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Dr. Samuel Kanga Odalo, Dr. George Achoki and Dr. Amos Niuguna

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INFLUENCE OF INTEREST RATE ON THE FINANCIAL PERFORMANCE OF AGRICULTURAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

[1*]Dr. Samuel Kanga Odalo
1Post graduate student, United States International University- Africa
*Corresponding Author's Email: *samuelodalo@gmail.com*

[2] Dr. George Achoki
Lecturer, United States International University- Africa

[3] Dr. Amos Njuguna
Lecturer, United States International University- Africa

Abstract

Purpose: The purpose of this study was to establish to establish the influence of interest rate on the financial performance of agricultural firms listed at the Nairobi Securities Exchange.

Methodology: The research design adopted was descriptive and causal (explanatory). A census approach was adopted and all the seven listed agricultural companies were taken as the population. The respondents' sample was from finance departments at all levels and 220 questionnaires were administered. Primary data was collected using questionnaires while the secondary data was collected using data collection sheets from the firms as well as from the Nairobi Securities Exchange and CMA records. The particular inferential statistic was regression and correlation analysis. Panel data methodology was employed using a multivariate regression model to test the hypotheses and link the variables.

Results: The findings revealed that interest rate has a positive and significant relationship with ROA, ROE and EPS. In addition, the findings from the interaction of the independent variables and the interest rate revealed that interest rate moderate the effect of financial performance of agricultural firms listed at the Nairobi Securities Exchange.

Unique contribution to theory, practice and policy: The study recommends that financial institutions and banks in Kenya should assess their clients which include agricultural firms listed in NSE while setting up interest rates policies, as ineffective interest rate policies can increase the level of interest rates and consequently cost of borrowing and negate financial performance of the borrowing firms. The study also recommends that the Central Bank should apply stringent regulations on interest rates charged by financial institutions so as to regulate their interest rate spread.

Keywords: *Interest rate, financial performance, financial performance analysis, listed Companies.*

1.0 INTRODUCTION

1.1 Background of the Study

Agriculture development is the most critical sector for most Sub-Sahara African countries owing to its significance in food security and employment creation. Agricultural performance however has since the 1990s erratically fluctuated widely, culminating in a declining trend over the period. The close relationship between the performance of agriculture and that of the economy obviously implies that agriculture must grow at a high rate for it to spur economic growth (Nyoro, Wanjala & Awour, 2012). However, for agriculture to grow at the expected rate, quality investments need to be put in place in key areas that have potential for growth. Agricultural companies thus have the potential of enhancing economic growth by providing raw materials and market for good quality produce in large quantities and being catalysts for increased production of farm produce. Financial performance of listed agricultural firms has become an issue of common concern of the stakeholders including the shareholder, the creditor, the company staffs and the government administration. At present, as the capital market expands a great number of firms crowd into it. Although most listed firms are excellent representatives of their businesses, the working rule of the market economy, which is the competition mechanism of the superior winning and the inferior washing, leads to the different financial performances. Therefore, the financial performance of a firm usually reflects its development condition (Wang 2008).

The Nairobi Securities Exchange, formerly called Nairobi Stock Exchange, was established in 1954. The establishment of the NSE was mainly geared towards the sale of shares of public companies that are listed on the NSE and other private companies that intend to go public. Since the establishment of the NSE, it has become the major securities exchange market in East Africa with about sixty (60) companies listed, grouped into eleven (11) industries. Inclusive of the industries is the agricultural sector, which is currently comprised of seven (7) agricultural companies (NSE, 2014).

Firms are mostly concerned with their profitability, as profitability serves as the primary goal of all business ventures. Without profitability, the business will not survive in the long run. The notable measures of financial performance in companies include return on assets (ROA), return on equity (ROE) and net margin on sales. Financial performance measures serve as a basis for evaluating the performance of a corporate entity. The use of equity and debt impact the common performance measures in different ways. A given firm with relatively high use of debt will have higher interest expense and therefore lower net margin. On the other hand, a relatively lower use of equity would result in a proportionately higher return on equity. Therefore, if a corporate entity were to use relatively less debt and more equity, the opposite would be true (Liebrand, 2007).

1.2 Problem Statement

Agriculture remains critical to Kenya's economic growth and development. This sector continues to remain the largest platform upon which economic growth is based, which makes the economy largely agro-based. Therefore agriculture must grow at a high rate in order to maintain sustainable economic growth. The sector which is the mainstay of Kenya's economy, contributed 26 percent of gross domestic product (GDP), and another 25 percent indirectly. This sector contributes 65 percent of Kenya's total export and employs over 40 over percent of the total

population (Government of Kenya, 2011). Despite the support from the government, Kenya has continued facing enormous challenges in the agriculture sector with many companies in the agriculture sector closing down (PDA 2010). The government has however continued supporting the agricultural organizations with efforts geared towards establishing the factors leading to the poor financial performance and collapse of the companies. KDB (2010) observed that over 50 per cent of dairy companies in the country had closed down in the period between 2003 and the year 2010 while almost all the remaining dairy based companies were operating at below capacity. Similarly, PDA (2010) reported a similar trend with the crop based companies closing down or operating below capacity.

Studies have been conducted both internationally and locally to examine the factors affecting the performance of firms listed in the stock exchange. Wu, Li and Zhu (2010) stated that a good financial performance is the precondition for agricultural listed firms to be sustained and record healthy development. Rising profitability is the driving force of agricultural listed firms to drive agriculture from traditional agriculture to modern agriculture. Therefore, the study on factors affecting financial performance of agricultural listed firms helps firms to improve the financial performance and to maintain sustainable growth. However, Peng (2006) mentioned that a series of problems related to the transitional economic background and historical factors have led to the poorer financial performance, higher risks of the listed agricultural firms, which have consequently affected the competitiveness and sustained development of the firms. The financial performance of the listed agricultural firms can reflect their development. Therefore, the deep analysis of the factors affecting their financial performance in the background of transitional economy in China is theoretically and practically vital for one to understand the development trend of the listed agricultural firms and improving their financial performance.

Hao (2011) stated that China has a large population, but has a relatively small field land. As of 2010, China had field land area only about 300.796 million acres. The per capita field land area is 0.227 acre, which is only 40 per cent of the world average. Thus it can be seen that it is important to improve the productivity of the agricultural sector. The agricultural economy is the foundation of the national economy, and agricultural listed firms are also an important component of China' stock market. Therefore, it's very necessary to study the factors affecting financial performance of agricultural listed firms. Gao (2010) observed that agriculture is the foundation of the national economy. India is a large agricultural country as well as a developing agriculture country. Agricultural listed firms financed from capital market promote agriculture integration operation, which is a trend in the future of agriculture development. However, agricultural listed firms in India have faced a big challenge characterized by worsening financial performance is getting worse and failing diversification operations according to newspapers.

Omboi (2011) observed that the agricultural sector has not performed well over the last decade with its growth declining from a rate of 4.4 per cent in 1966 to 1.5 per cent in 1999 and to an all-time low of negative 2.4 per cent in 2000. Growth in the sector started to pick up in 2002 rising to 1.8 per cent in 2004 and a dramatic 6.7 per cent in 2005. The suboptimal performance could have been caused by many factors including, liquidity, ownership structure, company size, sales growth and operating cost efficiencies. Qin, Fu, Ma, and Li (2011) showed that listed agricultural firms are essential for the sustainable development of agriculture. The small population quantity, slow development, weak growing capacity, relatively poor rationality and unbalanced regional

distribution situation of China's agricultural listed firms have seriously restricted the development of China's agricultural economy.

The highlighted studies above (Omondi & Muturi 2013; Omboi 2011; Mwangi, Makau & Kosimbei, 2014 & Wambua 2013) did not consider a moderating variable. This study used board size and interest rate as moderating variables. Further, all the studies highlighted used simple regression but this study adopted panel data methodology. Omondi and Muturi (2013) which is a closer to this study used data running from the year 2006 to 2012 while the current study used data from the year 2003 to 2013. In addition Omondi and Muturi (2013) used only ROA as a measure of the financial performance where as the current study used ROA, ROE and EPS. This therefore justify why this study is conducted despite the fact that some of the related studies have been done.

While past studies have identified both internal and external factors as key determinants of a firm's performance, few studies have been done with regard to factors influencing the financial performance of agricultural listed companies, especially in developing economies. Such studies have produced mixed results. This study therefore sought to establish the influence of interest rates on performance of agricultural firms listed in the Nairobi Securities Exchange.

1.3 Research Objective

The objective of this study was to establish the influence of interest rates on the financial performance of agricultural firms listed at the Nairobi Securities Exchange.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Theory of firm growth

The theory was propagated by Penrose in 1959. Penrose argued that firms had no determinant long run or optimum size, but only a constraint on current period growth rates (Penrose, 1959).

There are two major categories of 'causes' of growth; those external to the firm and those internal. Penrose suggests that external causes, for example raising capital, demand condition, sales increment etc., and while of interest 'cannot be fully understood without an examination of the nature of the firm itself. The problem as she saw it was 'the internal incentives to and limits on growth - a theory of the growth of the firm that does not relate to fortuitous externals events. This theory is relevant to this study since it explains interest rates.

The currents studies which have used theory of firm growth are; Hermelo, & Vassolo, (2007) who conducted a study on the determinants of firm's growth: an empirical examination and Pervan, Maja, and Višić (2012) who studies on the Influence of firm size on its business success.

2.2 Empirical Review

Njoroge (2013) carried out a study on relationship between interest rates and financial performance of firms listed at the Nairobi Securities Exchange. The main purpose of the study was to assess the nature of the relationship between interest rates and financial performance of firms listed at the Nairobi Securities Exchange. The study covered five years from 2008 to 2012 inclusive and the research was based on secondary data obtained from published financial

statements of the firms and publications by the Central Bank of Kenya. The causal research design was employed to assess the nature of the relationship between interest rates and financial performance of firms listed at the Nairobi Securities Exchange. Regression analysis was used to assess the nature of the relationship. Results obtained from the study indicated a not significant positive relationship between interest rates and financial performance.

Ngumo (2012) conducted a study on the influence of interest rates on the financial performance of firms offering mortgages in Kenya. The study found that Mortgage is a long-term commitment that ties a prospective homeowner down to mortgage repayment for at least 20 years or transfer of a legal or equitable interest in a specific immovable property for the payment of debt. Mortgage loans are secured by real the real property and provide a schedule of payments of interest and repayment of the principal to a bank. Following interest rates liberalization, interest rates have fluctuated to respond to changes in demand and supply of loan able funds in the financial market. However, this could be counter-productive or result in an unsound financial sector, in a country where financial institutions lack experience management. The study adopted a survey research design on a target population of all organizations registered for mortgage lending as of 31st December 2011 which were 33. The study used secondary data sources to collect data from CMA library and Central Bank of Kenya. The data collected were analyzed using multiple linear regression analysis conducted at 95percent confidence level. The study established positive relationships in the five regression analysis between financial performance and the amount of mortgage loans advanced; three positive results were established between interest rates and the former. The study concludes that the amount of mortgage advanced by mortgage firms would lead to a high financial performance (EBIT) as it raises the revenue thereof. On the other hand, interest rate would positively relate with financial performance till it starts discouraging borrowings owing to increase in the cost of mortgage. The study recommended that mortgage firms in Kenya charge interest rates on the mortgage appropriately as ineffective interest rate policy raises the cost of mortgage borrowing, negate its demand thus lowers financial performance.

2.3 Conceptual Framework

Interest rate is a price that relates to present claims on resources relative to failure claims on resources. It is the price a borrower pays in order to be able to consume resources now, (Ngumo, 2012). Correspondingly, it is therefore the price that a lender receives to forget current consumption in order to take advantage of consumption of resources at some point in future. In the real world, price changes are anticipated and this anticipation is part of the process that determines interest rates. There are different types of interest rate. These include TB rates, CBR and Commercial banks lending rates. This study used TB rates as a measure of interest rate. A treasury bil ratel (T-Bill) is a short-term debt obligation backed by the government with a maturity of less than one year. Other studies which used TB rate as a measure of interest rate include; Kyereboah-Coleman, & Agyire-Tettey, (2008), Adjasi, Harvey and Agyapong (2008), Njoroge (2013) and Ngumo (2012)

According to Keynes (1936); Gupta (2011), interest rates represent the cost of borrowing capital for a given period of time. Due to the fact that borrowing is a significant source of finance for many firms, prevailing interest rates are of much concern to many firms because of indexing of interest rates in some borrowing arrangement; interest rates continue to affect a firm for the

whole period that the borrowing arrangement is outstanding (Keynes, 1936; Gupta, 2011). Interest rate is normally determined by the supply and demand, but it is also determined by the monetary policy of a country according to its economic situation. Higher interest rate in saving will be attracted for investors to keep in the bank rather than invest in the risky stock market. Conversely, investors will be involved in the stock market rather than bank account if the risk free return is in downturn.

Kibet *et al.* (2011) assert that the interest rate is one of the important macroeconomic variables, which is directly related to economic growth. Generally, interest rate is considered as the cost of capital means, the price paid for the use of money for a period of time. From the point of view of a borrower, interest rate is the cost of borrowing money (borrowing rate). From a lender's point of view, interest rate is the fee charged for lending money (lending rate). According Kithuria, (2006) an increase in the interest rate raises the cost of funds. This will have an impact on businesses as well as investors. Because it is more attractive to put the money in banks, businesses will slow down the implementation of their business plans and investors will reduce their investments in the financial markets. Lahtinen (2009) adds that the precise impact will depend on, among other factors such as the absolute level of the interest rate – if the interest rate is at a very low level, the impact of an increase in the interest rate is less apparent; and the perception about the interest rate hikes – if the hikes are perceived to be precautionary in nature to avoid inflation in advance, the impact of an increase in the interest rate is less apparent.

Aggarwal (2010) argues that the influences of interest rates on the stock market performance greatly influences the prices of securities which are essentially determined by the net earnings of a corporation, and are hence directly proportional to the performance of the company. A high interest rate environment adversely affects the prices of stocks and the eventual returns. For instance, an increase in interest rates in the economy forces lenders to hike their lending rates in order to compensate for the risk. This eventually, plays a significant role in barricading accessibility to funds for investment purposes eventually negating the prosperity and growth of the stock markets. Lee (2009) argues that the volatility of interest rates may have a diverse influence across the economic spectrum in any country. For instance, interest rates will impact the cost of doing business. The influences of interest rates may ultimately be reflected in the stock prices. On the converse, performance of companies and businesses in Kenya may impact on economic growth. The economic growth may eventually affect levels of interest rates. Policy makers, scholars, economists, business owners, regulators and the general Kenyan public are grappling with figuring out the relationship of stock prices and interest rates.

Roy and Wilfred (2011) argues that the issue of whether stock prices and interest rates are related or not, is an important one especially with increased international trade and the integration of the global financial markets. If stock prices and interest rates are related and the causation runs from interest rates to stock prices then crises in the stock markets can be prevented by controlling the interest rates. Moreover, developing countries can exploit such a link to attract foreign portfolio investment in their own countries. Similarly, if the causation runs from stock prices to interest rates then authorities can focus on domestic economic policies to stabilize the stock market.

Adofu and Audu (2010) used ordinary least square method to ascertain the assessment of the influences of interest rate deregulation in enhancing agricultural productivity in Nigeria. The study found out that interest rate play a significant role in enhancing economic activities and as

such, monetary authorities should ensure appropriate determination of interest rate level that will break the double - edge influence of interest rate on savers and local investors. The study found that the stock market reflects the overall health of the economy. One measure of that health is rising or falling interest rates. The Federal Reserve raises or lowers interest rates to fight inflation or make it easier for companies to borrow money.

3.0 RESEARCH METHODOLOGY

The research design adopted was descriptive and causal (explanatory). A census approach was adopted and all the seven listed agricultural companies were taken as the population. The respondents' sample was from finance departments at all levels and 220 questionnaires were administered. Primary data was collected using questionnaires while the secondary data was collected using data collection sheets from the firms as well as from the Nairobi Securities Exchange and CMA records. The particular inferential statistic was regression and correlation analysis. Panel data methodology was employed using a multivariate regression model to test the hypotheses and link the variables.

4.0 RESULTS AND DISCUSSIONS

4.1General Information

4.1.1 Interest Rates

Figure 1 below shows the Interest Rate trend for the seven companies from the year 2003 to 2013.

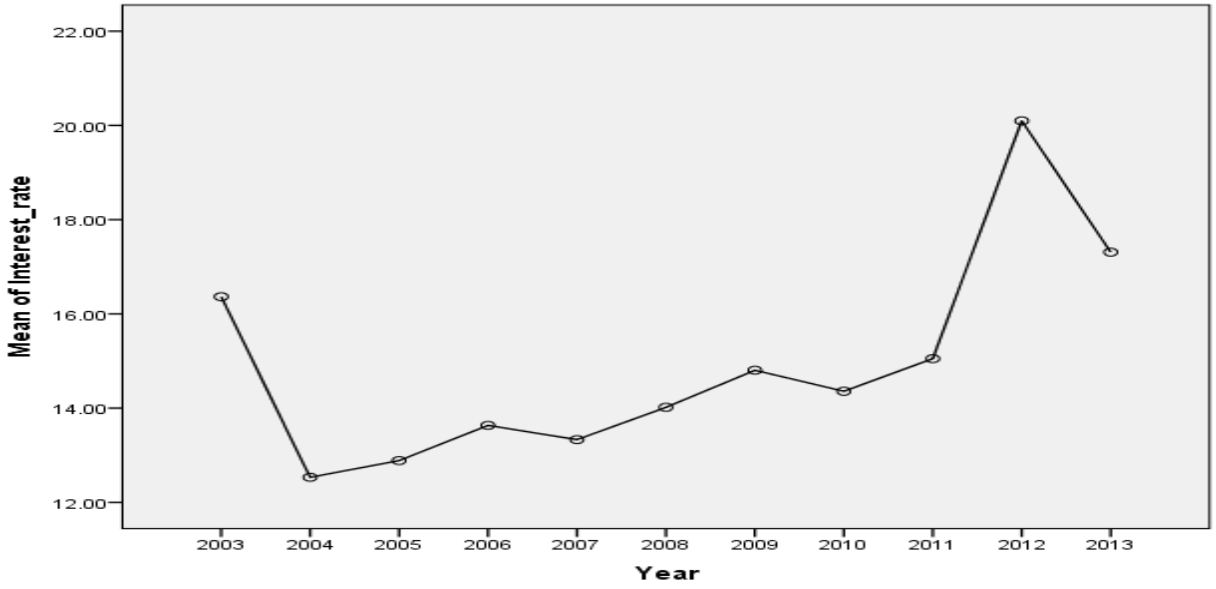

Figure 1: Interest Rate Trend

The trend indicates that Interest Rate has been rising though there was a slight drop in the years 2004 and 2013.

Table 1: Trend Analysis for Interest Rate

	N	Mean	Std. Deviation	Std. Error	95percent Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
2003	7	16.3650	.00000	.00000	16.3650	16.3650	16.36	16.36
2004	7	12.5321	.00000	.00000	12.5321	12.5321	12.53	12.53
2005	7	12.8866	.00000	.00000	12.8866	12.8866	12.89	12.89
2006	7	13.6341	.00000	.00000	13.6341	13.6341	13.63	13.63
2007	7	13.3312	.00000	.00000	13.3312	13.3312	13.33	13.33
2008	7	14.0169	.00000	.00000	14.0169	14.0169	14.02	14.02
2009	7	14.8046	.00000	.00000	14.8046	14.8046	14.80	14.80
2010	7	14.3575	.00000	.00000	14.3575	14.3575	14.36	14.36
2011	7	15.0498	.00000	.00000	15.0498	15.0498	15.05	15.05
2012	7	20.0962	.00000	.00000	20.0962	20.0962	20.10	20.10
2013	6	17.3100	.00000	.00000	17.3100	17.3100	17.31	17.31
Total	76	14.9129	2.13753	.24519	14.4244	15.4013	12.53	20.10

4.2 Influence of Interest Rate on the Financial Performance

The respondents were requested to indicate if interest rate affects the financial performance. This is presented in figure 2.

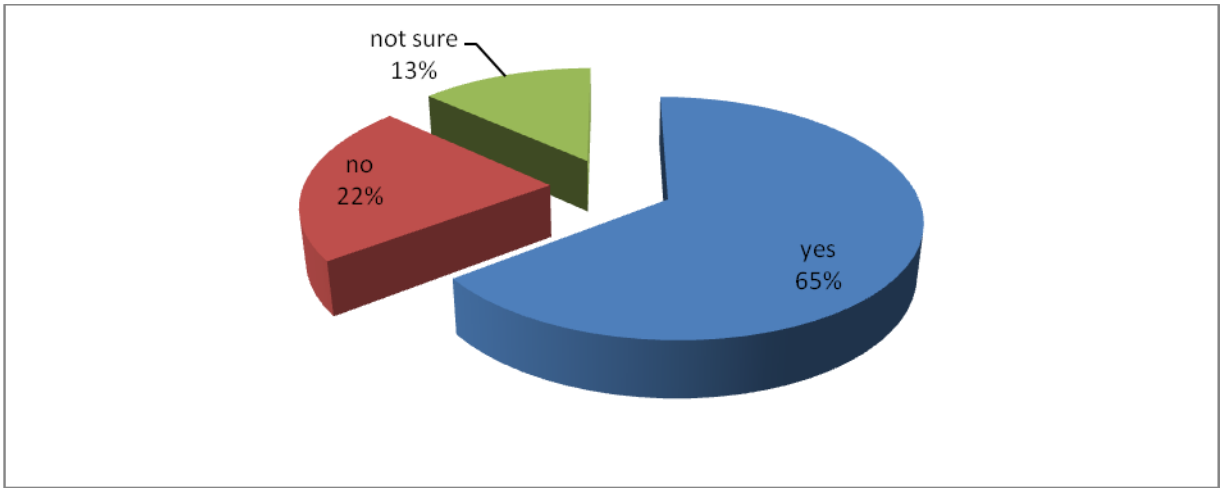

Figure 2: Influence of Interest Rate on Financial Performance (Primary Data)

Results show that 65 percent respondents who were the majority indicated that interest rate affect the financial performance. 13percent of the respondents indicated that they were not sure if interest rate affects financial performance while only 22percent indicated that interest rate does not affect financial performance.

The respondents were requested to rank the impact of interest rate on financial performance indicators (ROA, ROE and EPS).

Table 2: Impact of Interest Rate on Financial Performance Indicators (Primary Data)

Statement	low rank	moderate rank	high rank	Mean	Std. Dev
Interest rate on ROA	10.70percent	36.70percent	52.70percent	2.42	0.678
Interest rate on ROE	12.00percent	58.70percent	29.30percent	2.17	0.621
Interest rate on EPS	33.30percent	26.00percent	40.70percent	2.07	0.86
Average				**2.22**	**0.72**

As indicated on table 2 below, 52.7percent who were the majority indicated that interest rate has a greater impact on ROA, 58.7percent indicated that interest rate has a moderate impact on ROE while 40.7percent responded that interest rate has a greater impact on EPS. The overall mean of the responses was 2.22 which indicated that majority of the respondents agreed that interest rate has a moderate influence on financial performance indicators. Additionally, the standard deviation of 0.72 indicates that the responses were varied.

The study sought to establish the extent of the respondent's agreements or disagreements on influence of interest rate on financial performance. The responses were rated on a likert scale and the results presented in Table 3 below.

Table 3: Influence of Interest Rate on Financial Performance (Primary Data)

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Dev
The interest rate has a positive impact on the profitability of the company	14.70%	15.30%	32.00%	26.00%	12.00%	3.05	1.22
The interest rate has a positive impact on the return on assets(ROA) of the company	6.70%	12.70%	30.70%	34.70%	15.30&	3.39	1.10
The interest rate has a positive impact on the return on equity(ROE) of the company	6.00%	10.00%	29.30%	33.30%	21.30%	3.54	1.12
The interest rate has a positive impact on the earning per share(EPS) of the company	6.70%	6.70%	28.70%	33.30&	24.70%	3.63	1.13
Average						**3.40**	**1.14**

A majority of 38percent of the respondents agreed that the interest rate of the company has a positive impact on the profitability of the company, 50percent agreed that the interest rate has a positive impact on the return on assets (ROA) of the company, 54.6percent of the respondents agreed that the interest rate has a positive impact on the return on equity (ROE) of the company while 58percent agreed that the interest rate has a positive impact on the earning per share (EPS) of the company. On a five point scale, the average mean of the responses was 3.4 which means that majority of the respondents were agreeing to the statements in the questionnaire; however the answers were varied as shown by a standard deviation of 1.14.

4.2.1 Correlation Analysis for Interest Rate and Financial Performance

Table 4 below presents the results of the correlation analysis of interest rate using secondary data.

Table 4: Correlation Analysis Results (Secondary Data)

		ROA	ROE	EPS	Interest rate
ROA	Pearson Correlation	1.000			
	Sig. (2-tailed)				
ROE	Pearson Correlation	.992**	1.000		
	Sig. (2-tailed)	0.000			
EPS	Pearson Correlation	.253*	.263*	1.000	
	Sig. (2-tailed)	0.027	0.022		
Interest rate	Pearson Correlation	**.258***	**.256***	**.239***	1.000
	Sig. (2-tailed)	**0.025**	**0.026**	**0.038**	

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

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

The results indicate that, interest rates is positively and significantly related to ROA (r= 0.258, p= 0.025), positively and significantly related to ROE (r= 0.256 p= 0.026) and positively and significantly related to EPS (r= 0.239, p= 0.038).

Table 5 below presents the correlation analysis of interest rates using primary data.

Table 5: Correlation Analysis Results (Primary Data)

		Interest rate on ROA	Interest rate on ROE	Interest rate on EPS	Mean interest rate
Interest rate on ROA	Pearson Correlation	1.000			
	Sig. (2-tailed)				
Interest rate on ROE	Pearson Correlation	.161*	1.000		
	Sig. (2-tailed)	0.050			
Interest rate on EPS	Pearson Correlation	-0.122	.466**	1.000	
	Sig. (2-tailed)	0.136	0.000		
Mean interest rate	Pearson Correlation	-0.147	-.170*	-0.079	1.000
	Sig. (2-tailed)	0.074	0.038	0.336	

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

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

The results show that, interest rates is negatively and insignificantly related to ROA (r= -0.147, p= 0.074), negatively and significantly related to ROE (r= - 0.170, p= 0.038) and negatively and insignificantly related to EPS (r= -0.079, p= 0.336).

4.2.2 Relationship between Interest Rate and Financial Performance

Regression analysis was conducted to empirically determine whether Interest rate was a significant determinant of performance which is measured in ROA, ROE and EPS. Regression results presented in table 5 indicated the goodness of fit for the regression between interest rate and ROA is 0.066. An R squared of 0.066 indicates that 6.6 percent of the variations in ROA are explained by interest rate. While 6.6 percent of ROE is explained by interest rate and 5.7 percent of EPS is explained by interest rate.

The overall model significance is also presented in table 6.

Table 6: Interest Rate and Financial Performance (Secondary Data)

	ROA	ROE	EPS
Parameter estimate	**Coefficient(P value)**	**Coefficient(P value)**	**Coefficient(P value**
Constant	-0.074(0.352)	-0.090(0.413)	-14.336 (0.219)
Interest rate	0.012 (0.025)	0.017 (0.026)	1.613 (0.038)
R Squared	0.066	0.066	0.057
F statistic (ANOVA)	5.270(0.025)	5.188 (0.026)	4.474(0.038)

The overall model of ROA was significant with F statistic of 5.270. The overall model of ROE was significant with F statistic of 5.188 while for EPS was significant with F statistic of 4.474. The relationship between interest rate and ROA is positive and significant (b_1= 0.012, p value, 0.025). Interest rate and ROE is positive and significant (b_1=0.017, p value, 0.026). Interest rate and EPS is positive and significant (b_1=1.613, p value, 0.038).

The regression equation is as follows;

$$ROA = -0.074 + 0.012 Interest\ rate$$

$$ROE = -0.090 + 0.017 Interest\ rate$$

$$EPS = -14.336 + 1.613 Interest\ rate$$

4.2.3 Hypotheses Testing

The null hypothesis was that interest rates had no significant relationship with financial performance.

The alternative hypothesis was that interest rates had a significant relationship with financial performance.

Since all attributes had a p value of less than 0.05 (ROA had a p value of 0.025, ROE had a p value of 0.026 and EPS had a p value of 0.038), the overall hypothesis was rejected and the alternative hypothesis was adopted. In conclusion, interest rates had a significant and positive relationship with financial performance.

4.2.3 Moderation effect of interest rate

A regression model was run after including the moderating variable (interest rate).The model was therefore of the form:

The model was therefore of the form:

$Y = \beta_0 + \beta_1 X + \beta_2 X_1 + \beta_3 X * X_1 + \mu$

Where,

Y=Financial performance

X=All the independent variables

X_1= Interest rate

X_*X_1=Interaction of all the independent variables and interest rate

Table 7: Moderating effect of Interest rate

Variables	B	Std. Error	t	sig
(Constant)	-0.019	0.068	-0.283	0.778
All the Independent variables	-0.001	0.004	-0.34	0.735
Interest rate	0.005	0.005	1.167	0.247
Interaction of all independent variables with interest rate (moderator)	0.001	0.000	5.02	**0.000**

The interaction between the independent variables and moderating variable (interest rate) is **statistically significant (0.000),** therefore interest rate moderate the effect of financial performance of agricultural firms listed at the Nairobi Securities Exchange. Interest rate is a moderator variable, thus moderation is supported. Since the calculated p value of the interaction is **0.000<0.05**, the null hypothesis is rejected and thus interest rate have a significant moderating effect on the financial performance of agricultural firms listed at the Nairobi Securities Exchange.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1Conclusions

The study concluded that interest rate influence the financial performance positively and significantly. The overall model was statistically significant; therefore interest rate is a good predictor of financial performance. The study also concluded that interest rate supports moderation.

5.2 Recommendations

Since interest rate does influence financial performance, the study recommends that financial institutions and banks in Kenya should assess their clients which include agricultural firms listed in NSE while setting up interest rates policies, as ineffective interest rate policies can increase the level of interest rates and consequently cost of borrowing and negate financial performance of the borrowing firms. The study also recommends that the Central Bank should apply stringent regulations on interest rates charged by financial institutions so as to regulate their interest rate spread.

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