402 and F statistics of 6.82 after the introduction of tax as a moderating factor in the regression compared to R^2 of 0.4048 and F Statistics of 5.1 before the introduction of tax as a moderator. The finding indicated the increase in R^2 by about 14% indicating that the tax made the Firm Financial Indicators increase share returns of agricultural firms listed at NSE, Kenya by 14% more after the introduction of tax as a moderator variable. This is an indication that tax had a significant moderating effect in the relationship of the Firm Financial Indicators (liquidity, leverage, profitability and firm size) and share returns of

agricultural firms listed at NSE, Kenya.

The aim of this study was to bring to the fore the assess the Firm Financial Indicators and Share Returns on Agricultural Firms Listed at NSE, Kenya. The predictors were; liquidity, leverage, profitability firm size and taxes whereas the outcome variable was shares returns.

The first objective of the study was to analyze the effects of liquidity on share returns of agricultural firms listed at NSE, Kenya. The study found a significant relationship liquidity and share returns of agricultural firms listed at NSE, Kenya. This was contrary to the hypothesized relations of insignificant relationship between liquidity and share returns of agricultural firms listed at NSE, Kenya. and therefore, the researcher rejected the null hypothesis H_{01} : Liquidity has no significant effect on share returns of agricultural firms listed at NSE, Kenya. The findings that financial liquidity has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Trade-Off Theory that argues that the value of a firm is determined by its cash flows and the risk of its assets. The theory suggests that firms facing high liquidity risk may need to maintain higher levels of cash or liquid assets, which could reduce their profitability and therefore decrease their share returns.

The second objective of the study was to analyze the effects of leverage on share returns of agricultural firms listed at NSE, Kenya. The study found a significant relationship leverage and share returns of agricultural firms listed at NSE, Kenya. This was contrary to the hypothesized relations of insignificant relationship between leverage and share returns of agricultural firms listed at NSE, Kenya. and therefore, the researcher rejected the null hypothesis H_{02} : Leverage has no significant effect on share returns of agricultural firms listed at NSE, Kenya. The findings that financial leverage has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Capital Structure Theory that argues that the value of a firm is determined by its

cash flows and the risk of its assets. The theory affirms that a firm's optimal capital structure is achieved when the cost of debt equals the cost of equity, which occurs at the point where the firm's weighted average cost of capital is minimized.

The third objective of the study was to analyze the effects of profitability on share returns of agricultural firms listed at NSE, Kenya. The study found a significant relationship profitability and share returns of agricultural firms listed at NSE, Kenya. This was contrary to the hypothesized relations of insignificant relationship between profitability and share returns of agricultural firms listed at NSE, Kenya. and therefore, the researcher rejected the null hypothesis H_{03} : Profitability has no significant effect on share returns of agricultural firms listed at NSE, Kenya. The findings that profitability has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Agency Theory that suggests that managers have more information than shareholders and may act in their own interest rather than in the best interest of shareholders. The theory suggests that explains how the management team of agricultural firms can influence the profitability of the firm.

The fourth objective of the study was to analyze the effects of firm size on share returns of agricultural firms listed at NSE, Kenya. The study found a significant relationship firm size and share returns of agricultural firms listed at NSE, Kenya. This was contrary to the hypothesized relations of insignificant relationship between firm size and share returns of agricultural firms listed at NSE, Kenya. and therefore, the researcher rejected the null hypothesis H_{04} : Firm Size has no significant effect on share returns of agricultural firms listed at NSE, Kenya. The findings that firm size has a significant and positive relationship with share returns of agricultural firms listed at NSE, Kenya supports the Resource Based Theory that explains how a firm's unique resources and capabilities can lead to sustained competitive advantage and superior financial performance. The theory

suggests that larger firms may have more resources to invest in research and development, marketing, and distribution, thus leading to greater efficiency and effectiveness in operations.

The fifth objective of the study was to analyze the moderating effect of tax on the relationship between firm financial indicators and share returns of agricultural firms listed at NSE, Kenya. The study established that the introduction of tax changed the relationship between Tax on Firm Financial Indicators and Share Returns. This finding therefore, made the researcher to conclude that tax had moderating effect tax on firm financial indicators and share returns of agricultural firms listed at NSE, Kenya. The null hypothesis H_{05} : Tax does not have significant moderating effect on the relationship between firm financial indicators and share returns on agricultural firms listed at NSE, Kenya was rejected. This is an indication that tax had a significant moderating effect in the relationship of the Firm Financial Indicators (liquidity, leverage, profitability and firm size) and share returns of agricultural firms listed at NSE, Kenya.

The study recommended that;

First, from the current evidence indicating the important liquidity on shares returns of the firms. While the Capital Market Act CAP 485A promotes of investors investing in the stock market. There is a need to evaluate the Act in the light of analyzing the liquidity trends of the firms listed in the Agricultural Sector at NSE so as to inform amendments that can encourage possibility of liquidity of these firms. Prudence in dealing with debts should also be re- evaluated to make sure that these firms are financially stable to meet their obligations.

According to the study, the management of non-financial firms listed on the NSE should encourage their shareholders to reinvest their earnings rather than consume them as dividends. It was discovered that retained earnings have a significant impact on financial growth as measured by earnings per

share growth. Notably, retained earnings are a cost borne by equity holders. Retained earnings are a readily available internal source. Furthermore, retentions are less expensive than external equity, do not result in ownership dilution, and have a positive connotation because stakeholders perceive the firm as having potential investment opportunities. Because there are few firm financing options available, firms prefer to retain more earnings and reinvest them in operations, especially when there are viable investment

opportunities.

Recommendation for Further Studies

The current study was done in Agriculture sector which is small proportionate to all the sectors in NSE. Further cross-sectional study should have conducted on the Firm Financial Indicators and Share Returns in all the sectors in NSE. The findings from the study will shade more light on how the Firm Financial Indicators; liquidity, leverage, profitability and firm size affect Share Returns across all segments.

REFERENCES

- AlAli, M. S. (2020). Risk velocity and financial markets performance: Measuring the early effect of covid-19 pandemic on major stock markets performance. *International Journal of Economics and Financial Research*, 10.
- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*.
- Anton A., Tomas H. and Jiri N. (2018). *Firm Size and Stock Returns: A Quantitative Survey*. Found at <http://metaanalysis.cz/size>. accessed on 20/4/2023, 16h 40'.
- Authority, C. M. (2020). About Capital Market Authority. *Riyadh: Capital Market Authority*.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Bassey. F.A, Tobi. E. G, Bassey I.F & Ekwere. R. E. (2016). Liquidity Management and the Performance of Banks in Nigeria (2000-2010): Human Resource Management Academic Research Society. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(1), pages 41-48.
- Bekaert, G., Harvey, R. C. and Lundblad, C. (2007). Liquidity and Expected Returns: Lessons from Emerging Markets. *The Review of Financial Studies*, 20 (5).
- Cerkovskis, E., Gajdosikova, D., & Ciurlau, C. F. (2022). Capital structure theories: Review of literature. *Ekonomicko-Manazerske Spektrum*, 16(1), 12-24.
- DeAngelo, H., & Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics*, 8(1), 3-29.
- Dewa, A., Dewi, N., Anak, A., Gede, S. (2021). The Effect of Profitability on Stock Return. *American Journal of Humanities and Social Sciences Research*, 5(1), 695-703.
- Ehiedu, V. C., & Priscilla, I. C. (2022). Firm specific determinants and its implication on listed oil and gas firms profitability in Nigeria. *International Journal of Advanced Economics*, 4(7), 142-158.
- Elert, N., Henrekson, M., Sanders, M., Elert, N., Henrekson, M., & Sanders, M. (2019). Taxation and Entrepreneurship. *The Entrepreneurial Society: A Reform Strategy for the European Union*, 35-51.
- Elmghaamez, I. K., & Olarewaju, J. I. (2022). Corporate social responsibility and financial performance of

product and service-based firms listed on London Stock Exchange. *Corporate Social Responsibility and Environmental Management*, 29(5), 1370-1383.

- Erin, H. and Kewei, H. (2017). *Tax Expense and Aggregate Stock Returns*. National Tax Association Proceedings
- Eysimkele, A. R., & Koori, J. M. (2019). Financial Leverage and Performance of the Agricultural Companies Listed at Nairobi Securities Exchange, Kenya. *Journal of Finance and Accounting*, 3(5).
- Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. *Journal of Financial Economics*, 15(1), 1-22, <https://doi.org/10.1016/j.jfineco.2014.10.010>.
- Gerio, P. J., Egessa, R., & Alala, O. B. (2021). *Influence of Earnings Management On Financial Performance Of Agricultural Firms Listed In Nairobi Securities Exchange* (Masters Dissertation, University of Nairobi).
- Githira, C., Muturi, W., & Nasieku, T. (2019). Influence of firm financial characteristics on stock return of firms listed in Nairobi securities. *American Based Research Journal*, 8(03).
- Gormsen, N. J., & Kojien, R. S. (2020). Coronavirus: Impact on stock prices and growth expectations. *The Review of Asset Pricing Studies*, 10(4), 574-597.
- Hui Hong a, ZhicunBian b, Naiwei Chen c (2020). Leverage effect on stochastic volatility for option pricing in Hong Kong: A simulation and empirical study. *The North American Journal of Economics and Finance*, 54.
- Hung X. Do a b, Nhut H. Nguyen c, Quan M.P. Nguyen a(2022), Financial leverage and stock return comovement. *Journal of Financial Markets*, 60.
- Ibe, S. O. 2013. The Impact of Liquidity Management on the Profitability of Banks in Nigeria. *Journal of Finance and Bank Management*, 1 (1):37-48.
- Isaac, R. M. (2022). Contribution of Corporate Governance on Performance of Listed Companies in Kenya. *European Journal of Business and Management Research*, 7(1), 104-112.
- Jonathan, A. A. and Xuan, V. V. (2015). Liquidity and Return Relationships in an Emerging Market. *Emerging Markets Finance and Trade*, 50 (1), 5-21.
- Karimi, G. (2020). *Effect of Financial Leverage on the Trend of Stock Pricing Fluctuations in Companies Listed in Tehran Stock Exchange* (Masters Dissertation, Iran University). <https://doi.org/10.20511/pyr2020.v8nSPE2.654>
- Kartikasari, D., & Merianti, M. (2016). The effect of leverage and firm size to profitability of public manufacturing companies in Indonesia. *International Journal of Economics and Financial Issues*, 6(2), 409-413.
- Kinyua, J. B. (2016). *Determinants of capital structure of agricultural firms in Kenya* (Doctoral dissertation, University Of Nairobi).
- Knivsflå, K. H. (2023). Capital Structure, Cost of Capital, and Proxy Risk Factors. *Cost of Capital, and Proxy Risk Factors* (February 7, 2023).
- Koech, P. (2012). *Relationship between liquidity and return of stock at The Nairobi Securities Exchange* (Masters Dissertation, University of Nairobi).
- Kubick, T. R., Lynch, D. P., Mayberry, M. A., & Omer, T. C. (2015). Product market power and tax avoidance:

- Market leaders, mimicking strategies, and stock returns. *The Accounting Review*, 90(2), 675-702.
- Kumala, R., & Siregar, S. V. (2021). Corporate social responsibility, family ownership and earnings management: the case of Indonesia. *Social Responsibility Journal*, 17(1), 6
- Kusuma, M. C., & Kitri, M. L. (2022). The Effect of Capital Structure Management on Firm's Value: The Case of Final Tax Regulation on Indonesian Construction Firm. *Asian Journal of Accounting and Finance*, 4(3), 15-29.
- Lekaram, V. (2014). The relationship of corporate governance and financial performance of manufacturing firms listed in the Nairobi securities exchange. *International Journal of Business and Commerce*, 3(12), 30-57.
- Lintner, J. (1965). The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. *Review of Economics & Statistics*, 17, 13-37.
- Maina, B., W. (2016). *Testing the Firm Size Effect On Stock Market Returns At The Nairobi Securities Exchange*. University of Nairobi: Published Master's degree thesis.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*, 48(3), 261-297. Frank, M. Z., & Goyal,
- Muraya, B. W. (2017). *Determinants of agricultural productivity in Kenya* (Doctoral dissertation).
- Ngunjiri, N. (2016). *Relationship between firms' financial performance and stock return for firms listed at Nairobi securities exchange* (Doctoral dissertation, University of Nairobi).
- Njiru, M. A. (2019). *Effect of Firm Specific Factors on Stock Returns of Insurance Firms Listed at The Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).
- Nyang'oro, O. (2016). *Determinants of Capital Structure of Listed Firms in Kenya and the Impact of Corporate Tax*.
- Outa, E. R., & Waweru, N. M. (2016). Corporate governance guidelines compliance and firm financial performance: Kenya listed companies. *Managerial Auditing Journal*.
- Ravi, K. B. (2018). Impact of Profitability on Share Prices. *International Journal of Research and Analytical Reviews*, 5 (4).
- Rünger, S. (2021). Personal taxation and individual stock ownership. *The European Journal of Finance*, 27(6), 596-611.
- Shleifer, A., & Vishny, R.W. (1997). Contrarian investment, extrapolation, and risk. *Journal of Finance*, 49(12), 1541-1578.
- Spreen, T. L., & Gerrish, E. (2022). Taxes and tax-exempt bonds: A literature review. *Journal of Economic Surveys*, 36(4), 767-808.
- Steiber, A., & Alänge, S. (2021). Corporate-startup collaboration: effects on large firms' business transformation. *European Journal of Innovation Management*, 24(2), 235- 257.
- Uzair, B., & Hanif, M. (2010). Validity of capital asset pricing model: Evidence from Karachi Stock Exchange in Pakistan. *European Journal of Financial Economics*, 20, 6-7.

Vitolla, F., Raimo, N., &Rubino, M. (2020). Board characteristics and integrated reporting quality: An agency theory perspective. *Corporate Social Responsibility and Environmental Management*, 27(2), 1152-1163.

Zerbo, A., & Hien, L. (2020). *General Theory of the Firm: Business Investment Decision*.