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Effect of Ownership Structure on Earnings Management in Listed Manufacturing Firms at Nairobi Securities Exchange, Kenya

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Abstract

A firm's ownership structure is important to the effectiveness of monitoring the mechanisms used to manipulate earnings. Based on the ownership structure of a firm, management can feel pressure to manage earnings by manipulating the company's accounting practices to meet financial expectations. This paper focuses on how the three components of ownership structure affect earnings management of listed firms. That is to determine the effect of ownership concentration, managerial ownership, and institutional ownership on earnings management of listed firms. As per the jones and modified Jones model, discretionary accruals were used as a measure of earnings management. The study deployed a random effects model and STATA software for data analysis. Data was collected for the period from 2011 to 2019 from all listed manufacturing firms in Nairobi securities exchange. The study findings indicated that managerial ownership, institutional ownership and ownership concentration have an insignificant effect on earnings management. The study indicated that while majority shareholders are keen to closely monitor the management to ensure that their interests are well protected, this can only be attained if they have requisite skills, knowledge, and experience. The study also indicated that most pertinent is to have strong internal controls in place that seals all possible loopholes that could be exploited by the management to manipulate earnings. The study considered two control variables, firm size and growth which were also found to have an insignificant effect on earnings management.

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1. Introduction

The separation of ownership and control has seen the management pursue own interests at the expense of shareholders (principal). This basically is the agency problem where the agent fails to act in the best interests of the principal. Partly the pursuant of self-interests have been manifest in the form of earnings manipulation. Alareeni (2018) explains that the management manipulates earnings in a bid to attain set performance targets which is the basis of their bonuses and salary increments. However, Iraya, Mwangi, and Wanjohi (2014) adds that the management may also manipulate earnings in a bid to smooth out earnings and to signal the market that the company presents an ideal consideration for investment.

Swai and Mbogela (2016) indicates that with strong corporate governance system in place, the loopholes exploited by top management to manipulate earnings are bound to be effectively sealed. This will eventually translate to reliable and quality financial reporting. Mohammadikhanghah, Piry, and Mansourfar (2020) opines that some of the incentives towards earnings management by top management are to earn bonuses or to enhance

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the firm ability to raise capital both in the money and capital markets. In the context of corporate governance, Alareeni (2018) opines that curtailing earnings management requires a very strong board. Specifically, Alareeni (2018) underscores the value of board independence in offering quality oversight and control to the management. Laksmi and Kamila (2018) hold that board size, board diversity and CEO duality are also critical in enhancing quality control over the management to curb earnings manipulation. However, Bao and Lewellyn (2017) indicates that even with a strong board notably a highly independent board who may not be involved in day-to-day activities, the management may connive to manipulate earnings. Ownership structure is cited as critical in giving a boast to a strong board in curtailing earnings management. Ownership structure can simply be put as the distribution of ownership of equity in an entity (Mohammadikhanghah et al., 2020). Lassoued, Attia, and Sassi (2018) indicates that managerial and institutional ownership are the key dimensions under ownership structure bound to reduce instances of earnings manipulations. Managerial ownership entails ownership of stake by the top management in an entity. This aligns their interests with those of the shareholders and this is bound to reduce the incentives for earnings manipulation as such could affect the value of their stake in the future. Institutional ownership denotes the ownership of stake in an entity by institutional investors. Bao and Lewellyn (2017) indicates that institutional investors come with Knowledge and expertise critical in providing quality oversight to the management. Other than institutional and managerial ownership, ownership concentration has been termed as critical in curbing earnings management. In summation reduction of the rising cases of earnings management in Listed Kenyan entities calls for enhanced ownership structure. Most notably is the need to enhance managerial ownership to align the interests of management to that of shareholders. The institutional ownership is also pertinent as institutional investors come with knowledge and expertise that promote quality oversight and monitoring of the corporate activities.

1.1. Statement of the Problem

The cases of earnings management continue to rise despite the advancements in global financial reporting standards and having an independent audit for all listed firms. Even in developed economies such as UK, the accounting manipulations has risen even among the FTSE 100 firms. For instance, in 2014, Tesco, one of the four largest retail firms in UK overstated its profits by £263 million. Following this revelation, the firm had its market value decline by a whooping £2bn and this meant massive shareholders' wealth. Some of the analysts pointed to a weak corporate governance in the firm (Kizil & Kaşbaşı, 2018). The case is no different in emerging economies notably China which is bound to overtake US as the largest economy by 2030. In 2020, Luckin Coffee, a Chinese coffee company revealed that it had overstated its revenues in 2019 by a whooping $328 Million (Katanga, 2020). Other than being fined $180 million for intentionally overstating the revenues and understating its net loss in 2019, the firm was delisted in US based NASDAQ. Wang (2020) holds that the company pledged to enhance its internal financial controls and adhere to best practices of corporate governance. This underscores the value of corporate governance in enhancing accountability and transparency in financial reporting. In the same year (2020), the Chinese TAL education group had about 4% of its revenues fabricated. Upon the public knowledge of the misstatement, the firm's shares dipped by 18% depicting massive loss of shareholders' wealth. Developing economies deemed to still be at infant stages of capital market development have also reported numerous cases of earnings manipulation. A survey done Ernst and Young in 2018 that focused on 100 Kenyan firms revealed that 53% of firms were overreporting their financial performance (The East African, 2018). The report raised questions on the ability of the corporate boards and auditors in the wake of the glaring misstatements of financial reports in the Kenyan Corporations. In 2015, Deloitte was accused of conniving with top management of Mumias to conceal accounting flaws at the entity which has been hardly hit by financial woes even after being bailed out by the government. Mumias Outgrowers Company (Moco) accused the company of having declared false profits and contested a Sh2.6 billion outstanding loan demand from the miller, terming it as a false entry. Indubitably there are intense cases of earnings management globally that have seen shareholders lose massively. Strong corporate governance has been recommended in curbing the rising cases of earnings management. Specifically, ownership structure has been cited as a critical in fostering accountability and transparency in financial reporting. This study aimed at examining the effect of ownership structure on earnings management.

1.2. Research Aim and Objectives

The main aim of this study was to examine the effect of ownership structure on earnings management. This was facilitated by the following research objectives;

(i) To examine the effect of managerial ownership on earnings management of listed manufacturing firms.
(ii) To examine the effect of Institutional ownership on earnings management of listed manufacturing firms.
(iii) To examine the effect of ownership concentration on earnings management of listed manufacturing firms.

2. Literature Review

2.1. Theoretical Literature

2.1.1. Agency Theory

The agency theory holds that the management is the agent who is bound to act in the best interests of the shareholders (principal). The agency problem crops up due to the manager acting to serve their interests at the expense of the shareholders. In line with earnings management, the management might manipulate earnings in

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a bid to achieve set profit targets to earn bonuses (Laksmi & Kamila, 2018). The most cited solutions to the agency problem revolve around corporate governance. For instance, managerial ownership which is a component of ownership structure aligns the interests of management to that of shareholders. Other cited solutions include board independence and board gender diversity to enhance control and oversight.

Managerial ownership is pertinent in aligning the interests of the management to the interests of the corporate owners. The management become owners of the entity as such they become more cautious in their approach to management and even in preparation of annual report. This is in recognition that any gaps in investment decisions and financial reporting could adversely affect their stake in the firm. However, Nguyen, Lien Le, and Anh Vu (2021) indicates that there are limitations of managerial ownership in that they become hesitant to pursue high risks that has potentially high returns. This could derail the growth of an entity and hence the need to explore other potential solutions to the agency problem.

Institutional ownership and ownership concentration have been hailed as other potential solutions to the agency problem. Proponents of institutional ownership hold that institutional shareholders come with immense experience in corporate and industry operations and can effectively monitor the actions of management compared to individual investors. Alzoubi (2016) indicates that ownership concentration also helps to curb cases of earnings manipulation as the top shareholders are keen to closely monitor the management activities. This also includes ensuring that the firm has strong internal controls to seal loopholes that could be exploited by the management to manipulate earnings.

2.1.2. Stakeholder Theory

Elghuweel, Ntim, Opong, and Avison (2017) explains that the management is expected act in the best interests of all stakeholders. Venturing in earnings management does not just hurt the shareholders but other stakeholders such as employees, lenders, and customers. This is because such manipulations have adverse effect on future operating performance and this could see delays in paying employees and supplies and deterioration of quality for goods sold to the customers. Outa, Eisenberg, and Ozili (2017) puts forth that a strong corporate governance is indispensable in ensuring the management balances between the diverse interests of stakeholders. Having in place a strong ownership structure notably institutional shareholders representation in the board, ensures that there is efficacy in the board effectiveness in exercising their control over the management.

2.1.3. Positive Accounting Theory

Positive accounting theory holds that accounting choices available for the management has seen rise of managerial opportunism. This basically is to say that managers may opt for certain accounting policies if such will serve their interests. For instance, the accounting policies under stock valuation gives three valuation techniques or methods, LIFO, weighted average, and FIFO. FIFO tends to understate the value of closing stock and this can see the gross profit rise and eventually the net earnings. The motivation could be either to report profits which allow mangers to get bonuses which are based on the net earnings of the company. Swai and Mbogela (2016) indicates that it could also be motivated by the intent to send a signal to the market that the performance of the firm has improved or has remained relatively stable. However, the repercussions are felt later by shareholder and Iraya et al. (2014) indicates that a strong corporate governance system will be able to curb such by promoting appropriate accounting policies for the company. Managerial ownership would reduce the incentives of management to use accounting policies to gratify their own interests.

2.2. Empirical Literature

Several scholars have ventured in examining the influence of ownership structure on earnings management. Table 1 offers a detailed summary of reviewed empirical literature.

2.3. Summary and Critique of the Literature

The review of theoretical literature highlights three critical theories, agency theory, stakeholder theory and positive accounting theory. Most striking is the agency theory which explains the principal agent relationship which yields an agency problem where the management pursue their own interest at the detriment of shareholders (corporate owners). Ownership structure in form of managerial ownership, institutional ownership and ownership concentration is suggested as potential solution to agency problem which manifests itself partly through earnings management. Most of the reviewed studies indicates that managerial ownership, institutional ownership, and ownership concentration help to dimmish cases of earnings management. Managerial ownership aligns the interests of the management to that of the shareholders. This drives the top management to engage in activities that promotes shareholders value and shun such tendencies as earnings manipulation. Institutional shareholders come expertise, knowledge and experience which is critical in providing quality oversight to the management. High ownership concentration means that top shareholders are keener to protect their interests due to the large stake in the entity and as such will closely monitor corporate activities and management actions.

There are gaps in extant literature as has been reviewed in the above sections. Firstly, there are methodological research gaps. There is no clarity as to whether most of the empirical studies focus on real earnings management or accrual earnings management. Secondly, several studies have not effectively proxied earnings management. Some studies have used earnings quality as an indicator of earnings management while others have adopted the modified jones model which support the computation of discretionary accruals as an

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indicator of accruals earnings management. Earnings quality is quite distinct from earnings management. Studies should focus at examining the two cases of earnings, real earnings and accrual earnings management as listed entities are facing these two forms of earnings management.

Table 1. Summary of empirical literature.

Topic	Author, Year, country	Objectives	Methodology	Findings and Recommendations
The effect of corporate governance practices on earnings management of companies listed at the Nairobi securities exchange	Iraya et al. (2014) Kenya	• To examine the effect of ownership concentration on earnings management • To examine the effect of board independence on earnings management • To examine the effect of board size on earnings management • To examine the effect of CEO duality on earnings management	Quantitative research which collected secondary data from annual reports of listed firms (2010-2012). The study sampled out 49 listed firms in NSE. Descriptive statistics, and linear regression analysis were adopted for analysis	The findings indicated that ownership concentration, board size and board independence have negative effect on earnings management. This means they help in curbing earnings management. CEO duality was however found to have a positive effect on earnings management. In line with ownership structure, the study concluded that the majority shareholders keep to closely monitor day to day activities as they stand to lose massively should the management engage in any form of malpractice.
Accrual-based versus real earnings management; the effect of ownership structure: Evidence from East Africa.	Swai and Mbogela (2016) East Africa	• To examine the effect of ownership concentration on accrual earnings management • To examine the effect of Institutional ownership on accrual earnings management	The study collected data for the period from 2003 to 2013 and adopted regression analysis to analyze data collected. This was on a sample of 44 non-financial firms in East Africa.	The findings indicated significant negative effect of ownership concentration and institutional ownership on earnings management. The study concluded that the majority shareholders are keen to effectively monitor corporate operations to ensure that their interests are well protected. The study however indicated the effectiveness of this control depends on their skills and experience.
Ownership concentration and earnings management practice of Nigerian listed conglomerates	Usman and Yero (2012) Nigeria	• To examine the effect of ownership concentration on earnings management	The study estimated panel OLS collecting data from annual reports of the 30 listed firms in Nigeria for the period from 2006-2010	The findings indicated a negative effect of ownership concentration on earnings management. The study recommends that while high ownership concentration could see the interests of the minority shareholders disregarded, it is pertinent in that the shareholders keep close watch to the management.
Ownership structure and earnings management: Empirical evidence from Vietnam	Nguyen et al. (2021) Vietnam	• To examine the effect of ownership concentration on earnings management • To examine the effect of foreign ownership on earnings management	Multiple regression analysis Data; secondary data from listed firm's annual reports. The study sampled out 489 firms. Discretionary accruals were adopted as a measure of earnings management.	Both managerial and foreign ownership has a negative effect on earnings management. In other words, they help in curbing earnings management. The study recommends firms to consider allotting shares to the top management as this aligns their interests with those of the company. They exercise due care in financial reporting as any misrepresentation would also adversely affect their stake in the entity. Foreign investors also come with diverse skills and

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Topic	Author, Year, country	Objectives	Methodology	Findings and Recommendations
				expertise critical for the growth of an enterprise far beyond fostering accountability and transparency in financial reporting.
Managerial equity holdings and income smoothing incentives	Shu and Thomas (2019) China	• To examine the effect of Managerial equity holdings and income smoothing incentives.	Regression analysis Deductive research approach and secondary data collected from the published annual reports (2009-2018)	The findings indicated that managerial equity holdings help curb income smoothing. The study recommended that firms to consider allotting shares to top management. The share ownership helps align management interests with those of shareholders. The focus is to have the management focus at maximising shareholders' wealth and not delving in earnings management which is at the detriment of the shareholders.
Ownership structure and earnings management: Evidence from Portugal'	Alves (2012) Portugal	• To examine the effect of Managerial ownership on earnings management • To examine the effect of ownership concentration on earnings management	Multiple regression analysis on secondary data collected from the annual reports for the period from 2002-2007. This was on a sample of 34 non-financial listed entities in Portugal.	The findings indicated that discretionary accruals as a proxy for earnings management is negatively related both to managerial ownership and ownership concentration. This means that both managerial ownership and ownership concentration help to curb earnings management. The study recommends that firms consider giving a proportion of ownership of the company to the top management to enhance their commitment towards effective management of shareholders' wealth and to promote financial reporting quality. Coupled with ownership concentration, the cases of earnings management are bound to significantly diminish. The top owners are keen to effectively monitor the firm's operations and financial reporting process and this minimizes chances of management manipulating earnings to attain selfish ends such as bonuses.
Ownership structure and earnings management: evidence from Jordan	Alzoubi (2016) Jordan	To examine the effect of insider managerial ownership, institutional ownership, external blockholder, family ownership and foreign ownership on earnings management	OLS and generalized least squares were adopted for analysis on data collected from the annual reports of 62 firms quoted in Amman stock exchange. Discretional accrual was used a s a proxy of	The findings indicated that insider managerial ownership, institutional ownership, external blockholder, family ownership and foreign ownership diminish cases of earnings management. The study recommends that these distinct forms of ownership are not only critical in curbing earnings management but also in promoting diligence in investments and risk management. The study

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Topic	Author, Year, country	Objectives	Methodology	Findings and Recommendations
			earnings management	recommends that investors should consider firms with institutional investors representation in the board as such deploy their experience and knowledge to protect the interests of all shareholders.
The effect of the ownership concentration on earnings management. Empirical evidence from the Italian context	Grimaldi and Muserra (2017) Italy	• To examine the effect of ownership concentration on earnings management	Multiple regression analysis of secondary data collected for the period 2011 to 2013. This was on a sample of 300 non-financial listed in Italy.	The study findings indicated that ownership concentration has a negative effect on real earnings management. The majority shareholders are keen to effectively monitor corporate operations to ensure that their interests are well protected. However, the study concludes that high level of ownership concentration could see the interests of the minority shareholders disregarded.
The relationship between equity ownership concentration and earnings quality: evidence from Brazil	Sousa and Galdi (2016) Brazil	• To examine influence of ownership concentration on earnings quality of Brazilian firms	Regression analysis Data- secondary data from annual reports for the period from 1994-2014.	The findings indicated an insignificant effect of ownership concentration on earnings management in listed entities in Brazil. This was in tandem with demand paradigm which holds that earnings are more reliable and consistent when the ownership is dispersed.
Corporate governance, firm characteristics, and earnings management in an emerging economy	Waweru and Riro (2013). Kenya	• To examine the effect of Ownership structure, Independence of the Audit Committee and Board Composition) and firm specific characteristics (Firm size, Firm Performance, leverage) on earnings management by Kenyan listed firms.	OLS regression analysis Earnings management- discretionary accruals. Data- secondary data from annual reports on a sample of 37 listed firms in NSE, Kenya.	All the components of corporate governance were found to curb cases of earnings management. For firm specific characteristics only, leverage was found to have a significant effect and specifically positive effect on earnings management. This means firms with high leverage are more likely to manipulate earnings. The study recommends the need for a strong independent board and representation of institutional shareholders in the board to provide quality oversight to the management. The study further recommends a board with diverse skills and experience beyond having high ownership concentration and institutional investors. Such a board is able to put up strong internal controls that seal loopholes that are normally exploited by the management to manipulate earnings.
The impact of corporate governance code on earnings management in listed non-financial firms: Evidence from Kenya	Outa et al. (2017) Kenya	• To examine the effect of corporate governance on earnings management	Regression analysis on data collected for the period from 2005 to 2014; 338-firm annual observations. Corporate governance	The findings indicated corporate governance as indicated by corporate governance Index (CGI) has no significant effect on earnings management. However, the study recommends the need to have an independent board with

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Topic	Author, Year, country	Objectives	Methodology	Findings and Recommendations
			index used as a proxy of corporate governance.	requisite experience and skills to provide quality oversight to the management. Further, the study underscores the need for institutional shareholders to closely monitor corporate operations to quickly spot any incontinences in the financial reporting that could be a pointer to cases of earnings manipulation.
Monitoring earnings management in emerging markets: IFRS adoption and ownership structure.	Hessayri and Saihi (2015) United Arab Emirates, Morocco, South Africa, and the Philippines	• To examine the effect of Ownership concentration on earnings management • To examine the effect of managerial ownership on earnings management • To examine the effect of Institutional ownership on earnings management	Multiple regression analysis Secondary data-financial data from the annual reports of the sampled listed firms in UAE, Morocco, South Africa, and Philippines	The findings indicated that ownership concentration, managerial ownership and institutional ownership are critical in curbing cases of earnings management. The study recommended listed firms to consider institutional investors with immense knowledge and experience in enterprise operations and financial reporting. There representation in the board is critical as they are able to closely monitor the corporate operations.
Earnings management behavior in Malaysia: the role of ownership structure and external auditing	Nor, Mahyuddin, Hashim, and Nahar (2020) Malaysia.	• To examine the effect of institutional ownership on earnings management • To examine the effect of family ownership on earnings management • To examine the effect of family ownership on earnings management • To examine the effect of external audit on earnings management	The study sampled 227 listed firms in Malaysia and collected data for the period from 2001 to 2016. Regression analysis was adopted to examine the effect of each of the study predictor variables on earnings management.	The findings indicated that family ownership, managerial and institutional ownership help in mitigating earnings management. However, external audit function was found to have no significant effect in curtailing earnings management. The study recommended that corporations and shareholders should consider managerial ownership as this could reduce the control and monitoring costs as the management interests stands aligned to shareholders' interests. However, the study recommended that institutional shareholders are still needed even in case of managerial ownership as the top management may still be motivated to manipulate earnings for short term gains such as immediate bonuses upon hitting set profit targets. With institutional investors and a strong and independent board, the firm will put up strong controls such as that an external audit may not even considerably mitigate earnings manipulation but just come to run audit tests to provide an assurance to shareholders.

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Topic	Author, Year, country	Objectives	Methodology	Findings and Recommendations
Ownership structure and earnings management.	Ekpulu and Omoye (2018) Nigeria	• To examine the effect of managerial ownership on earnings management • To examine the effect of foreign ownership on earnings management • To examine the effect of institutional ownership on earnings management	The study sampled out 75 listed firms and collected data from annual reports for the period from 2009 to 2014. Regression analysis, person correlation analysis and descriptive statistics were adopted for analysis.	The study findings indicated that managerial ownership significantly curbs earnings management. However, institutional and foreign ownership were found to have an insignificant effect on earnings management. The study concluded that with managerial ownership, the interests of the shareholders are protected as the management is also keen to safeguard their stake in the entity. The study indicated that even with institutional ownership, the management can still collude with accounting officers to bypass internal controls in the company. The study thus underscored the value of managerial ownership as one of the best solutions of agency problem and in mitigating earnings management.
Ownership Structure and Earnings Management	Alexander (2019) Indonesia	• To examine the effect of ownership concentration on earnings management • To examine the effect of foreign ownership on earnings management • To examine the effect of institutional ownership on earnings management •	The study focused on listed manufacturing firms in IDX and collected data for the period from 2014-2016. Multiple regression analysis in E views was adopted for analysis.	The findings indicated that institutional ownership and foreign ownership significantly mitigates earnings management while ownership concentration was found to have no significant effect in curbing earnings management. The study recommended foreign and institutional investors citing their skills and expertise critical in providing quality oversight to the management. This is through their representation in the board. The study however, underscored the need to have strong internal controls beyond just having institutional and foreign investors. The foreign and institutional investors should work towards ensuring that the firm has robust controls in place. But this can be overridden by collusion in the management and other company officers. This therefore calls for strong board to offer quality oversight.

3. Research Methodology

3.1. Introduction

This chapter highlighted the research design, population and sample size, research variables, data collection and analysis techniques that would effectively examine the effect of ownership structure on earnings management.

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3.2. Research Design

This basically is the overall strategy adopted to integrate all research parts in a logical manner to effectively address the research aim and objectives. This research adopted a quantitative research design given that it entailed analysis of numerical data/quantitative data that was subjected to statistical analysis.

3.3. Target Population

The target population was 8 listed manufacturing firms in Nairobi securities exchange as at 2019. Panel data from the annual reports of the 8 listed manufacturing firms in NSE for a period of 10 years (2011-2019).

Table 2. Research variables.

Variables	Name	Symbol	Measure
Dependent variables			
Earnings Management	Discretionary Accruals (DA)	DA	Non obligatory expenses that are not realised but have been recorded in the financial reports
Independent variable			
Ownership Structure	institutional ownership	IO	Percentage of shares held by institutional shareholders to total company shareholding
	Managerial ownership	MO	percentage of shares held by top management to total company shareholding
	Ownership concentration	OWNC	Top 10 shareholder shareholding ratio
Control variables			
	Firm size	Fsize	Log forms of total assets of the firm.
	Growth	GRW	Percentage increase in annual sales

The proxy for earnings management was discretionary accruals which was derived from the modified jones model expressed as:

$$NDA_t = \alpha_1 \frac{1}{A_{t-1}} + \alpha_2 \frac{(\Delta REV_t - \Delta REC_t)}{A_{t-1}} + \alpha_3 \frac{PPE_t}{A_{t-1}} + \varepsilon_t$$

ΔREC_t is the difference between the operating income of the previous year and the receivable items of the current year. ε_t is the residual sequence of the regression model, that is, the company's discretionary accruals (DA_t).

Discretionary accruals = Total accruals - non-discretionary accruals.

The jones model was adopted to indicate the total accruals as follows;

$$TA_t = \Delta CA_t - \Delta CL_t - \Delta Cash_t + \Delta STD_t - Dep_t$$

Where ΔCA is the change in current assets, ΔCL is the change in current liabilities, $\Delta Cash$ is the change in cash and cash equivalent, ΔSTD is the change in current maturities of long-term debt and Dep is the depreciation and amortization expense. Changes in short-term debt are excluded from accruals because they relate to financing transactions as opposed to operating activities.

4. Research Findings and Conclusion

4.1. Descriptive Statistics

Table 3 summarizes the descriptive statistics for the dependent variable, earnings management proxied by discretionary accruals.

Table 3. Descriptive statistics- discretionary accruals.

Year	Mean	Std. Deviation	Minimum	Maximum
2011	-0.005	0.112	-0.991	0.061
2012	-0.002	0.130	-0.970	0.068
2013	0.007	0.062	-0.490	0.192
2014	0.002	0.048	-0.380	0.252
2015	0.003	0.046	-0.370	0.091
2016	0.007	0.043	-0.321	0.154
2017	0.003	0.142	-0.406	0.136
2018	0.006	0.330	-0.342	0.204
2029	0.008	0.023	-0.257	0.141
Total	0.003	0.104	-0.503	0.144

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The mean discretionary accruals were found to be very low which indicated that the level of earnings management is insignificantly lower in the listed manufacturing firms in Kenya.

Table 4 shows the descriptive statistics for independent variables.

Table 4. Descriptive statistics; ownership structure.

Year	Mean/std. Deviation	IO (%)	OWNC (%)	MO (%)
2011	Mean	9.279	36.849	0.513
	Std. Deviation	1.965	5.898	2.671
2012	Mean	9.249	37.038	0.733
	Std. Deviation	1.985	5.346	3.575
2013	Mean	9.241	37.14	0.82
	Std. Deviation	1.924	5.085	3.506
2014	Mean	9.125	36.986	1.109
	Std. Deviation	1.819	5.812	4.257
2015	Mean	8.962	37.405	1.787
	Std. Deviation	1.796	5.844	5.958
2016	Mean	9.04	37.027	1.608
	Std. Deviation	1.638	5.533	5.775
2017	Mean	9.062	37.272	1.7
	Std. Deviation	1.729	5.393	5.783
2018	Mean	9.048	36.95	1.691
	Std. Deviation	1.76	5.786	5.379
2019	Mean	8.933	37.622	1.639
	Std. Deviation	1.692	6.055	5.195
Total	Mean	9.104	37.143	1.289
	Std. Deviation	1.813	5.638	4.843

The mean institutional ownership in listed manufacturing firms was found to be 9.104%. This was a standard deviation of 1.813 which means that there is a statistically significant variation in the institutional ownership of listed manufacturing firms. Focusing on the trend, the institutional ownership slightly declined from 9.279% in 2011 to 8.933% in 2020. This could mean that institutional shareholders are possibly considering other sectors with potentially higher returns. However, extant studies notably (Nor et al., 2020) indicates that firms across all sectors continue to appreciate the value of institutional ownership. The institutional owners bring on board experience and knowledge which enhances the quality of oversight.

The average managerial ownership in listed manufacturing firms was found to be 1.289%. This was a standard deviation of 4.843 which means that there is a statistically significant variation in the managerial ownership of listed manufacturing firms. Focusing on the trend, the managerial ownership rose from 0.513% in 2011 to 1.639% in 2020. However, it is still relatively low despite that managerial ownership has been cited by Waweru and Riro (2013) as a disincentive to earnings management. This is given that it aligns the interests of shareholders with those of management as the latter also has a stake in the entity.

This study findings further established the mean ownership concentration to be 37.143%. This was a standard deviation of 5.638 which means that there is a statistically significant variation in the ownership concentration across listed manufacturing firms. Focusing on the trend, the ownership concentration rose from 36.849% in 2011 to 37.622% in 2020. However, it is still relatively low despite that managerial ownership has been cited as a disincentive to earnings management. Alves (2012) indicated that the level of managerial ownership could still be low in many firms given other approaches of incentivizing the top management such as bonuses and better pay.

Table 5 presents the correlation matrix for all the variables in the study.

Table 5. Correlation matrix.

Variables	DA	MO	IO	OC	FG	FS
DA	1.000					
MO	0.659	1.000				
IO	-0.642	-0.943	1.000			
OWNC	0.502	0.565	-0.704	1.000		
GRW	-0.401	-0.160	0.423	-0.620	1.000	
Fsize	0.788	0.922	-0.881	0.549	-0.361	1.000

4.2. Correlation Analysis

Firm size was found to have a significant negative correlation with ownership concentration. This is given a correlation coefficient of -0.881. Institutional ownership was found to have a significant negative correlation with managerial ownership. This could possibly mean that a rise in institutional ownership is bound to see a decline in managerial ownership. This is despite that it is expected that institutional investors are bound to

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promote managerial incentives that align the management interests to their interests. These findings dissent with those of Alzoubi (2016) whose findings indicated a positive correlation between institutional ownership and managerial ownership. Alzoubi (2016) indicated that institutional owners opt for incentivized managers through such approaches as stock ownership to ensure that they remain focused on the core goal of maximizing shareholders' wealth. Only firm size, though a control variable was found to have a significant positive correlation with discretionary accruals.

4.3. Model Specification Tests

4.3.1. Multicollinearity

The study adopted variance inflation factor to test for multicollinearity. Multicollinearity is bound to lead to biased results. Table 6 presents the variance inflation factors (VIF) for all predictor variables.

Table 6. Multicollinearity test- variance inflation factor.

Variable	VIF	I/VIF
MO	4.203	0.238
OWNC	2.319	0.431
IO	3.081	0.325
FSIZE	1.082	0.924
GRW	4.048	0.247
Mean VIF	2.947	

The VIF for all the variables were found to be below 5.0 depicting low level of multicollinearity.

4.3.2. Test for Heteroscedasticity

The CLRM assumes equal variance of errors, homoscedasticity. Conversely heteroscedasticity means that there is unequal variance of errors. Deploying Breusch pagan test, the findings indicated a P value of 0.0791 depicting absence of heteroscedasticity. This is given that the P value was higher than 5% significance level. Table 7 presents results ofc the Breusch test of heteroscedasticity.

Table 7. Breusch pagan test of heteroscedasticity.

Statistic	Value
Chi2(2)	5.07
Prob>chi2	0.0791

4.3. Regression Analysis

The study deployed the random effects model and the results were as summarized in Table 8.

Table 8. Random effects regression.

Random effects GLS regression						**Number of Obs.**	**76**
Group Variable: id						Number of groups	8
R-sq:	Within	0.0392				Obs per group: Min	6
Between		0.0023				Avg	9.75
Overall		0.0089				Max	10
						Wald Chi2(3)	1.78
Corr (U_i, x)		0 (assumed)				Prob>chi2	0.8052
DA	**Coef.**	**Std err**	**Z**	**p>z**	**[95% conf.**		
MO	-0.00174	0.0144	0.12	0.904	-0.0301		
IO	0.0117	0.0392	0.3	0.766	-0.0652		
OWNC	0.0036	0.0041	0.86	0.388	-0.0045		
GRW	-0.00004	0.0006	0.07	0.941	-0.0011		
Fsize	0.0043	0.0027	1.58	0.115	-0.0010		

(The variables symbols are as indicated in Table 2- research variables (DA- discretionary accruals, MO- managerial ownership, IO- institutional ownership, OWNC- ownership concentration, GRW- firm growth, Fsize- Firm size).

The study findings indicated that managerial ownership has no significant effect on earnings management as proxied by discretionary accruals. This was given a P value of 0.904 higher than the 5% significance level. The findings dissented with those of Nor et al. (2020); Hessayri and Saihi (2015) and Alzoubi (2016) which established that insider managerial significantly diminish cases of earnings management. Alzoubi (2016) indicated that managerial ownership is not only critical in curbing earnings management but also in promoting

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diligence in investments and risk management. However, it should be noted that there are other incentives such as bonuses and better compensation which could dissuade managers from engaging in earnings manipulation.

The study findings indicated that institutional ownership has no significant effect on earnings management as proxied by discretionary accruals. This was given a P value of 0.766 higher than the 5% significance level. It should be noted that most important is the skills and capability of the majority shareholders to provide control and oversight over the management. Lack of requisite capacity to exercise control could still see instances of earnings management/manipulation. The findings agreed with those of Sousa and Galdi (2016) which indicated an insignificant effect of ownership concentration on earnings management in listed entities in Brazil. However, the findings dissented with those of Usman and Yero (2012) and Swai and Mbogela (2016) which established a negative effect of ownership concentration on earnings management. These studies held that majority shareholders keep to closely monitor day to day activities as they stand to lose massively should the management engage in any form of malpractice. However, this depends on their capacity to exercise control and oversight.

The study findings indicated that ownership concentration has no significant effect on earnings management as proxied by discretionary accruals. This was given a P value of 0.388 higher than the 5% significance level. The findings however dissented with most previous studies such as Swai and Mbogela (2016); Alzoubi (2016) and Hessayri and Saihi (2015) which established a significant negative effect of institutional ownership on earnings management. This is holding that institutional investors come with experience critical in offering quality oversight over the management of the firm. However, the findings of this study indicated low level of discretionary accruals which means that this may not be a significant issue for the listed manufacturing firms.

The two control variables (firm growth and size) were found to also not have any significant effect on earnings management.

5. Conclusion and Recommendations

5.1. Conclusion

The main aim of this study was to examine the effect of ownership structure on earnings management. A review of literature indicated that ownership structure as a component of corporate governance is critical in curbing instances of earnings management in listed entities across the globe. The main components of ownership structure studied included ownership concentration, managerial ownership, and institutional ownership. The study findings established that managerial ownership, institutional ownership and ownership concentration have an insignificant effect on earnings management. Theoretically managerial ownership is expected to align the interests of the management to those of the shareholders. The management work towards that which will be beneficial to all shareholders as any deviations could also adversely affect their wealth. This is especially that previous cases of earnings management that have been unearthed have adversely affected shareholders' wealth. However, the findings established that managerial ownership has no effect on earnings management.

While institutional ownership has been cited to be critical in curbing cases of earnings management due to the experience and knowledge of institutional investors, the study established institutional ownership has no significant effect on earnings management. It has been held that the institutional investors are able to promote robust internal controls that help to seal loopholes that could be exploited by the management to manipulate earnings. In summation, ownership structure was found to have no significant effect on earnings management.

5.2. Recommendations

While all the components of ownership structure were found to have no significant effect on earnings management, their importance cannot be overlooked. However, they need to complemented by other core components of corporate governance notably board independence and avoiding instances of CEO duality. Most pertinent is to ensure that proper internal controls are put in place to seal loopholes that could be exploited by the management to manipulate earnings.

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