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FIRM CHARACTERISTICS AND QUALITY OF FINANCIAL REPORTING OF AGRICULTURAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA

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Abstract

Statistics show that over 70% of Kenya's population is employed in agricultural sector. It is further revealed that agricultural sector account for about 27% of the nation's GDP. Good financial reporting is critical in ensuring transparency, fostering accountability, and bolstering investor confidence within the sector. Even with the acknowledged importance of financial reporting, gaps still exist in empirical research exploring how firm characteristics influence quality of financial reporting (FRQ) among quoted agricultural companies. This inquiry sought to examine the effect of firm characteristics on FRQ of listed agricultural firms. Specifically, the study was carried out to ascertain the impact of profitability, leverage, growth, and liquidity on FRQ among listed agricultural firms. The data was obtained for the period spanning from 2019 to 2023. The project was hinged on agency theory, positive accounting theory, and signaling theory. The research followed a correlational study design to explore the set objectives. The target population constituted 7 listed agricultural firms. The sample size was obtained through a census of all the listed agricultural firms. The study employed secondary data obtained from company's websites and audited financial statements to achieve the primary goal. The data obtained was analyzed through both inferential statistics such as ANOVA regression and Pearson's Correlation and descriptive statistics. SPSS version 29 was used as the main tool of analysis. The results showed that firm growth, leverage, and profitability had weak negative effect on the FRQ. It was further revealed that liquidity positively and significantly influence FRQ. The study concluded that an increase in profitability, debt financing, and firm growth lowered FRQ while an increase in firm liquidity led to a higher FRQ. The study recommended that firms maintain strong liquidity positions because it is associated with better FRQ. Future research should determine the mediating role of corporate governance mechanisms on the relationship between firm characteristics and FRQ, and include other firms not listed at the NSE like private companies.

Keywords: *Firm Characteristics, Leverage, Liquidity, Growth, Profitability, Financial Reporting*

INTRODUCTION

Studies focusing on firm characteristics and FRQ have had mixed findings. Al Ayub Ahmed (2012) discovered a direct strong link between firm structure (as measured by share dispersion, assets, and leverage) and FRQ of listed manufacturing companies in Bangladesh. Hamidzadeh and Zeinali (2015) investigated how liquidity and asset structure influences FRQ in Tehran Stock Exchange, Iran. The findings revealed that asset structured negatively and significantly affected FRQ while liquidity positively and significantly influenced FRQ. Ishak, Amran, and Abdul Manaf (2018) found that quoted companies at Bursa Malaysia with high leverage and profitability were less likely to manipulate their earnings, a measure of FRQ.

Wesonga, Nyamute, Omoro, and Lishenga (2020) found that liquidity mediated the correlation between independence of audit committee and FRQ of commercial businesses owned by the government. Wasonga (2021) found that firm characteristics (save for liquidity) moderated the link between attributes of audit committee and FRQ. Given the important role played by FRQ in promoting investor confidence and the mixed findings on the link between firm attributes and FRQ, the present inquiry examined the influence of firm growth, liquidity, leverage, and profitability on FRQ of quoted agricultural firms in Kenya.

Over the years, financial reporting has developed as stakeholders demand openness and disclosure of non-monetary information. This has changed how firms deliver their annual reports, which formerly included financial data like dividend yields, revenue, expenditures, and margins. These records, financial statements, firm risk assessments, and CSR disclosures are included in financial reports. Financial reporting is moving toward integrated reporting, which compels corporations to disclose both monetary and non-monetary data (Joshi & Lal Joshi, 2018). This shows potential investors the company's influence. In addition to assets, liabilities, and equity, integrated financial reports assess the company's strategy for new market possibilities and threats. It shows how supply chain disruptions and climate change affect business. Integrated financial reporting also describes future company prospects, governance, performance, and the relationship between financial, natural, and human resources (Joshi & Lal Joshi, 2018). Integrated reporting best practices help companies stand out and provide partners, investors, and customers with complete information.

In addition to integrated financial reporting, CFOs are under pressure to include ESG data in their yearly reports. Investors and consumers use this data to assess corporate governance and understand company activities' environmental and social impacts (Muhindi. & Gitagia, 2023) Government legislation and investor expectations require sustainable business practices, so enterprises should go beyond financial disclosures and include data about their efforts to develop sustainable communities, enhance lives, and protect the environment. More so, sophisticated technical solutions to capture and report financial activities have made real-time financial reporting easier. Artificial intelligence-based accounting and finance software lets finance teams produce and exchange financial reports on-demand and decrease errors (Fisher, 2022). Real-time reporting helps the organization monitor KPIs, audits, and regulatory requirements. Additionally, cross-functional team support is essential for financial reporting risk mitigation. GAAP and IFRS require businesses to provide openness and governance. CFOs use a cross-functional team of HR, accountants, IT, and production managers to monitor and mitigate business-level financial reporting risks (Fisher, 2022). Quality financial reports involve contributions and efforts from different departments. These team activities eliminate report inaccuracies and provide a business overview.

These trends may affect FRQ in numerous ways. Integrated and corporate responsibility reporting may enhance stakeholder information, but data integration and subjectivity should be addressed. If data sources are not integrated correctly, misinterpretations or discrepancies might affect financial reporting (Joshi & Lal Joshi, 2018). The subjectivity of ESG measures and the absence of regulated reporting mechanisms may further undermine dependability and comparability. Interprofessional collaborative teams may also face communication issues and different financial data interpretations that might affect report accuracy and consistency (Fisher, 2022).

Accounting quality is the most popular FRQ metric, but accounting quality is complicated and hard to define. Quality was employed to characterize profits in Lev's 1989 work. The phrases "financial reporting quality" and "earnings quality" have evolved, resulting in ubiquitous FRQ proxies that are classed into marked-based and accounting-based earning proxies (Barac, 2021). Abnormal accruals and accrual quality are popular earnings quality measures (Perotti & Wagenhofer, 2014). Research using this metric frequently divides accruals into a component related to the company's basic earning process and anomalous losses considered discretionary. Increased anomalous accruals may impair earnings quality since they are less consistent. There is no one way to estimate typical accrual levels for revenue-generating company operations.

This study measured FRQ using Modified Jones Model discretionary accruals. This model calculates discretional accruals by comparing financial statement accruals to the model's projected accruals for regular company operations (Costa & Soares, 2021). The revised Jones Model is used to estimate discretionary accruals in financial statements, much as the old. Considering company circumstances and industry-specific criteria improves earnings management identification (Costa & Soares, 2021). Regression methodology predicts non-discretionary accruals based on financial characteristics, and discretionary accruals are calculated by subtracting them from total accruals. This inquiry defines FRQ as earnings quality, meaning fewer management manipulation and blunders.

Shehu and Bello (2013) say earnings management is always less lucrative, whereas Farouk, Magaji, and Egga (2019) say enterprises that cook their financial books are heavily indebted and develop slower. Managers falsify earnings when operational performance is good and employ "Big Bath Accounting" when it is low, according to Shehu and Bello (2013). huge bath accounting, the purposeful manipulation of financial accounts to make bad outcomes seem worse to improve future results (Shehu & Bello, 2013), has caused several huge corporations to fail. World-leading energy corporation Enron committed accounting fraud by disguising loans in off-balance sheet businesses, culminating in its 2001 bankruptcy (Petra & Spieler, 2020). WorldCom, a telecommunications corporation, used accounting fraud to exaggerate earnings, resulting in one of the largest American bankruptcies (Petra & Spieler, 2020).

Kenyan brokerage firms Thuo Stockbrokers, Nyaga Stock, and Discount Securities were accused of large bath accounting (Minja, 2016). Their failure or receivership returned Ksh. 3 billion to investors (Minja, 2016). In 2015, Uchumi Supermarkets Ltd. management acknowledged to creative accounting until 2014, when new management took control (Kamau, 2016). Cytonn Kenya, an investment and real estate corporation, was accused of manipulating asset values and liabilities in 2018 to boost financial performance in future reporting years (Ssekubwa, 2022). Fraudulent financial statement manipulation and asset theft have brought down Mumias Sugar Company, Nakumatt Limited, and Chase Bank. These high-profile incidents demonstrate the grave effects of inadequate FRQ and financial statement falsification. Understanding these local

and global circumstances stresses the need to analyze business characteristics in Kenya's agro-based industry to mitigate financial manipulation risk and improve financial reporting quality.

Fajaria and Insalita (2018) take leverage to mean the amount of borrowed capital used to fund business investments and operations. It contributes to shaping the capital structure and the financial risk profile of a firm. When the company is doing well, high leverage can increase returns; however, it can also increase the risk of financial distress during economic crisis. In previous research, financial leverage is found as the ratio of debt obligations to total assets or equity, with debt-to-equity and debt- to-asset the preferred ratios. In the current study, leverage was quantified using debt-to-total assets ratio as proposed by Shehu and Bello (2013). A high debt to total assets ratio shows higher leverage, potentially affecting the FRQ due to increased financial risk and potential pressure from creditors.

Fajaria and Insalita (2018) define liquidity as the firm's ability to settle its immediate financial obligations using the readily available assets. It's a major component of a firm's financial health as it ensures a firm's operation sustainability and the ability to grab investment opportunities. In literature, liquidity is measured using current or acid-test ratio (Fajaria & Insalita, 2018). Current ratio is found by dividing the firm's current assets with current liabilities. On the other hand, acid-test ratio only takes into consideration the most liquid assets. In this study, liquidity was measured using current ratio. A high ratio showed better liquidity, and examining its influences FRQ shed light on whether adequate liquidity ensured accurate and reliable financial disclosures.

Jihadi et al. (2021) takes profitability to mean the firm's ability to yield earnings from its business operations, acting as a major indicator of financial performance. This performance measure influences a company's dividends payout, growth potential, and overall financial health. In prior research, profitability has been quantified using metrics like ROA and ROE. These ratios express a firm's net income as a percentage of its assets or equity, respectively (Jihadi et al., 2021). The current study employed ROA to measure profitability, found by comparing net income to total assets. A high ROA signified better profitability, which has potential to affect financial reporting as higher profits may show greater capacity to invest in robust internal controls and reporting processes.

According to Fajaria and Insalita (2018), firm growth measures the changes in a firm's size, market presence, and operations over time. It can be seen through market diversification, expansions, acquisitions, or new product launches. Firm growth is important because it demonstrates a company's potential for increased future revenue and value creation. Researchers commonly assess firm's growth using metrics like asset growth rate or revenue growth rate (Fajaria & Insalita, 2018). The present study measured a firm's growth using the annual revenue growth rate that compares the change in a firm's revenue at a given point. A high revenue growth rate indicate strong growth potential, and the impact of firm growth on the FRQ was explored to understand whether rapid growth affects the accuracy and transparency of financial disclosures.

Currently, there are a total of 62 companies from the telecommunication, commercial and services, insurance, agriculture, banking, manufacturing, automobile and accessories, energy and petroleum, real estate investment trust, and exchange traded funds sectors listed at the NSE (Nairobi Securities Exchange PLC, 2022). There are seven listed agricultural companies, namely Williamson Tea Kenya Plc, Eaagads Ltd, Sasini Plc, Limuru Tea Co. Ltd, Kakuzi Plc, Real Vipingo Plantations, and Kapchorua Tea Kenya Plc (Nairobi Securities Exchange PLC, 2022). Eaagads Ltd was established in 1946 and deals with coffee. Sasini Plc deals in both tea and coffee while Kakuzi Plc it deals with the cultivation and manufacturing of products like

macadamia, tea, commercial forestry, avocados, and blueberries. Kapchorua Tea Ltd, Limuru Tea, and Williamson deal in processing, plantation, selling, and purchasing of tea.

Statement of the Problem

In Kenya, the FRQ is still weak compared to those of advanced countries thus hindering the growth of efficient equity markets (Outa, 2011). Also, the Kenyan settings as regards compliance and advancement, corporate governance, accounting standards, and institutional structure differ from those in the advanced jurisdictions (Outa, 2011). In the view of this, it is unclear whether evidence from Kenyan firms, particularly agro-based firms in respect of FRQ align with those of developing or developed countries.

FRQ of quoted agricultural firms in Kenya is a complex issue that is affected by various controllable and non-controllable firm characteristics. Even with this, there is a little evidence showing the effect of firm characteristics and FRQ in the context of NSE. Studies done on the correlation between these variables have had mixed results. For example, studies have uncovered that liquidity, profitability, board meetings, and institutional shareholding have a positive, significant relationship with the FRQ (Al Ayub Ahmed, 2012; Ishak, Amran, & Abdul Manaf, 2018; Hamidzadeh & Zeinali, 2015; Olowookere, Ajiboye, & Ibrahim, 2021; Farouk, Magaji, & Egga, 2019; Soyemi & Olawale, 2019; Hassan & Bello, 2013). Other studies have found that profitability, growth, liquidity and leverage positively but insignificantly influence FRQ (Olowookere, Ajiboye, & Ibrahim, 2021; Farouk, Magaji, & Egga, 2019). Most of these studies have been done on developed countries and the results cannot be generalized to developing countries like Kenya due to geographical locations and unique economic environment.

Besides, studies that have been done in Kenya have not directly examined the effect of firm characteristics on FRQ. For instance, Wasonga (2021); Wesonga et al (2020) established the relationships between audit committee, firm attributes, and FRQ of government agencies. Firm characteristics were used to moderate the link between FRQ and audit committee. All firm attributes, save for liquidity, had mediating effect on the correlation between audit committee and FRQ. Mohamed (2021) conducted a study to examine how FRQ influences investment decisions among quoted companies. It was found that accrual quality, conservative, and earning management (independent variables) strongly influenced the quality of investment decisions of firms. Thus far, no single study had been conducted to investigate the influence of firm attributes on the FRQ, particularly in Kenya's agricultural sector. As such, gaps still exist in the literature as regards the understanding of the combined effect of different firm attributes on the FRQ of quoted agricultural firms. Given the pervasiveness and severity of the problem, and the research gaps in the findings by several studies done on this topic, a comprehensive study was warranted to explore how firm attributes influence FRQ among listed agricultural firms.

Research Objectives

General Objective

This inquiry was conducted was to ascertain the influence of firm characteristics on FRQ among firms listed in the agricultural sector at the NSE

Specific Objectives

In specific, the study aimed to:

i. Determine the influence of leverage on financial reporting quality of agricultural firms listed at the Nairobi Securities Exchange, Kenya
ii. Establish the impact of profitability on financial reporting quality of agricultural firms listed at the Nairobi Securities Exchange, Kenya

iii. Analyze the effect of firm growth on financial reporting quality of agricultural firms listed at the Nairobi Securities Exchange, Kenya

iv. Find out the influence of liquidity on financial reporting quality of agricultural firms listed at the Nairobi Securities Exchange, Kenya

Research Hypotheses

The null hypotheses corresponding to the specific objectives tested included:

$H0_1$: Leverage has no significant effect on financial reporting quality of listed agricultural firms listed at the NSE

$H0_2$: Profitability has no significant effect on financial reporting quality of agricultural firms listed at the NSE

$H0_3$: Firm growth does not significantly influence financial reporting quality of agricultural firms listed at the NSE

$H0_4$: The is not significant effect of liquidity on financial reporting quality of agricultural firms listed at the NSE

LITERATURE REVIEW

Theoretical Framework

Agency Theory

This theory was proposed by Michael Jensen and William Meckling (1976) and lists principal and agent as the two main parties in a corporation (Taj, 2016). The agent, in this case the management, is entrusted with managerial services of the company by the principal (the owner of the firm). The theory proses that the relationship between shareholders and managers is characterized by a principal-agent problem. This agency problem is reflected by the presence of gaps in amount of information possessed by the principal and agent (information asymmetry). The managers are believed to be more informed than shareholders and thus the agents can influence the process of financial reporting to advance their interests (Taj, 2016). The financial reports are deemed an important tool for communicating with the stakeholders and are determined by policies put forth by the management. Earnings management is one of the strategies that can be used to lower FRQ. In their studies, Hassan and Bello (2013) found that accounting books are cooked when the organizational management utilizes considerations in arranging transactions and reporting financial activities to manipulate the financial statements to influence contractual outcomes that rely on financial reports or deceive stakeholders about the firm's financial position.

Signaling Theory

Proposed by Michael Spence in 1973, this theory explains how firms or people with asymmetric information use signal to convey credible information to others. The major argument of this theory is that in situations where one party is more informed that the other, the less informed party can use signals to infer the concealed characteristics of the more-informed party. In the context of financial reporting, the theory posits that firms may choose to use financial reporting as a signaling tool to showcase their quality to external stakeholders (Mitnick, 2015). The theory argues that companies who growth and profitability prospects are high often have high quality financial reporting because they have more to gain from signaling their quality to external stakeholders. Additionally, high liquidity levels may signal the quality of financial reporting because firms with high liquidity are less likely to be financially distressed and hence have less incentive to manipulate financial reporting. Conversely, firms with higher leverage levels have lower quality financial reporting because they tend to experience financial distress and have

increased incentive to falsify their financial reporting to conceal poor performance (Mitnick, 2015).

Positive Accounting Theory (PAT)

PAT was popularized by Jerold Zimmerman and Ross Watts in 1986, and concerns itself with describing accounting practices (Patty et al., 2021). PAT was developed to explain and predict the firms that will not utilize certain accounting methods. This theory does not suggest which approach a firm should employ. Positive accounting theory explores the relationship between different people involved in the provision of organizational resources and how accounting is applied to ensure effective functioning of such relationships (Patty et al., 2021). PAT assumes that all people's actions are driven by self-interest and that people will often act opportunistically to the degree that their actions will result in increased wealth (Patty et al., 2021). The proponents of this theory argue that firms choose accounting methods that align with their incentives, like reducing reported profits to minimize tax liabilities or maximizing reported profits to attract investors.

Empirical Review

Firm Leverage and Quality of Financial Reporting

In Kenya, Wasonga (2021); Wesonga et al (2020) explored the mediating role of firm attributes on the correlation of audit committee with FRQ of government agencies. The results revealed that leverage mediated the link between audit committee an FRQ. However, these studies do not directly explore the relationship between leverage and the FRQ in a broader context, like listed agro-based companies. The present study investigated how leverage influences FRQ within the context of listed agro-based firms at the NSE. Although Wasonga's (2021) study offers valuable insights into different factors that can influence quality of financial disclosures, the current study provided a more focused understanding of how leverage, as a specific firm attribute, influenced the completeness, accuracy, and transparency of financial reports in agricultural sector.

Profitability and Quality of Financial Reporting

Soyemi and Olawale (2019) investigated the influence of firm attributes on the accounting quality of manufacturing firms listed at the Nigeria Stock Exchange between 2009 and 216. The sample comprised of 2 listed non-financial firms. Profitability was shown to positively influence quality of financial disclosures; profitable firms have high FRQ. Therefore, profitability needs to be seen as an indicator of poor or high quality accounting reports. The study suggested that all firm characteristics, except growth and tangibility, needs to be encouraged by all non-financial firms and the regulating government agencies due to the role in limiting those in management positions from acting deviously while preparing financial reports. However, the study failed to focus specifically on agricultural sector and there may exist a gap in the literature concerning the link between profitability and FRQ within the Kenyan agricultural sector. This study addressed this gap by narrowing the focus to the Kenya's agricultural sector, providing insights into how profitability influences FRQ in this specific industry.

Firm Growth and Quality of Financial Reporting

Krishnan et al. (2021) provided empirical evidence that there is substantial variation in the FRQ across firm life cycles. Compared to the mature phase, the study observed a lower accounting information quality in the introduction, growth, and decline phases of a company's life cycle. Revenues and expensed were found to be poorly matched in the decline, growth, and introduction phases. This signifies aggressive recognition or conservative expenses resulting in less informative earnings and as a result reduced quality of financial reporting. Krishnan and his

colleagues found clear signs that companies tend to materially misstate their statements during the introduction and growth phases as opposed to mature firms. While this study examined the broad concept of firm life cycle, it failed to specifically address the relationship between firm growth and FRQ. Efforts were made to bridge the gap by exploring how the growth factor of agro-based firms influences FRQ.

Liquidity and Quality of Financial Reporting

Akhgar and Karami (2014) studied the inefluence of firm attributes on the FRQ of 120 firms listed at Tehran Stock Exchange. The researchers examined the effects of seven factors in three categories: performance characteristics such as firm growth, profitability, and liquidity; structural characteristics such as leverage and firm size; and monitoring characteristics like institutional shareholding and board composition. The findings revealed that firm growth, size, profitability, and liquidity positively and significantly on FRQ. While this inquiry establishes the link between firm attributes and FRQ, it focuses on the context of the Tehran Stock Exchange that may differ from the Kenyan agricultural industry. The current study narrowed its focus on the agricultural sector and examined how liquidity influences the FRQ in this particular context.

RESEARCH METHODOLOGY

A correlational study design from quantitative methodology was employed to ascertain the effect of firm attributes on FRQ. Examining the correlations between profitability, firm growth, liquidity, and leverage with FRQ measures helped determine the direction and strength of these relationships quantitatively.

This study will employ two steps regression. The modified Jones Model adjusted to split up the non-discretionary (NDA) amount from the discretional accruals (DA) amount of the total accruals was as follows:

$$DA = \frac{TA}{At-1} - \beta 1\frac{1}{At-1} + \beta 2\,\frac{\Delta \text{ in Revit} - \Delta \text{ in Recit}}{At-1} + \beta 3\,\frac{PPE}{At-1}$$

Where:

DA = discretionary accruals

TA = total accruals

Ait-1 = total assets in year t-1 for firm i,

Δ in Rev_{it} = revenues in year t less revenues in year t-1 for firm i,

Δ in Rec_{it} = receivables in year t less revenues in year t-1,

PPE = gross fixed assets (property, plant and equipment) in year 1 for firm i,

The values obtained for FRQ will be substituted as values for FRQ in the study model as follows:

$$FRQit = \beta 0_{it} + \beta 1LEV_{it} + \beta 2PROF_{it} + \beta 3GRW_{it} + \beta 4LIQit + \varepsilon_{it}$$

Where;

FRQ = Financial Reporting Quality

LEV = Leverage

PROF = Profitability

GRW = Firm Growth

LIQ = Liquidity

$\beta 0$ = Constant

B1-5 = Coefficients of the predictor variables

ε = Error term

i = Firm

t = Year

ε_{it} = earning management

The current study targeted seven listed agricultural companies at the NSE for a five-year period starting 2017 to 2022. These companies were deemed appropriate for this study as they represent a critical sector within the economy and data is readily available on their websites. The agricultural sector contributes immensely to the nation's economic development, accounting for 27% and 70% of Kenya's GDP and employment, respectively.

RESULTS AND DSCUSSIONS

Descriptive Analysis

The findings in Table 1 summarizes the descriptive statistics of discretionary accruals, leverage, profitability, firm growth, and liquidity. The table captures the number of observations (N=35 for each study variable), standard deviation, range, and mean.

Table 1 Descriptive Statistics Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DA	35	.00	.11	.0413	.03033
Leverage	35	.01	27.10	5.1923	7.86441
Profitabilty	35	-7.03	12.71	3.3347	5.01071
Firm_Growth	35	-72.93	187.24	15.1709	43.30643
Liquidity	35	105.45	1170.05	601.1899	294.03225
Valid N (listwise)	35				

Source: Research Data, 2024

Table 1 above reveals that averagely, the firms considered under study period have a low level of discretionary accruals, meaning that they have a relatively low earnings management. This is shown by a mean of 0.0413 with the values ranging from 0 to 0.11 for all firms considered. A standard deviation of 0.03033 indicate a moderate variation, demonstrating some diversity in the degree of earning management across companies considered under the study period. A moderate standard deviation along with a low mean of DA implies that while earning management via discretionary accruals is not common in the sample, there is some degree of variation.

The mean for leverage was 5.1923 implying that, averagely, firms were using a moderate level of debt compared to equity. An elevated standard deviation of 7.86441 shows signification variation in leverage across companies, with some companies having high leverage ratios compared to others. A range of 0.01 to 27.10 show considerable variability in how much debt firms utilize relative to their equity, influencing FRQ differently. This finding is supported by Gosh and Moon (2010) who found a negative relationship between debt financing and earnings quality at higher debt levels and positive at low debt levels with an inflection point about 41%. However, the study contradict the findings by

In terms of profitability, a range of -7.03 to 12.71 signify that some companies are recording huge profits while others are experiencing losses (negative profitability). Averagely, most firms are generally profitable as shown by a mean of 3.3347; however, there are outliers with negative profit. The standard deviation is relatively high (5.01071), showing that profitability varies considerably across the companies. This reveals diverse financial stability across the studied firms, which may affect DA and hence the FRQ.

A range in firm growth from -72.93 to 187.024 along with a very high standard deviation of 43.30643 imply that as some firms are rapidly growing, others are shrinking. A mean growth rate of 15.1709 means that, averagely, the companies under study are expanding.

A liquidity range of 105.45 to 1170.05 and standard deviation of 294.03225 mean that all companies considered during the study period have liquidity well above the minimum threshold required to meet short-term obligations. However, some firms are more liquid compared to others. A mean of 601.1899 indicate that, averagely, the firms examined have huge liquid assets in relation to liabilities.

Diagnostic Tests

Test for Multicollinearity Results

A correlation matrix was employed to test for multicollinearity. The findings are shown in Table 2 below

Table 2: Multicollinearity test results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.016	.011		1.390	.175		
	Leverage	.000	.001	-.058	-.367	.716	.980	1.020
	Profitabilty	-.002	.001	-.366	-2.071	.047	.770	1.299
	Firm_Growth	-8.080E-5	.000	-.115	-.737	.467	.982	1.019
	Liquidity	5.863E-5	.000	.568	3.230	.003	.776	1.288

a. Dependent Variable: DA

Source: Research Data, 2024

The independent variables were leverage, profitability, firm growth, and liquidity. A VIF for each of these variables was computed to test if there is any correlation between these variables and their impact. As observed by Wallach (2007), A VIF of greater than 10 suggest a potential problem, a VIF of ≥ 3 shows collinearity, and $\leq$ reveals no Multicollinearity (Yator & Gitagia, 2023). The collinearity statistics above show that the VIF are all below the common cutoff of 10 and more specifically below 3, with the highest being 1.299 for profitability, showing absence of Multicollinearity among study parameters. Overall, the results imply that Multicollinearity need not to raise fear with regard to the regression model and predictor variables are reliably interpreted without undue influence of Multicollinearity. This is consistent with Kamau & Gitagia, 2024).

Test for Normality Results

In this study, Shapiro-Wilk test was employed to check for data normality.

Table 3: Test for normality results

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.087	35	.200*	.966	35	.342

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: Research Data, 2024

The Shapiro-Wilk test results in table 3 above shows a statistic of 0.966 with a significance value of 0.342. Since p-value exceeds the common cutoff of 0.05, it means the null hypothesis arguing that residuals are distributed normally must be rejected. In short, the unstandardized residuals failed to deviate considerably from normality. The results support the validity of the regression outcomes and propose that further statistical inferences can be drawn based on this model confidently.

Heteroscedasticity Test Results

To test for variation in error term between the predictor variables and the residuals, Breusch-Pagan test was conducted. If p-value is lower than the significance cut off of .05, the null hypothesis need to be accepted and the resulting residuals have a constant variance (are homoscedastic). Table 4 below shows the test results:

Table 4: Heteroscedasticity test results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	4	.000	.834	.514[b]
	Residual	.000	30	.000		
	Total	.000	34			

a. Dependent Variable: Res2

b. Predictors: (Constant), Liquidity, Leverage, Firm_Growth, Profitabilty

Source: Research Data, 2024

Table 4 above present the Breusch-Pagan test results for heteroscedasticity, where the predicted variable is the R-squared from the original regression model. The predictor variables are liquidity, profitability, firm growth, and leverage. The results show that regression sum of squares is close to zero, with 4 degrees of freedom, leading to a mean-square of 0.000. The case is also true at 30 degrees of freedom. The results also reveals an F-statistic of 0.834 with an associated sig. value of 0.514, which is above the threshold level of 0.05. This higher level implies that the F-statistic is insignificant, showing that the model does not adequately explain the deviations in the squared-residuals. As such, the assumption of homoscedasticity (constant variance of residuals) as proposed by Wallach (2007) is not violated, and the residuals are proportionately distributed across all predictor variables, thereby supporting the validity of the study model.

Correlation Analysis

Table 5 below shows the findings of a Pearson correlation coefficient between DA, the predicted parameter, and leverage, liquidity, profitability and firm growth, the predictor variables, along with level of significance.

Table 5 Correlation Matrix

Correlations

		DA	Leverage	Profitabilty	Firm_Growth	Liquidity
Pearson Correlation	DA	1.000	-.073	-.110	-.107	.391
	Leverage	-.073	1.000	.066	-.113	-.008
	Profitabilty	-.110	.066	1.000	.068	.471
	Firm_Growth	-.107	-.113	.068	1.000	.047
	Liquidity	.391	-.008	.471	.047	1.000
Sig. (1-tailed)	DA	.	.338	.265	.271	.010
	Leverage	.338	.	.352	.260	.483
	Profitabilty	.265	.352	.	.349	.002
	Firm_Growth	.271	.260	.349	.	.394
	Liquidity	.010	.483	.002	.394	.
N	DA	35	35	35	35	35
	Leverage	35	35	35	35	35
	Profitabilty	35	35	35	35	35
	Firm_Growth	35	35	35	35	35
	Liquidity	35	35	35	35	35

Source: Research Data, 2024

Table 5 above shows that leverage and DA had a Pearson correlation r= -0.073, showing a weak negative correlation. The correlation is non-significant (p=0.338), implying that in the studied sample, leverage reduced FRQ by almost negligible amount.

The findings also revealed that profitability and DA had a Pearson correlation r = -0.110, which points to a weak negative correlation. The correlation is also statistically non-significant as (p=0.265) is higher than threshold of 0.05. An implication for this correlation is that profitability reduced FRQ.

The results further found that firm growth and DA had a correlation of r = -0.107 pointing to a weak negative relationship. The elevated P-value for firm growth, 0.271, more than the cutoff of 0.05, shows that the correlation is less significant. This implies that firm growth reduced the FRQ. These findings align with the postulations put forth by the positive accounting theory, agency theory, and signaling theory, which maintain that growth pressures can result in lower FRQ.

Finally, the results show that liquidity and DA had a Pearson correlation r = 0.391, suggesting that liquidity and DA had moderately strong positively correlation. This means that liquidity increased FRQ of listed agricultural companies. The relationship is statistically significant with p-value of 0.010 less than the cut off of .05.

Regression Analysis

The study conducted various tests to ascertain the validity and reliability of the data before the performing regression analysis. The VIF values found no multicollinearity among the predictor variables (firm growth, leverage, liquidity, and profitability). The normality test results (Shapiro-Wilk) revealed that residuals are normally distributed, hence meets the normality assumption. Finally, the Breusch-Pagan test met the constant variance assumption. Since all these assumptions were satisfied, regression analysis was done using discretionary accruals as the predicted variable and growth, leverage, liquidity, and profitability as independent variables. The final model shed light on how these factors influence DA.

The study employed a two-step regression. As measured by DA, FRQ was regressed against ratio of total assets to total current liabilities, net income to total assets, current revenues minus

previous year's revenue over previous year's revenue, and total debts to total assets. Table 6 below shows the results for regression analysis

Table 6: Multiple regression results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.074	.019		-3.938	<.001
	inv_A_t_minus_1	3873.608	6691.753	.091	.579	.567
	Delta_Revit_minus_Delta_Recit	-.082	.107	-.121	-.769	.448
	PPE_scaled	.041	.014	.450	2.859	.008

a. Dependent Variable: TA_scaled

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.016	.011		1.390	.175		
	Leverage	.000	.001	-.058	-.367	.716	.980	1.020
	Profitabilty	-.002	.001	-.366	-2.071	.047	.770	1.299
	Firm_Growth	-8.080E-5	.000	-.115	-.737	.467	.982	1.019
	Liquidity	5.863E-5	.000	.568	3.230	.003	.776	1.288

a. Dependent Variable: DA

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.528[a]	.279	.183	.02742

a. Predictors: (Constant), Liquidity, Leverage, Firm_Growth, Profitabilty

b. Dependent Variable: DA

Source: Research Data, 2024

From Table 6 above, the first regression included residuals from the modified Jones Model which corresponded to the discretionary portion of accruals used to obtain the values for FRQ. The first unstandardized coefficient reveals that $\frac{1}{At-1}$ had a coefficient of 3873.608, $\frac{\Delta \text{ in Revit} - \Delta \text{ in Recit}}{At-1}$ -0.82, and PPE scaled 0.041. Therefore, Model adjusted to split up the non-discretionary portion from the discretional accruals portion of the total accrual was as follows:

$$DA = \frac{TA}{At-1} - 3873.608\frac{1}{At-1} - 0.82\frac{\Delta \text{ in Revit} - \Delta \text{ in Recit}}{At-1} + 0.041\frac{PPE}{At-1} \quad \textbf{...3.3.1}$$

Where:

DA = discretionary accruals,

TA = total accruals

Ait-1 = total assets in year t-1 for firm i,

Δ in Rev_{it} = revenues in year t less revenues in year t-1 for firm i,

Δ in Rec_{it} = receivables in year t less revenues in year t-1

PPE = gross fixed assets, property, plant and equipment in year 1 for firm i,

The values obtained from the first regression was replaced as values for FRQ in the study model. The second unstandardized coefficients reveals a constant of 0.016, implying that when all the four variables (leverage, liquidity, profitability, and firm growth) were equated to zero, then the discretionary accruals would be 0.016. The coefficient of leverage is 0.000 implying that changes in leverage would not result in significant change in discretionary accruals. The profitability beta coefficient is -0.002, meaning that an increase in profitability by one unit would result in a decrease in discretionary accruals by -0.002. Firm growth had a coefficient of -8.080E-5, which is very small, suggesting a negligible negative relationship with discretionary relationship. Finally, liquidity has a coefficient of 5.863E-5, showing that leverage positively correlates with discretionary accruals.

Substituting these values, the final regression model is as follows:

$FRQit = \beta 0_{it} + \beta 1LEV_{it} + \beta 2PROF_{it} + \beta 3GRW_{it} + \beta 4LIQit + \varepsilon_{it}$

$FRQit = 0.016 + 0.000LEV_{it} + -0.002PROF_{it} -8.080E\text{-}5GRW_{it} + 5.863E\text{-}5LIQit + \varepsilon_{it}$ 3.3.2

Where:

FRQ = Financial Reporting Quality

LEV = Leverage

PROF= Profitability

GRW = Firm Growth

LIQ = Liquidity

ε_{it} = Error Term

0.016 = Y-intercept or Constant term

The findings in Table 6 above shows an R-squared of 0.279, indicating that the predicted variables (leverage, liquidity, firm growth, and profitability) explain 27.9% of the change in discretionary accruals. This means that the predictor parameters incorporated into this model had low explanatory power on financial reporting quality, with other excluded parameters explaining 72.1% of the changes in DA. The adjusted R-squared, which explains what happens to R-squared if other variables are excluded or included in the model, was 0.183, showing that regression model explained 18.3% of the changes in DA after accounting for other predictor variables.

Effect of Leverage on Financial Reporting Quality

$H0_1$: Leverage has no significant effect on financial reporting quality of listed agricultural firms listed at the NSE

The first hypothesis aimed to examine the relationship between leverage and FRQ is statistically significant. The findings in Table 5 reveals a Pearson correlation r= -0.073 between leverage and DA, showing a weak negative correlation between the two. The results also show that leverage had a P-value of (p=0.338, >0.05) indicating that the relationship between the two was statistically insignificant. Therefore, the inquiry failed to reject $H0_1$ at α=0.05 and inferred that leverage and FRQ are insignificantly correlated.

The findings align with Agency Theory proposed by Michael Jensen and William Meckling (1976) which posits that information gaps possessed by firm managers and shareholders may create incentives to prepare reports that are favorable to them as opposed to shareholders (Taj, 2016). Highly leveraged firms are heavily scrutinized by creditors and engage in debts covenants

and hence huge agency costs. Those charged with management may be compelled to cook financial reports to ensure compliance with debt covenant, potentially compromising FRQ. More so, the findings concur with positive accounting theory which states that firms with high leverage may prioritize accounting practices to avoid unfavorable outcomes like high interest costs or covenant violations, resulting in reduced reporting quality.

Effect of Profitability on Financial Reporting Quality

$H0_2$: *Profitability has no significant effect on financial reporting quality of agricultural firms listed at the NSE*

The inquiry aimed to ascertain if the relationship between profitability and FRQ is statically significant. The findings (see Table 5) revealed that profitability and DA had a correlation of r= -0.110, also indicating weak negative correlation. Further, the findings revealed that profitability had a P-value of ((p=0.265, >0.05), showing that the relationship is less significant. Thus, the inquiry failed to reject $H0_2$ at α=0.05 and deduced that profitability does not significantly influence FRQ. The study findings are inconsistent with the positive accounting theory, agency theory, and signaling theory, which suggest that higher profitability would translate into improved FRQ.

Effect of Firm Growth on Financial Reporting Quality

$H0_3$*: Firm growth does not significantly influence financial reporting quality of agricultural firms listed at the NSE*

The third hypothesis aimed to check of the relationship between firm growth and FRQ was statistically significant. Results in Table 5 above show that firm growth had a correlation of r= -0.107 suggesting weak negative relationship. The firm growth had P-value (P-value= 0.271>0.05) implying that the correlation was less significant. Therefore, the inquiry failed to reject $H0_3$ at α=0.05 and deduced that profitability does not significantly influence FRQ. These findings align with the postulations put forth by the positive accounting theory, agency theory, and signaling theory, which maintain that growth pressures can result in lower FRQ.

Effect of Liquidity on Financial Reporting Quality

$H0_4$*: The is not significant effect of liquidity on financial reporting quality of agricultural firms listed at the NSE*

The final hypothesis aimed to examine if relationship between liquidity and FRQ as measured by DA for listed agricultural firms is there is statistically significant. The results show that liquidity had a correlation of 0.391 indicating a moderate positive relationship between liquidity and DA (see Table 5). The results further revealed that liquidity had a P-value (P-value = 0.010 <0.05), demonstrating that the link between the two is statistically significant. Hence, the study rejected $H0_4$ and concluded that the relationship between liquidity and FRQ is statistically significant. The positive significant relationship between liquidity and FRQ is supported by agency theory which argues that firms with higher liquidity have reduced pressure from external funding, thus lowering the incentives for earnings management, hence translating into higher FRQ. Also, the findings support the proposition of the signaling theory that companies with ample liquidity often want to signal financial health and stability, thus feeling compelled to prepare better financial reports. More so, the findings are supported by positive accounting theory which predicts that firms with higher liquidity have low motivation to manipulate their books of accounts to meet debt obligations or secure external financing.

Conclusions and Recommendations

Conclusion

The study found that agricultural firms considered under the study were using a moderate level of debt to equity. Also, debt financing was shown to be negatively correlated with FRQ. It was concluded that a rise in the level of debt financing lowered the FRQ. The study findings were backed by positive accounting theory and agency theory but opposed by signaling theory. Also, the findings were supported by some authors and also opposed by others.

Regarding objective two, it was uncovered that some companies are recording huge profits while others negative profitability. On average, agricultural firms are profitable. The finding also found a weak negative correlation between profitability and FRQ. As such, the study concluded that growth in a company's profitability would leads to a decrease in FRQ. The conclusion is opposed by different theoretical literature, including positive accounting theory, agency theory, and signaling theory. The inquiry also aligns with some empirical literature and opposed by others.

In the third objective, the study documents that some firms are rapidly expanding while others shrink. A weak negative link between firm growth and FRQ was established. Therefore, the study concluded that as firms expand, FRQ is reduced. The findings are supported by different empirical literature such as positive accounting theory, signaling theory, and agency theory which argue that growth pressure translates into low FRQ. This conclusion is also supported by different empirical studies and opposed by others.

Finally, concerning liquidity, the study found that firms have liquidity well above the minimum threshold required to settle short-term obligations. However, some firms were found to be more liquid than others. Also, a strong positive correlation between liquidity and FRQ was found. The researcher concluded that an increase in a firm's liquidity translates into improved FRQ. This conclusion is supported by theoretical literature such as positive accounting theory, agency theory, and signaling theory. The conclusion is also supported by different empirical studies and opposed by others.

Policy Implications and Recommendations of the Study

Based on the study results and its resulting conclusions, several policy and practice recommendations are made. In the first objective, a weak negative effect of leverage on FRQ was established. The results for hypothesis test found that an increase in leverage led to a decrease in FRQ. This implies that highly-leveraged firms may not emphasize the need for FRQ. While the effect is weak, ensuring that firms with high leverage maintain quality financial reports to safeguard shareholders and preserve transparency. Therefore, policymakers and regulators should consider adopting stricter reporting requirements for firms with high leverage, such as improved monitoring and strong disclosure standards to prevent earnings management and ensure reporting standards.

Regarding profitability, the inquiry uncovered that profitability insignificantly influenced FRQ. Specifically, a weak negative effect of profitability on FRQ was established. This weak negative relationship means that profitable firms may not often produce quality financial reports. There are cases when managers may be compelled to manipulate financial books even when the company reports huge profits. It is recommended that firms adopt practices that emphasize transparency in FRQ, irrespective of profitability levels. This may entail establishing penalties for those who engage in earnings management and creating incentives for those that consistently prepare quality financial reports.

Also, firm growth was found to have a weak negative relationship with FRQ. This implies that fast-growing firms may be forced to cook their books due to the pressure to maintain a positive growth trend. As such, there is a need for firms to realistically manage stakeholder expectations that come with the growth prospects. The government should establish laws and regulations that prevent growth-oriented firms from engaging in financial deception. It is also recommended for financial analysts and investors to get comprehensive education and training on the importance of prioritizing the quality of growth and transparency over immediate gains.

Furthermore, a positive significant link between liquidity and FRQ was found, implying that liquid firms tend to prepare quality reports. This underscores the need to keep liquidity at optimal to ensure reporting accuracy and transparency. It is recommended that firms maintain strong liquidity positions because it is associated with better FRQ. Industry organizations and regulatory bodies should offer guidance on sound liquidity management practices that aim to improve both reporting standards and firm stability.

Overall, it was found that FRQ is influenced by different internal and external pressures, including growth, leverage, profitability, and liquidity. Although liquidity firms was found to have a significant impact on FRQ, it is important that all firms (irrespective of their characteristics) prioritize quality and accurate reporting. It is therefore recommended that corporate governance frameworks need to be reinforced to ensure that firms establish robust and resilient internal controls that alleviate the risk of earnings management. This may include ensuring that executives are incentivized to prioritize transparency and sustainable financial health, forming strong audit committees, and improving board oversight. Also, firms should invest in training programs that aim to educate managers and accounting staff on the risks of earning manipulation and benefits of transparency in reporting. Firms should partner with regulatory agencies to establish comprehensive training workshops and programs focused on fostering ethical financial reporting.

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