

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,**

**KUMASI**

**EFFECT OF OWNERSHIP STRUCTURE ON EARNINGS**

**MANAGEMENT OF FIRMS IN GHANA**

**BY**

**BERNARD AMELORKU**

**A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING  
AND FINANCE, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, KUMASI**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
AWARD OF A MASTER OF SCIENCE DEGREE IN ACCOUNTING AND  
FINANCE**

**NOVEMBER, 2023**

**DECLARATION**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any degree or diploma at Kwame Nkrumah University of Science and Technology, Kumasi, or any other educational institution, except where due acknowledgement is made in the thesis.

Bernard Amelorku  .....  
(PG934221) Signature Date

Certified by:  
Dr. Ellis Kofi Akwaa-Sekyi .....  
Supervisor Signature Date

Certified by:  
Professor K.O Appiah .....  
Head of Department Signature Date

## DEDICATION

I dedicate this research work to my dear wife, my parents, Mr. Alfred Kemavor, Mr. Christian Winkle Ofori and Alhaji Shamrock Abdulai Gafaru for their immense support throughout the entire research period.

# KNUST



## ACKNOWLEDGMENT

My primary debt of gratitude goes to Almighty God for his grace, mercy and protection throughout my studies and this period.

I am greatly indebted to my wife, Henrietta Kemavor, Mr. Alfred Kemavor, my parents and siblings for the financial and moral support rendered to me throughout my academic career. I owe my academic success and this entire research to you all.

I express my sincere gratitude to my supervisor, Dr Ellis Kofi Akwaa-Sekyi (PhD) who made hard things simpler and easier for me. He is a true educator whose continuous effort and unfailing energy in guiding and organizing the entire process worked towards the writing of this dissertation.

My heartfelt gratitude to the District Coordinating Director of Denkyembour District Assembly, Alhaji Shamrock Abdulai Gafaru, the District Internal Auditor, Mr Christian Winkle Ofori and the entire staff.

And to scholars, authors and lecturers whose work and knowledge I consulted and used during the entire research process, I am most grateful.

I thank you all and may the good Lord reward you richly.

## ABSTRACT

This study explores the relationship between ownership structure and earnings management in the context of listed companies on the Ghana Stock Exchange. The study employs both quantitative and explanatory designs. Using the purposive sampling, the study selects nineteen (19) non-financial firms listed on the Ghana stock exchange from 2009 -2021. The study analyses the data using panel regression. The study finds that institutional ownership has a significant negative effect on earnings management. Also, the study finds that managerial ownership has a significant positive effect on earnings management. Again, the study also finds that state ownership has a significant positive effect on earnings management. The study recommends that companies with low levels of institutional ownership review their governance practices and ensure that there are adequate checks in place to prevent earnings management. Companies can implement best practices in corporate governance by having an independent board of directors, implementing effective internal controls, and having a clear process for communicating with shareholders.

## TABLE OF CONTENT

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGMENT .....</b>	<b>iv</b>
<b>ABSTRACT .....</b>	<b>v</b>
<b>TABLE OF CONTENT.....</b>	<b>vi</b>
<b>LIST OF TABLES .....</b>	<b>ix</b>
<b>LIST OF FIGURES .....</b>	<b>x</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study .....	1
1.2 Research Problem .....	3
1.3 Objectives of the study.....	4
1.4 Research Question .....	5
1.5 Significance of The Study.....	5
1.6 Scope of the Study .....	6
1.7 Limitation of Study .....	6
1.8 Summary of Methodology .....	7
1.9 Organization of the Study .....	7
<b>CHAPTER TWO .....</b>	<b>8</b>
<b>LITERATURE REVIEW .....</b>	<b>8</b>
2.1 Introduction.....	8
2.2 Conceptual Literature Review .....	8
2.2.1 Earnings Management .....	8
2.2.2 Earnings Management Classification .....	10
2.2.2.1 Accrual-based Earnings Management .....	10
2.2.2.2 Real Earnings Management .....	13
2.2.3 Management Motivation for Earnings Management .....	15
2.2.4 Ownership Structure .....	17
2.2.4.1 Institutional Ownership.....	18
2.2.4.2 Managerial Ownership.....	18
2.2.4.3 State Ownership .....	19
2.3 Theoretical Literature Review .....	20

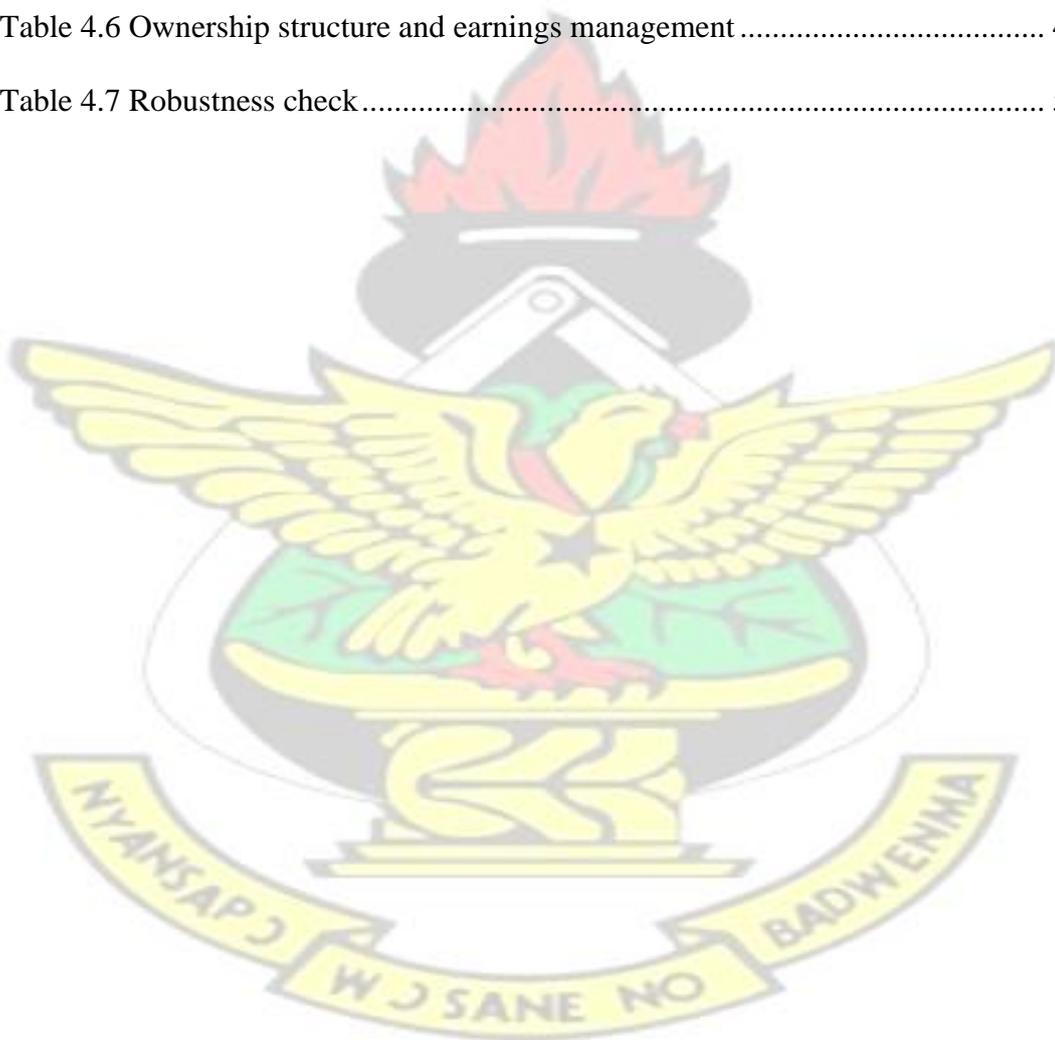
2.3.1 Agency Theory.....	20
2.3.2 Bonus Maximization Theory .....	21
2.3.3 Signalling Theory.....	22
2.4 Empirical Literature Review .....	24
2.5 Conceptual Framework.....	29
2.5.1 Institutional Ownership and Earnings Management.....	30
2.5.2 Managerial Ownership and Earnings Management.....	30
2.5.3 State Ownership and Earnings Management .....	31
<b>CHAPTER THREE.....</b>	<b>32</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>32</b>
<b>3.1 Introduction.....</b>	<b>32</b>
3.2 Research Philosophy .....	32
3.3 Research Design.....	33
<b>3.4 Population.....</b>	<b>33</b>
3.5 Sample Size and Sampling Technique.....	34
<b>3.6 Data Collection Methods .....</b>	<b>34</b>
<b>3.7 Data Analysis.....</b>	<b>34</b>
3.7.1 Multicollinearity .....	37
3.7.2 Autocorrelation .....	37
3.7.3 Heteroscedasticity .....	37
3.8 Data Analysis Model.....	38
3.9 Measurement of Variables .....	39
<b>CHAPTER FOUR.....</b>	<b>42</b>
<b>RESULT AND DISCUSSION .....</b>	<b>42</b>
4.1 Introduction.....	42
4.2 Descriptive Statistics.....	42
4.3 Multicollinearity Test.....	43
4.4 Regression Model .....	45
4.5 Diagnostic Test .....	45
4.6 Ownership Structure and Earnings Management .....	46
4.6.1 Institutional Ownership and Earnings Management.....	46
4.6.2 Managerial Ownership and Earnings Management.....	48
4.6.3 State Ownership and Earnings Management .....	49
4.7 Robustness Check .....	50

<b>CHAPTER FIVE .....</b>	<b>51</b>
<b>SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS</b>	<b>51</b>
5.1 Introduction.....	51
5.2 Summary of Findings.....	51
5.3 Conclusion .....	52
5.4 Recommendation .....	52
5.5 Recommendation for Further Studies .....	53
<b>REFERENCE.....</b>	<b>54</b>
<b>APPENDIX.....</b>	<b>61</b>



## LIST OF TABLES

Table 3.1: Variables, Measurement, Signs and Supporting Studies .....	40
Table 4.1 Descriptive statistics .....	42
Table 4.2 Pearson correlation .....	44
Table 4.3 Hausman Test .....	45
Table 4.4 Heteroskedasticity Test.....	45
Table 4.5 Serial Correlation Test.....	46
Table 4.6 Ownership structure and earnings management .....	46
Table 4.7 Robustness check.....	50



## LIST OF FIGURES

Figure 2.1 Conceptual framework ..... 29

# KNUST



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

When shareholders' and management's objectives do not match in a world of imperfect information and expensive monitoring, management may make choices that are not in the firm's best interests. There may be a mismatch between managers' aims and those of their shareholders, enabling managers to make such judgements. It is anticipated that managers would handle profits opportunistically so as to maximise the profits' usefulness at the cost of other stakeholders (Nalarreason, Sutrisno and Mardiati, 2019).

Berle and Gardiner (1968) originally identified the agency dilemma that emerges between shareholders and management in big organisations. When the principal and the agent have uneven access to the same information, this problem occurs. If shareholders have access to substantial knowledge about the company's investment options, they may be able to draught contracts that limit management's capacity to exercise absolute discretion. Nevertheless, managers' financial incentives to explore ideas that benefit themselves at the cost of shareholders make this a rare occurrence (Fama, 1980; Jensen and Meckling, 1979).

Using accounting procedures to create financial statements and records that exaggerate the firm's activities and financial status is known as earnings management, according to Habib, Uddin, and Islam (2013). Firms employ various earnings management strategies, which include 'Big Bath', where firms manipulate a company's income statement to make poor results look even worse

so that they make future results look better. Also, another technique is 'Cookie jar reserves', which occurs when firm expenses are based on estimates (El Diri, Lambrinoudakis, and Alhadab, 2020). Earnings management is detected using discretionary accruals. This approach to earnings management detection was set by Jones (1991) as well as Healy (1985). Non-discretionary Accruals (NDA) are assumed to be straightforward to calculate, and any divergence from NDA is seen as Discretionary Accruals (DA), a sign that profits are being managed.

Ownership structure refers to the types and percentages of ownership interests in a company or organisation. It can include the percentage of shares held by individual shareholders, institutional investors, and any controlling stakeholders, such as the founders or a parent company. A clear relationship between ownership structure and earnings management is established in literature (Al-Duais, Malek, Abdul Hamid, and Almasawa, 2022; Wati and Tamaris Gultom, 2022).

The efficiency of a company's control measures is strongly dependent on its ownership structure. Earnings management is controlled by a well-designed ownership structure, which is a corporate governance strategy that may lower agency costs owing to agency issues (Jensen and Meckling, 1976). The two potential reasons are as follows: The first is that managers' interests are linked with those of the company's owners when they hold a considerable number of shares. As a result, less money will be spent on agency issues. The second posits that shareholders from outside the business would exert significant influence on its management and compel it to behave in the owners' best interests if they own a sufficient proportion of the firm's shares (Al-Fayoumi, Abuzayed, and Alexander,

2010; Widagdo, Arifah, and Goestjahjanti, 2022). However, Tran and Dang (2021) argue that a company with a high level of insider ownership (such as founders or executives) may be more likely to engage in earnings management to meet the expectations of these stakeholders. Also, the level of ownership concentration can affect the level of oversight and monitoring of earnings management (Almari, Weshah, Saleh, Aldboush, and Ali, 2021). A company with a dispersed ownership structure (many shareholders with small stakes) may have less oversight and monitoring, which can increase the likelihood of earnings management. Based on the above, this study seeks to examine the effect of ownership structure on earnings management.

## **1.2 Research Problem**

Earnings management, which refers to the manipulation of financial reporting to meet or exceed earnings expectations, has been the subject of much debate in the accounting and finance literature and ownership structure is believed to play a crucial role in determining the level of earnings management (Widagdo, Rahmawati, Murni, Wulandari and Agustiningsih, 2021). Theoretically, the agency theory assumes a negative relationship between ownership structure and earnings management since earnings management practices benefit managers and not shareholders. However, the empirical studies explain that the relationship can be negative or positive depending on the pressure exerted by the owners of the firm (Ningrum, 2021; Idris, Siam, Qabajeh, and Eitah, 2022; Wilson, Wang, Wu and Lau, 2022).

Wilson, Wang Wu, and Lau (2022) explain that institutional ownership leads to pressure on management to meet or exceed market expectations, which creates

incentives to use creative accounting techniques to inflate earnings or hide losses. On the other hand, managerial ownership aligns management's incentives with those of other shareholders, reducing the temptation to use creative accounting (Idris, Siam, Qabajeh and Eitah, 2022). State ownership also leads to pressure from the government to present a positive financial picture of the company, which forces managers to engage in earnings management practices (Ruggiero, Sorrentino and Mussari, 2022).

These arguments infer that ownership structure constrains or facilitates the earnings management practices of firms. However, empirical studies in Ghana still need to address it. Studies on earnings management in Ghana consider audit committee and board composition effects on earnings management (Agyei-Mensah and Yeboah, 2019; Agyekum et al., 2014). Also, the Ghanaian study on ownership structure examines ownership structure and firm performance (Abor and Biekpe, 2007; Bokpin and Arko, 2009; Sarpong-Danquah, Oko-Bensa-Agyekum, and Opoku, 2022), ownership structure and audit fees (Musah, Okyere, and Boakye, 2021) and ownership structure and capital structure (Ahmed, 2019). Hence this study fills the gap by examining the ownership structure effect on earnings management in Ghana. Also, this study computes two earnings management methods using the modified Jones model and the Kotari model, which is novel in the Ghanaian context.

### **1.3 Objectives of the study**

The main research objective of this study is to explore the relationship between ownership structure and earnings management in the context of listed companies

on the Ghana Stock Exchange. The specific objectives of this study are:

1. To examine the effect of institutional ownership on earnings management
2. To examine the effect of managerial ownership on earnings management
3. To examine the effect of state ownership on earnings management

#### **1.4 Research Question**

1. What is the effect of institutional ownership on earnings management?
2. What is the effect of managerial ownership on earnings management?
3. What is the effect of state ownership on earnings management?

#### **1.5 Significance of The Study**

Research on the relationship between ownership structure and earnings management can benefit stakeholders by providing insights into how different ownership structures may impact a firm's financial reporting and decision-making. This helps stakeholders make more informed decisions about investing in or working with the firm.

For investors, understanding the link between ownership structure and earnings management provides valuable information about a company's governance and management practices. For example, if the research finds that firms with a high concentration of insider ownership are more likely to engage in earnings management practices, investors use this information to make more informed decisions about investing in those firms.

For analysts and researchers, understanding the link between ownership structure

and earnings management can provide valuable insights into the factors that influence financial reporting and decision-making. This helps analysts and researchers develop more accurate financial models and predictions and can also inform policy decisions relating to corporate governance and financial reporting.

For management, understanding the link between ownership structure and earnings management provides valuable insights into how different stakeholders perceive their decisions and practices and how they can improve their governance and management practices.

### **1.6 Scope of the Study**

The study focuses on Ghana Stock Exchange-listed companies and selects institutions for analysis based on the ease of obtaining crucial information on ownership structures and performance from the Ghana stock market. Additionally, the study selects institutions whose financial documents are readily available. This study examines the ownership structure and earnings management of firms in Ghana, taking into account institutional ownership, managerial ownership, and state ownership. To estimate earnings management, the study employs the modified Jones model and Kotari model.

### **1.7 Limitation of Study**

This non-probability sampling method leads to a limitation of the generalizability of the study's results. Also, the data for the study is panel data which has issues of violating homoskedasticity and autocorrelation assumptions. However, the study

addresses this using the robust standard errors to estimate the regression and perform robustness checks.

### **1.8 Summary of Methodology**

The study's objective is achieved by adopting a panel data analysis approach using data from firms listed on Ghana Stock Exchange (GSE). This study employs descriptive research design to explore the relationship between the explanatory and experimental variables. The data covers a period of 13 years, from 2009 to 2021. The study estimates earnings management through discretionary accruals. This study uses secondary data in that it only uses data on the number of shareholdings and financial statements contained in the annual report.

### **1.9 Organization of the Study**

The study comprises five chapters; the first chapter presents the background of the research, the problem that has necessitated the research, the objectives the research expects to achieve, questions that the study will answer, the scope, significance, limitations, and a summarized methodology. The second chapter presents the literature review, thus, the conceptual, theoretical, and empirical reviews that underpin the study. Chapter three discusses the methodology employed in achieving the study's objectives, while the fourth chapter presents the data obtained and its interpretation and analysis. The summary, conclusion and recommendations related to the study are included in the final chapter.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

In this chapter, the study reviews pertinent literature related to our research objectives. Specifically, the study also presents a review of ownership structure and earnings management. Additionally, the study reviews relevant theories and previous studies.

#### 2.2 Conceptual Literature Review

##### 2.2.1 Earnings Management

Earnings management interferes with preparing external financial reporting, intending to obtain personal benefits (Almadara, 2017). According to Gerged, Albitar, and AlHaddad (2021), earnings management is when managers manipulate financial reporting to meet their objectives. Since earnings management is a kind of financial report manipulation that focuses on communication between managers and external stakeholders of an organisation, it diminishes the credibility of financial reports when they are used for decision-making.

Kliestik, Belas, Valaskova, Nica, and Durana (2021) define earnings management as the manipulation of financial reporting for strategic or tactical goals. Present and future investors utilise financial statements to make long- and short-term investment choices. Investors evaluate the growth of their net worth using earnings data. Industry professionals often ask managers to modify results to align more closely with their estimates, and managers are aware of this. When firms

compensate managers for their performance, they are more prone to engage in dubious accounting practices, as noted by Zgarni (2016).

According to a study by Parveen, Malik, Mahmood, and Ali (2016), earnings management happens when a corporation intentionally deviates from GAAP to generate a more favourable financial result. Either a lower current profit to reduce tax payments, or a bigger profit to increase the management incentive, are both feasible results. Internal controls are the methods a corporation employs to guarantee proper financial reporting. This is often done to prevent shareholders and management from having competing objectives.

Elnahass, Salama, and Yusuf (2022) describe earnings management as a management skill that determines profits by determining the ideal decision to attain the desired profit level. In order to maximise profits, managers may engage in opportunistic acts, such as engineering financial statements, without considering the effect on shareholders. In order to influence results, management may sometimes exploit accounting rules' weaknesses.

White, grey, and black are the three forms of earnings management, according to Fogel-Yaari and Ronen (2020). White shows earnings management and enhances financial statement quality, while black exposes the employment of strategies to falsify or lower the transparency of financial statements. Grey refers to modifying accounting data within or beyond the authorised limitations for the sake of opportunity or (supposed) economic efficiency. According to their concept, profit maximisation is accomplished by a succession of short-term management actions

that disregard the status quo. Regarding its effect on profits, earnings management may be advantageous, detrimental, or irrelevant. A positive signal indicates long-term value, a negative signal indicates short-term value, and both long-term and neutral values will disclose the genuine performance in the near future. Thus, this notion encompasses not just earnings management but also other managerial actions that result in the appearance of profits that vary from the managers' perception of the underlying profits. This concept also indicates that the quality of a company's financial statements is undermined by legal or unlawful profit management that misleads by offering beneficial information.

### **2.2.2 Earnings Management Classification**

Manipulation of income in an organization can be done in several ways, which are divided into categories or classified into two types: savings management using accrual accounting and actual manipulation of real earnings management in the company.

#### **2.2.2.1 Accrual-based Earnings Management**

Accrual-based earnings management is a technique for managing profits by altering accounting techniques. In order to deceive stakeholders, the corporation performs a series of transactional evaluations in order to show that it has reached its benchmark and is functioning well (Enomoto, Kimura, and Yamaguchi, 2015; Kliestik, Valaskova, Nica, Kovacova and Lazaroiu, 2020). When it comes to preparing financial statements, managers frequently have to depend on their judgement since local accounting law and IFRS may give a variety of accounting systems, each with a distinct value choice.

Stakeholders face additional expenditures due to the wide range of accounting options available to management (Mayapada, Afdhal and Syafitri, 2020). There are several ways to evaluate depreciation, including straight-line, reducing balance, year-to-year digits, or units of output. Managers pick a way that affects the desired direction of profits without affecting the cash flow statement. While the option of flexibility is accessible for a short period, it results in a bad surprise for stakeholders when management returns to the initial value and exposes the financial truth (Kliestik, Valaskova, Nica, Kovacova and Lazaroiu, 2020).

As Dakhllalh, Rashid, Abdullah, Qawqzeh and Dakhllalh (2020) explain, accrual-based income management deceive stakeholders in a few fundamental ways. These include using enormous cookie jar and big bath; in years when poor performance is unavoidable, managers may have a substantial effect. One technique to accomplish future earnings goals and make future results seem better is to manipulate the outcomes downward so, under-reporting profits (making results look even worse). On the other hand, cookie jar reserves facilitate earnings objectives by adjusting outcomes both upwards and downwards. Cookie jar reserves raise profits by reversing accruals and reserves in a year of poor financial performance, as long as the earnings objective is within realistic ranges. As an alternative, the cookie jar reserve diminishes profits by incurring significant costs and overstating reserves in a year of great financial performance (Mussalo, 2015).

However, existing literature (Mayapada, Afdhal and Syafitri, 2020) suggests that current and past performance are a precondition in order for managers to manipulate the results upward through accrual-based earnings control. In the

short-term, accrual-based earnings management is more expensive than real earnings management because of the greater likelihood of being inspected and identified by external players. Since the long-term value is recovered, accrual-based earnings management is less expensive for both the owners and managers, according to Moradi, Salehi, and Zamanirad (2015). In addition, they argue that compensation plans encourage managers to use accrual-based accounting systems since the process does not have an impact on cash flow or future operational results.

As a result, accrual-based earnings management allows managers to influence the number of incentives in the form of discretionary accruals following the fiscal year but before the earnings release. As a result, accrual-based earnings management offers an alternative for managers to manipulate profits without affecting long-term operational results. Owners and managers have previously assumed that compensation plans result in a mutually beneficial partnership with a decreased agency cost for monitoring managers (Jamaludin, Sanusi and Kamaluddin, 2015).

Managers may have short-sight and be driven by a need for ongoing self-improvement if they have incentives to manipulate reported profitability to seem reasonable in upper management's eyes (Moradi et al., 2015). The process of accrual-based earnings management can only do so much due to restrictions placed on it by IFRS and national regulations. Eventually, manipulating income using accrual-based earnings management becomes ineffective since modifications would not provide the intended earnings. Management has no

choice but to manipulate profits via real earnings management, which has an influence on future cash flows and leads to long-term implications.

#### **2.2.2.2 Real Earnings Management**

Recently, researchers have found evidence for the presence of real earnings management (Cohen and Zarowin, 2010; Haga, Höglund and Sundvik, 2018) despite the prominence of accrual-based earnings management in the past. Research and development expenditures are reduced towards the end of the fiscal year in an effort to save money and accelerate short-term earnings, according to a study by Haga, Höglund, and Sundvik (2018). Research conducted by Barber and Hollie (2020) displays consistent evidence of reductions in discretionary expenses to meet or beat forecasted earnings. A study by Ali, Razzaque, and Ahmed (2018) reveals that stakeholders are misled to believe normal business operations meet performance targets while the reported earnings are achieved by real activities manipulation.

Ali et al. (2018) detect the three basic actual actions that managers use to alter profits. First, managers try to boost sales by giving big discounts or extended credit conditions to their customers (cash flow from operations). Overproducing items results in a greater overhead cost for inventories but a cheaper cost of goods sold since managers do not follow market demand (production cost). Finally, in order to increase profitability, management cuts expenditures associated with marketing, maintenance, and research and development (R&D) (discretionary expenses). The lack of a clear correlation between R&D expenditures and sales or profits is one reason for the frequent manipulation of R&D budgets, prompting

management to take prudence when selecting whether or not to fund an endeavour.

Real earnings management, rather than accruals-based earnings management, is preferred to manage reported results to reach anticipated earnings objectives by financial analysts. In addition, Kankanamage (2015) found that 80 per cent of the managers would cut down on advertising and R&D, but 55.3 per cent of the participants would postpone or reject a project to reach their financial goals. To fulfil short-term goals, managers are more likely to compromise the long-term benefits that a project may bring to their organization in the future, according to the findings.

One or more of the following may explain why managers have a better motivation to control profits via real operations rather than discretionary accruals. To begin, the actions connected with real earnings management are less likely to be identified by either an auditor or a regulator than those associated with accrual-based activities, suggesting that the risk of detection is reduced (Kankanamage, 2015). Second, it is dangerous to manage profits only by using alternative accounting choices (accruals) since it is possible they will be examined and found.

According to Zang (2012), managers prefer real earnings management over the more conventional accrual-based earnings management. Her study indicates, however, that the two methods of earnings control are interchangeable and that there is a relative cost trade-off between accrual-based and real earnings management. In addition, Pacheco, Ali, et al. (2018) indicate that the majority of

managers use both strategies to meet or exceed profit goals owing to the timing of their use when earnings management is present. There is a possibility that businesses are required to reveal annual losses. Managers may have used existing procedures to maintain profit control, but actual results fall short of expectations. Although actual actions have the ability to reduce the deficit, this strategy cannot be adopted until the end of the current fiscal year (Ali et al., 2018). Similarly, accrual-based earnings management, which may be used even after the fiscal year has concluded, might not be accessible (Kuo, Lin, and Chien, 2021).

### **2.2.3 Management Motivation for Earnings Management**

Previous research provides some reasons why managers engage in income management practices. Some of the reasons are:

*Capital market rationale* - Companies listed on the capital market are required by market authorities to prepare quarterly financial statements, which investors use for decision-making. The use of information in the financial statements of investors and other stakeholders has allowed some academics and authors to assume that managers manage revenue to influence users of financial statements in their decisions (Flores, Weffort, da Silva, and Carvalho, 2016).

*Lending Contracts Motivations* - Loan agreements refer to the debt pact presumption, which states that a company's creditors often impose restrictions on the company with respect to various decisions, such as dividend payments, share repurchases, and additional debt as a means to ensure that the company repays debts and interest. Under this hypothesis, managers are motivated to manage

income so as not to breach their debt obligations, especially for firms with more debt in their capital structure (Alkebsee, Alhebry, Tian and Garefalakis, 2022).

*Political Cost Motivations* - Political costs motivate firms to engage in earnings management by creating incentives to meet or exceed financial targets set by government regulators or to avoid penalties for missing those targets. If a firm is facing the possibility of increased government scrutiny or fines for missing financial targets, it may engage in earnings management in order to meet those targets and avoid negative consequences. Additionally, firms may engage in earnings management to maintain their reputation or to avoid negative publicity, which can also be motivated by political costs (Attia, Lassoued and Attia, 2016).

*Management Compensation Contract Motivations* - This stems from management compensation theory, which suggests that managers be motivated to use income management to improve remuneration, as most managerial bonuses are linked to profits (Harris, Karl, and Lawrence, 2019). If a significant portion of a manager's compensation is based on the firm's stock price or earnings per share, they may have an incentive to engage in earnings management in order to inflate those metrics and increase their own compensation. Additionally, if managers have performance-based stock options, they may be incentivised to engage in earnings management to meet the targets for vesting those options. This type of incentive can motivate management to engage in earnings management to meet or exceed financial targets set by the Board of Directors or to avoid penalties for missing those targets (Li and Kuo, 2017).

*Regulation Motivations:* Companies operating in certain business sectors, such as banks, insurance companies and utilities, are subject to more rules than other companies. Regulations can motivate firms to engage in earnings management by creating incentives to meet or exceed financial targets set by government regulators or to avoid penalties for missing those targets. If a firm is facing the possibility of increased government scrutiny or fines for missing financial targets, it may engage in earnings management in order to meet those targets and avoid negative consequences (Libby, Rennekamp and Seybert, 2015). Additionally, some regulations may pressure firms to meet specific financial metrics to maintain their license to operate or to meet certain standards to be listed on a stock exchange. This can motivate firms to engage in earnings management to meet or exceed these requirements (Habbash and Alghamdi, 2015). Moreover, some regulations may also create legal liability for firms if they do not meet certain financial metrics; this makes management engage in earnings management to avoid legal repercussions.

#### **2.2.4 Ownership Structure**

Ang, Shao, Liu, Yang, and Zheng (2022) define ownership structure as the organization of ownership of a company and the distribution of voting rights and control among the owners. In a similar spirit, Din, Khan, Khan, and Khan (2021) refer to ownership structure as the types and number of shareholders that own the company's stock and the way in which control over the company is distributed among them. When ownership and management are separate, according to agency theory, the former is encouraged to utilise more lucrative accounting estimates and practises.

#### **2.2.4.1 Institutional Ownership**

The term "institutional ownership" refers to the ownership of a company's shares by institutions such as pension funds, investment firms, banks, and others (Mishra, 2022). Institutional ownership enhances management oversight, enhancing the quality of financial reporting as a consequence of fewer agency conflicts between shareholders and managers (Yong-jian, 2015). According to Ajay and Madhumathi (2015), institutional ownership's influence on monitoring corporate managers' behaviour may alleviate agency conflicts between shareholders and managers. Jensen and Meckling (1976) advocate using a system of ownership to anticipate agency issues. In an attempt to counteract profit manipulation and other immoral practices, institutional ownership has evolved to improve shareholder oversight over agents.

#### **2.2.4.2 Managerial Ownership**

Moudud-Ul-Huq, Biswas and Dola (2020) explain that managerial ownership is where a company's management, such as its officers and directors, hold shares in the company. Managerial ownership is where a company's management holds a significant portion of the voting rights, giving them control over the company's decision-making (Idris, Qabajeh, Mansour and Eitah, 2022). Vijayakumaran (2021) explain that managerial ownership is where a company's employees hold shares in the company through an employee stock ownership plan. Managerial ownership is also where top executives are given large amounts of stock or options as part of their compensation, providing them with a significant stake in the company (Shah, Lai, and Shad, 2022).

According to Rosmianingrum, Arshad, Mohammed, and Leo (2022), managers are more likely to exercise their discretion in producing financial reports to suit their own interests at the detriment of shareholders when they own relatively few shares in firms above the minimum needed by their job contract. According to agency theory, this conflict of incentives results from the division of duties between executives in charge of operating enterprises and the board as the controlling function. In contrast, formalising links with managers via share allocation would boost their incentive to maximise business value, so aligning or converging their interests with those of shareholders (Yuwono and Aurelia, 2021).

#### **2.2.4.3 State Ownership**

State ownership is where the government holds exclusive control over a particular industry or sector (Aguilera, Duran, Heugens, Sauerwald, Turturea and VanEssen, 2021). Cuervo-Cazurra and Li (2021) also state that state ownership is where the government holds a portfolio of assets, such as stocks, bonds, and real estate, managed by a sovereign wealth fund. However, Steffen, Karplus and Schmidt (2022) explain that state ownership is where the government holds a minority stake in a company alongside private shareholders. The state ownership structure is also where the government partners with private companies to jointly own and operate a business or project (Steffen, Karplus, and Schmidt, 2022).

According to Kim and Garanina (2022), state ownership is where the government establishes a separate legal entity, such as a corporation, to own and operate a business or industry. Aboud and Diab (2022) explain that state ownership affects earnings management by creating a different set of incentives for management.

State-owned firms may be less likely to engage in earnings management to boost their stock price because their primary goal may be to meet the objectives set by the government (Cheng, Wang and Wei, 2015). Additionally, state-owned firms may be more likely to engage in earnings management to meet government-imposed financial targets or to avoid penalties for missing those targets (Le and Nguyen, 2023).

## **2.3 Theoretical Literature Review**

### **2.3.1 Agency Theory**

Jensen and Meckling (1976) develop the agency theory. The theory investigates how principals and agents collaborate and focuses on the issue of information imbalance between them. Insiders are better knowledgeable than the principals in this case. This motivates agents, such as managers, to participate in behaviours that increase their advantages without the director's awareness. According to Roberts and Scapens (1985), the problem is exacerbated by the unfavourable selection, which may occur if the principal lacks insight into the agent's decision-making process. The second key element of this theory is that principals and agents are rational, self-interested actors. If this is the case, agents may simply participate in activities such as revenue management to improve their incentive advantages if they are related to the show.

According to Eisenhardt (1989), one issue with agency relationships is that principals may not always recognise when their interests are being neglected. However, monitoring and supervising their agents' compliance with the requirements of the implied contract may be difficult or costly for principals.

Principals and agents may have different risk tolerance, which might result in the agent participating in conduct that the principal would prefer they did not (Eisenhardt, 1989). Suppose financial analysts assist bridge the knowledge gap between owners and managers. In that case, managers may be less likely to participate in profit management, and shareholders may become less engaged as a result. To address the aforementioned problems, owners may opt to spend money on bonding and monitoring, both of which are agency-related expenses. Spending on agency expenses may encourage representatives to work in the best interests of their principals (Jensen and Meckling, 1976). For example, managers may be awarded stock options, so transforming them into official shareholders of the firm (Jensen and Meckling, 1976).

In summary, according to the agency theory, when a company separates ownership (i.e. shareholders) and control (i.e. management), there is a potential conflict of interest between these two groups. Shareholders want management to maximise profits and shareholder value, while management focuses on their goals and interests. This leads to earnings management, where management manipulates financial reports to meet their goals rather than the goals of shareholders. A higher level of ownership concentration helps mitigate this problem, as large shareholders have more influence over management and more effectively monitor and control their actions.

### **2.3.2 Bonus Maximization Theory**

Hearly (1985) states that the bonus maximisation theory is a school of economic thought that postulates managers artificially inflate earnings to boost their bonuses

and compensation. Following this principle, compensation for managers is proportional to their company's financial success when using metrics like return on assets and profits per share. Managers feel pressured to falsify financial reports to meet or exceed performance targets and earn higher bonuses and other forms of compensation. Managers engage in a wide variety of actions, according to the theory, to influence revenue and boost pay, including as

- Receipt of Income or Postponement of Expenditures
- Investing money rather than spending it
- setting aside funds for future use
- Adapting Budgeting Methods or Future Expectations
- engaging in transactions that boost earnings but might be detrimental to the company as a whole.

This theory suggests that management manage earnings to meet performance targets and receive larger bonuses (Shayan-Nia, Sinnadurai, Mohd-Sanusi, and Hermawan, 2017). In this context, a higher level of ownership concentration may not necessarily mitigate the problem of earnings management, as management may still have an incentive to manipulate financial reports to meet their own goals. However, if the large shareholders are actively monitoring the company and the management, they can align the management's goals with the shareholders and discourage them from engaging in earnings management.

### **2.3.3 Signalling Theory**

The signalling theory is an economic theory that suggests that companies use financial reports and other information to signal information about the company's

future performance to external stakeholders, such as investors and creditors (Bergh, Ketchen Jr, Boyd, and Bergh, 2010; Connelly, Certo, Ireland, and Reutzel, 2011). The theory is based on the idea that companies face uncertainty and information asymmetry and that financial reports can be used to provide information that helps reduce this uncertainty.

According to the theory, management may manipulate earnings to signal favourable information about the company's prospects, such as strong growth or high profitability. They may also choose to report lower earnings to signal a high level of risk or conservative management (Yimenu and Surur, 2019). According to the signalling theory, there is an association between ownership structure and earnings management in which management discloses information about the company's future performance to external stakeholders via financial reports. The theory suggests that management has the option of manipulating outcomes to highlight optimistic scenarios for the company's future, such as rapid expansion and substantial profits (Li and Chen, 2020).

To some extent, the problem of earnings management is mitigated by large shareholders, who are more likely to have accurate information about the company's prospects and be able to properly supervise and control management's operations. When significant shareholders keep an eye on the company and the management, it helps bring everyone together toward the same goals and deter profit-maximizing strategies.

## 2.4 Empirical Literature Review

Alexander (2019) examines the ownership structure and accounting practices of Indonesian industrial enterprises that are publicly traded. Independent variables include subcomponents of ownership composition (managerial, controlling, institutional, and foreign ownership). A secondary data collection containing financial statements is produced during the period of three years, 2014–2016. The 36 firms participating in this study were selected using a method of purposeful sampling. The study reveals a favourable association between high levels of concentrated ownership and creative accounting. This is because wealthy owners want to maximise their wealth by artificially raising profitability before selling the shares to less sophisticated bidders.

Moslemany and Demyana (2019) research the effects of concentration of ownership on inventive bookkeeping. They use discretionary accruals as a proxy for earnings management, with the data originating from Egyptian publicly traded companies. One set of independent variables comprises ownership mix indicators (block holder ownership, public ownership, and managerial ownership). Additional control factors include the ratio of market value to book value, the age of the firm, the size of the institution, and the return on assets. The findings of an Ordinary Least Squares regression indicate that a greater number of block holders correlates with shadier accounting practices. Statistically, earnings management and public ownership do not seem to be related.

Ekpulu et al. (2018) examine how concentrated ownership is associated with accounting tricks. They use Seventy-five publicly listed Nigerian firms for the

study. Beginning in 2009, they obtain six years of secondary data. The research employs Ordinary Least Squares regression to demonstrate that more management ownership is associated with less significant financial deception. However, the study does not establish a connection between institutional ownership and questionable accounting practices.

Bao and Lewellyn (2017) examine emerging countries' mix of ownership and profitability management. They use secondary data throughout the span of five years, from 2012 to 2016. The panel data set, including 1200 data points from 24 nations, is analysed using fixed outcomes and random outcomes regression techniques. According to the research, there is a strong association between earnings management and institutional ownership.

Saleem (2016) explores the relationship between ownership structure and profit manipulation using a sample of 62 businesses registered on the Amman Stock Exchange. A mix of conventional least squares regression and generalised least squares is utilised to analyse the data, with expert judgement applied to choose the sample firms. The data reveal that as ownership concentration increases, financial statement fabrications decrease. The study shows that external bondholders, family interests, and institutional ownership all reduce the possibility of manipulation.

Ponsian and Waweru (2018) examine the influence of company governance on financial reporting quality. In all, they collect information from forty-eight Kenyan and Tanzanian companies listed on public exchanges. Four hundred

eighty measurements were made between 2005 and 2014. This research treats board composition, meeting frequency, audit committee membership, firm size, and ownership concentration as independent factors. The proxy for earnings management is discretionary accruals. The findings indicate that institutional ownership promotes creative accounting practices. These findings provide support to the bonus maximisation theory and the passive hand hypothesis.

Outa et al. (2017) investigate whether the addition of the Capital Markets Authority's code of ethics reduces creative accounting. In order to do this, they use panel data consisting of 338 observations from 38 non-financial companies registered on the Nairobi Securities Exchange. They collect data over a period of 10 years, from 2004 to 2014. The independent variable is the index of corporate governance, while the experimental variable is discretionary accruals. Key control factors are profitability, leverage, cash flow, and return on assets. The approach of random effects regression was used to analyse the data in this research. There is no association between the corporate governance index and innovative bookkeeping, according to the research.

Ngalaka (2017) investigates the effect of corporate governance changes on financial reporting quality in Kenya. Sixty-six corporations registered on the Nairobi Securities Exchange had their information collated by the end of 2016. (NSE). The quality of financial statements is determined using a composite score derived from DA and the international financial reporting standards framework recommendations. The range of corporate governance systems developed by the authorities over the capital markets is one of the external effects. In this research,

both quantitative and qualitative methodologies are used. According to the findings, improving the corporate governance index increases the quality of financial reporting. Consequently, improved oversight minimises the likelihood of profit manipulation.

Iraya et al. (2015) investigate the relationship between the corporate governance index and the usage of non-traditional accounting practices. They use 49 firms that were actively traded on the Nairobi stock exchange between January 2010 and December 2012. Independent factors include the number of shareholders, the number of directors, the presence of a CEO pair, and the amount of board engagement. The Ordinary Least Squares regression approach is used for secondary data for analysis. The results of Ordinary Least Squares regression indicate that fewer instances of questionable accounting are created as ownership concentration rises.

Riro and Waweru (2013) examine the impact of organisational features on earnings management in Kenya. They utilise a total of 148 data points derived from panel data gathered from 37 businesses listed on the Nairobi Stock Exchange. The years 2009-2012 are covered by secondary source information. How profits are handled is the dependent variable, whereas the independent factors are the kind of firm, its size, its use of debt, and its profitability. The analysis indicated that the possibility of creative accounting increases as the ratio of institutional and block holder ownership increases.

Mwangi and Nasieku (2022) use a random effects model and Stata for statistical

analysis. From 2011 to 2019, information is gathered from all Nairobi Securities Exchange-listed manufacturing businesses. The study indicates that managerial ownership, institutional ownership, and ownership concentration have no effect on earnings management.

The research by Waheed, Hussain, Malik, and Khan (2022) is based on information gathered from 206 non-banking enterprises between 2015 and 2019. The findings of this study indicate that managerial and institutional ownership imposes restrictions on earnings management strategies and discourages myopic management. In addition, institutional investors' ownership of pension funds and investment firms restricts the implementation of earnings management techniques consistent with the investors' investment goals.

Examining the relationship between earnings management and manager concentration, foreign ownership, and state ownership are the three factors of ownership structure that Tran and Dang (2021) analyse. Additionally, they study whether the ownership structure affects profit management when resources are few. A more multinational ownership structure influences profit management favourably, but a more centralised structure has the reverse effect. Although there is no association between ownership concentration and profit management, the ownership ratio influences profit management when resources are restricted.

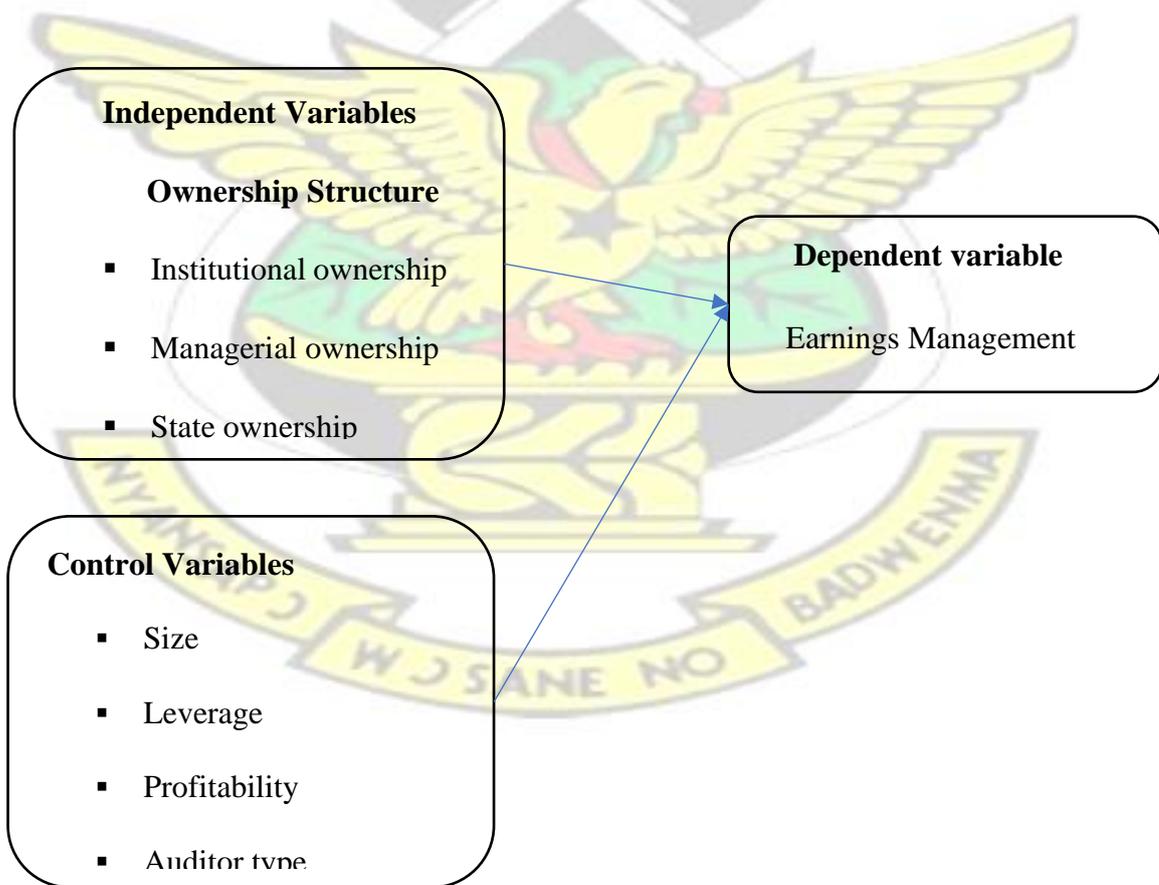
According to a study by Nguyen, Lien Le, and Anh Vu (2021), a sample of 489 non-financial enterprises trading on the Vietnam Stock Exchange benefit from improved profit management when the state owns either 100 per cent or the

majority of the company. In contrast, managerial involvement and foreign ownership are obstacles to earnings management.

## 2.5 Conceptual Framework

Figure 2.1 shows the framework for the study. The figure shows that the independent variables are institutional ownership, managerial ownership and state ownership. The dependent variable is earnings management and the control variables are size, leverage, profitability and auditor type. The independent variables links with the dependent variable and also the control variables links to the dependent variable.

**Figure 2.1 Conceptual framework**



Source: Created by Author

### **2.5.1 Institutional Ownership and Earnings Management**

The agency theory suggests that monitoring by institutional investors could be an important tool of governance. Institutional ownership is complicated and has advantages when it comes to monitoring and getting information (Jensen and Meckling, 1976). This makes it a good way to limit opportunism and cut down on agency costs by keeping an eye on management discretion. Ponsian and Waweru (2018) show that the pressure from institutional investors to meet short-term profit expectations can change the incentives for management to engage in earnings management. Waheed, Hussain, Malik, and Khan (2022) find a negative link between institutional ownership and earnings management, but previous research by Bao and Lewellyn (2017), Riro and Waweru (2013), and Mwangi and Nasieku (2022) find no correlation. Since institutional investors tend to be more focused on the long term, the study argues that their increased involvement has a positive effect on business behaviour because managers are less likely to manipulate earnings. This study tests the following hypothesis:

***H1: Institutional ownership negatively affects earnings management.***

### **2.5.2 Managerial Ownership and Earnings Management**

The agency theory states that managers who do not own shares in the company they manage may be influenced by incentives other than those intended to maximise the value of the organisation and its shareholders (Jensen and Meckling, 1976). On the other hand, managers tend to align their interests more closely with shareholders if they own shares in the firm they manage (Neg Ekpulu et al., 2018). Hence, it is anticipated that the amount of EM decreases. However, management ownership might backfire for EM if it results in self-serving accounting judgements by the company's highest management (Rahman, Suffian, Ghani, Said

and Ahmad, 2021). EM behaviour associates more managerial ownership according to the research of (Rahman, Suffian, Ghani, Said and Ahmad, 2021). However, Moslemany and Demyana's (2019) study find no correlation between the two factors. This study addresses this problem by testing the following hypothesis:

***H2: Managerial Ownership negatively affects earnings management.***

### **2.5.3 State Ownership and Earnings Management**

Businesses with a lot of state ownership have bad governance and audits (Nguyen, Nguyen, and Doan, 2020), which is often because of a rise in management power, which leads to earnings management. Most of the time, businesses that the government does not own are more accountable than ones that are. Because of this, there is a big chance that they manipulate the financial records. State-owned businesses are run by people who think about how the business helps the public other than the owner (Nguyen, Lien Le, and Anh Vu, 2021). Due to the different levels of management power shown in the ownership structure, they have to take into account different and often competing interests (Pos Nguyen, Lien Le, and Anh Vu, 2021). This makes management more likely to change data, which in turn raises the risk of EM. As a result, the study hypothesises that:

***H3: State ownership has a positive effect on earnings management.***

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The approach used to gather the data, the variables and the statistical methods used to report the results are defined in this section. It highlights, in particular, the analysis architecture, the sampling methodology, the sample size, the study variable description, the data analysis and the variables.

#### 3.2 Research Philosophy

Research philosophy refers to the set of beliefs, principles, and assumptions that guide the way researchers approach their investigations. It is a broad framework that encompasses a researcher's worldview, epistemology and ontology (Alharahsheh and Pius, 2020).

This study chooses objectivism as the ontological stance because objectivism assumes that an objective reality exists independently of human perception and experience. This perspective views the world as a collection of measurable, observable facts and events that can be studied using scientific methods (Al-Ababneh, 2020). This study typically involves collecting numerical data and using statistical analysis to identify patterns and relationships in the data. Objectivism aligns well with this approach because it assumes that the data collected is objective and can be measured and analysed without being influenced by the researcher's subjective interpretation.

The study chooses positivism as the epistemological stance because positivism emphasises the importance of empirical evidence and scientific methods for generating knowledge. Positivism assumes that objective knowledge can be obtained through the use of rigorous, systematic observation and measurement and that this knowledge can be used to make predictions and test hypotheses (Park, Konge, and Artino, 2020). The positivist epistemological stance is well-suited for this study because it emphasises the use of empirical evidence, objective measurement, and scientific methods. This approach ensures that the results of the study are valid, reliable, and generalisable to a broader population.

### **3.3 Research Design**

Research design is how the researcher selects and uses methods and procedures to collect and analyse data to answer a research question or hypothesis. It includes decisions about the study's objectives, methods, and outcomes (Creswell, 2013). The study thus uses both quantitative and explanatory designs. By collecting quantitative data, this study measures and tests hypotheses that relates to the study variables, while an explanatory design helps identify the relationship pattern between variables.

### **3.4 Population**

The research population is the total number of people, organizations, or other units that fit the criteria for the research study and are eligible for inclusion in the sample. The population for the study consists of all companies listed on the Ghana stock exchange. The number of listed companies is thirty-nine. The firms listed on the stock exchange include financial and non-financial firms and equity.

### **3.5 Sample Size and Sampling Technique**

The study selects nineteen (19) non-financial firms based on data availability. The research period is from 2009-2021 because this is the period that most firms have their data available. The convenience sampling technique is used to select the firms for the study. According to Barreiro and Albandoz (2017), convenience sampling is a sampling method in which the researcher selects participants who are readily available and easily accessible. The study employs non-financial firms quoted on the Ghana stock exchange. The nineteen firms are arrived at based on the following parameters. Companies whose data are not available for the period are excluded. Financial firms are excluded because the method of calculating earnings management for financial firms is different from non-financial firms hence combining both sectors in one study is not tenable. Earnings management for financial firms requires loan loss provisions and non-performing loans, which non-financial firms do not provide.

### **3.6 Data Collection Methods**

The study uses secondary data sources. The data is gathered from the annual reports of the sampled firms. The study extracts the data from the annual reports onto an excel sheet, using Stata software for the analysis.

### **3.7 Data Analysis**

The study uses panel data regression for the analysis. This regression technique is appropriate for the study because it considers observations over time and across units. Because the study data spans numerous firms and periods, it is classified as

panel data. Using a technique known as panel data, researchers collect longitudinal data on the same people or firms, which provides more useful information than time series or cross-sectional data. Panel data sets offer greater flexibility and less collinearity, as well as improved estimate efficiency and a larger variety of interpretations (Baltagi, 2001). Corporate governance studies are increasingly using regression panel models to analyse data, and in Ghana, this study uses a panel regression model to assess the relationship between ownership structure and earnings management. Researchers are fitting the regression model using fixed-effect or random-effects models.

### ***Random-effects Model***

To examine hierarchical or panel data when no fixed effects are present, researchers use random-effects regression, which permits individual effects. As a fundamental aspect of Random-effects estimation, unobserved heterogeneity must not be associated with the independent variables (Cai, Yu and Oppenheimer, 2014). If unobserved individual impact is linked with the model's regressors, the distinction between fixed-effects and random-effects models becomes more important than whether the effects are stochastic.

Chen, Cummins, Viswanathan, and Weiss (2014) recommend using random-effects regression whenever differences across entities influence the dependent variable. The inclusion of time-invariant variables is an advantage in random-effects models. In the fixed-effects model, the intercept, a constant, accounts for these factors.

### ***Fixed effects Model***

Fixed-effect models treat explanatory variables that appear to be non-random as if they are random. In panel data analysis, a fixed-effects model is an estimation of the regression model's coefficients. The model includes any entity connected to the regression variables due to time-independent variables (Cai, Yu and Oppenheimer, 2014). This model differs from random-effects and mixed models, which assume all or part of the explanatory variables to be random. Although the same model structure, usually a linear regression model, can be classified into one of the three categories based on the analyst's perspective, there may be a natural option in a particular case. Researchers use the Hausman specification test to determine whether a random-effects or fixed-effects model is appropriate (Chen, Cummins, Viswanathan, and Weiss, 2014).

### ***Hausman Test***

The Hausman Test compares random and fixed-effects regression models to determine which is best suited for a study. The test determines whether biases in the random-effects model can be ignored or whether the more constrained fixed-effects model is more appropriate (Chen et al., 2014). If the Hausman test is statistically significant, it is necessary to use fixed-effects regression. Conversely, random-effects regression is used if one of the explanatory variables in regression is affected by omitted variable bias, measurement error, or reverse causation for statistically insignificant findings (Chen et al., 2014). The Hausman test is employed to test fixed-effects and random-effects models. Furthermore, this thesis examines whether the general OLS requirements are met before conducting a multiple regression analysis.

### **3.7.1 Multicollinearity**

The method of estimating the OLS prevents the explanatory variables from being correlated with each other. Multicollinearity refers to a high association of the describing variables (Chen, Cummins, Viswanathan, and Weiss, 2014). Multicollinearity can cause accuracy loss, e.g., R-squared would be high, but there are high norm errors in the individual coefficients, and inferences are not accurate (Brooks, 2004). The association between the independent variables is analysed using the Variance inflation factor (VIF).

### **3.7.2 Autocorrelation**

Autocorrelation or serial correlation occurs when the error terms of the same time period (or cross-sectional observations) are correlated. When errors are related to each other, they are not considered linearly independent of each other. The presence of autocorrelation in a regression model leads to biased and inefficient estimates of the model's parameters, and it affects the statistical significance of the model's coefficients. This study performs the Wooldridge (2002) serial correlation test to identify serial correlation.

### **3.7.3 Heteroscedasticity**

Heteroscedasticity refers to the situation where the variance of the errors is not constant but varies across the values of the independent variables. If the variance of the residuals increases or decreases systematically with the level of an independent variable, then heteroskedasticity is likely present in the data. The study uses the Breusch-Pagan/Cook-Weisberg test to detect heteroskedasticity (Breusch and Pagan (1979). The test is based on the idea of regressing the squared

residuals on the independent variables in the model and testing whether the coefficient of determination is statistically significant. If the coefficient of determination is significant, then it suggests that heteroskedasticity is present in the data.

### 3.8 Data Analysis Model

$$MJM_{it} = \alpha_i + \beta_1 IO_{it} + \beta_2 MO_{it} + \beta_3 SO_{it} + \beta_4 Size_{it} + \beta_5 LEV_{it} + \beta_6 AT_{it} + \beta_7 Prof_{it} + \varepsilon_{it} \dots (1)$$

Robustness Check

$$KM_{it} = \alpha_i + \beta_1 IO_{it} + \beta_2 MO_{it} + \beta_3 SO_{it} + \beta_4 Size_{it} + \beta_5 LEV_{it} + \beta_6 AT_{it} + \beta_7 Prof_{it} + \varepsilon_{it} \dots (2)$$

$KM_{it}$  and  $MJM_{it}$ : This represents the dependent variable for individual "i" at time "t". It is the variable this study is trying to explain or predict.  $\alpha_i$ : This term captures the individual-specific effect or intercept for individual "i". It accounts for unobserved factors that are constant over time but vary across individuals.  $IO, MO, SO, Size, LEV, AT, Prof$ : These represent the independent variables or explanatory variables for individual "i" at time "t". These variables are used to explain the variation in the dependent variable.  $\beta_1, \beta_2, \dots, \beta_7$ : These coefficients represent the estimated effects of the corresponding independent variables ( $IO, MO, SO, Size, LEV, AT, Prof$ ) on the dependent variable ( $Y_{it}$ ). They quantify how changes in the independent variables relate to changes in the dependent variable, holding other factors constant.  $\varepsilon_{it}$ : This term represents the error or residual for individual "i" at time "t". It captures unobserved factors that affect the dependent variable but are not included in the model. In other words, it

accounts for the portion of the dependent variable's variation that is not explained by the independent variables.

MJM- modified Jones model, KM: Kotari Model, IO: institutional ownership, SO: state ownership, MO: managerial ownership, At: auditor type. LEV: leverage, Prof- profitability,  $\alpha$  - constant,  $\varepsilon$ - error term.

### 3.9 Measurement of Variables

This section presents the variables for the study. They include the dependent variable, independent variables and control variables. The dependent variable for the study is earnings management. The independent variables are institutional ownership, managerial ownership and state ownership and control variables for the study are firm size, profitability, leverage and auditor type.

This study uses discretionary accruals measured by modified Jones model (Dechow et al., 1995; Jones, 1991). Furthermore, the modified Jones is generally used in the literature to measure discretionary accruals (Kablan, 2020; Nguyen, Nguyen, and Doan, 2020; Saona, Muro, and Alvarado, 2020). First, an estimate of the total amount of accruals is made. In order to estimate total accruals, this study follow the methodology of Agyekum et al (2014) and use the cash flow method.

$$TA = NI - OCF \dots \dots (1)$$

Ta; total accruals, NI; is net income, OCF is operating cash flow.

The following model is used to obtain estimates of the firm specific parameters:

$$\frac{TA_{it}}{A_{it-1}} = \beta_1 \frac{1}{A_{it-1}} + \beta_2 \frac{\Delta REV - \Delta AR}{A_{it-1}} + \beta_3 \frac{PPE}{A_{it-1}} + \epsilon_{it} \dots\dots\dots (2)$$

The results of the study is checked using the Kothari model to measure earnings management (Kothari et al, 2005). Kothari et al. (2005) suggest an extension to the modified Jones model by incorporating ROA as a control for the firm’s financial performance. According to Kothari et al. (2005) model, discretionary accruals are estimated as the residuals of the following regression equation:

$$\frac{TA_{it}}{A_{it-1}} = \beta_1 \frac{1}{A_{it-1}} + \beta_2 \frac{\Delta REV - \Delta AR}{A_{it-1}} + \beta_3 \frac{PPE}{A_{it-1}} + B_4 ROA_{it} + \epsilon_{it} \dots (1)$$

TA; total accruals (net income less operating cash flow), A; total asset, ΔREV; revenue in year *t* minus revenue in year *t-1*, ΔAR; receivables in year *t* minus receivables in year *t-1*, PPE, Property plant and equipment, ROA; return on assets. The independent and control variables for the study are presented in the Table 3.1.

**Table 3.1: Variables, Measurement, Signs and Supporting Studies**

Variable	Measurement	Supporting Studies	Sign
<b>Dependent variable</b>			
Earnings management	Discretionary accruals estimated using the Modified Jones model and Kotari Model	(Kablan, 2020)	
<b>Independent Variables</b>			
Institutional Ownership	Percentage of board members below 45 years	(Nguyen, Nguyen, and Doan, 2020)	Negative
Managerial Ownership	the number of woman board directors divided by the total number of board members	(Tran, and Dang, 2021)	Negative
State Ownership	Non-Ghanaian board members	(Saona, Muro,	Positive

divided by the total number of the board members and Alvarado, 2020)

**Control Variables**

Firm Size	Natural log of total assets	(Saona, Muro, and Alvarado, 2020)	Positive
Profitability	Net income divided by total assets	(Saona, Muro, and Alvarado, 2020)	Positive
Leverage	The percentage of total liabilities to total assets	(Tran, and Dang, 2021)	Negative
Auditor type	A dichotomous variable, which takes the value of 1 if the firm is audited by the big4 audit firms and 0 if otherwise	(Tran, and Dang, 2021)	Negative

Source: Construct by Author



## CHAPTER FOUR

### RESULT AND DISCUSSION

#### 4.1 Introduction

This section presents the study's results based on the study's objectives. The section also discusses the findings of the study.

#### 4.2 Descriptive Statistics

Table 4.1 presents descriptive statistical data of the variables of the study variables. It discusses the average, minimum and maximum values. Table 4.1 shows that the mean data for the modified Jones and Kotari models is below 1.5. This shows that the figure is closer to zero; however, it implies that there is earnings management even though it is not on the higher side. The maximum figures give the impression that some firms highly engage in earnings management. In relation to ownership structure, the table shows that firms under the study are heavily controlled by institutional investors. It is unsurprising that managerial ownership has low figures since institutions dominate the ownership of financial listed firms. Also, 27 per cent of the shares of the sampled firms are dominated by the government, which implies that the government play a critical role in the decisions of the firms.

**Table 4.1 Descriptive statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
MJM	201	1.047	2.512	0.0006	25.19
KM	201	1.147	3.592	0.0004	34.808
IO	220	0.606	0.361	0.000	0.971
MO	220	0.102	0.325	0.000	2.986
SO	220	0.270	1.148	0.000	8.207

Size	220	18.070	2.061	13.408	23.587
Lev	220	0.625	0.317	0.021	2.618
Prof	220	-0.082	1.697	-25.064	0.455
AT	220	0.695	0.461	0.000	1.000

Source: Created by Author: Em- earnings management, IO: institutional ownership, SO: state ownership, MO: managerial ownership, At: auditor type. LEV: leverage, Prof- profitability

KNUST

#### 4.3 Multicollinearity Test

Table 4.2 present the result of the correlation among the independent variables. The table shows that the highest correlation is between institutional ownership and firm size, which is 54 per cent. This figure suggests that the correlation among the independent variables is low. Also, the VIF values are below 10. This confirms that there is no multicollinearity present.



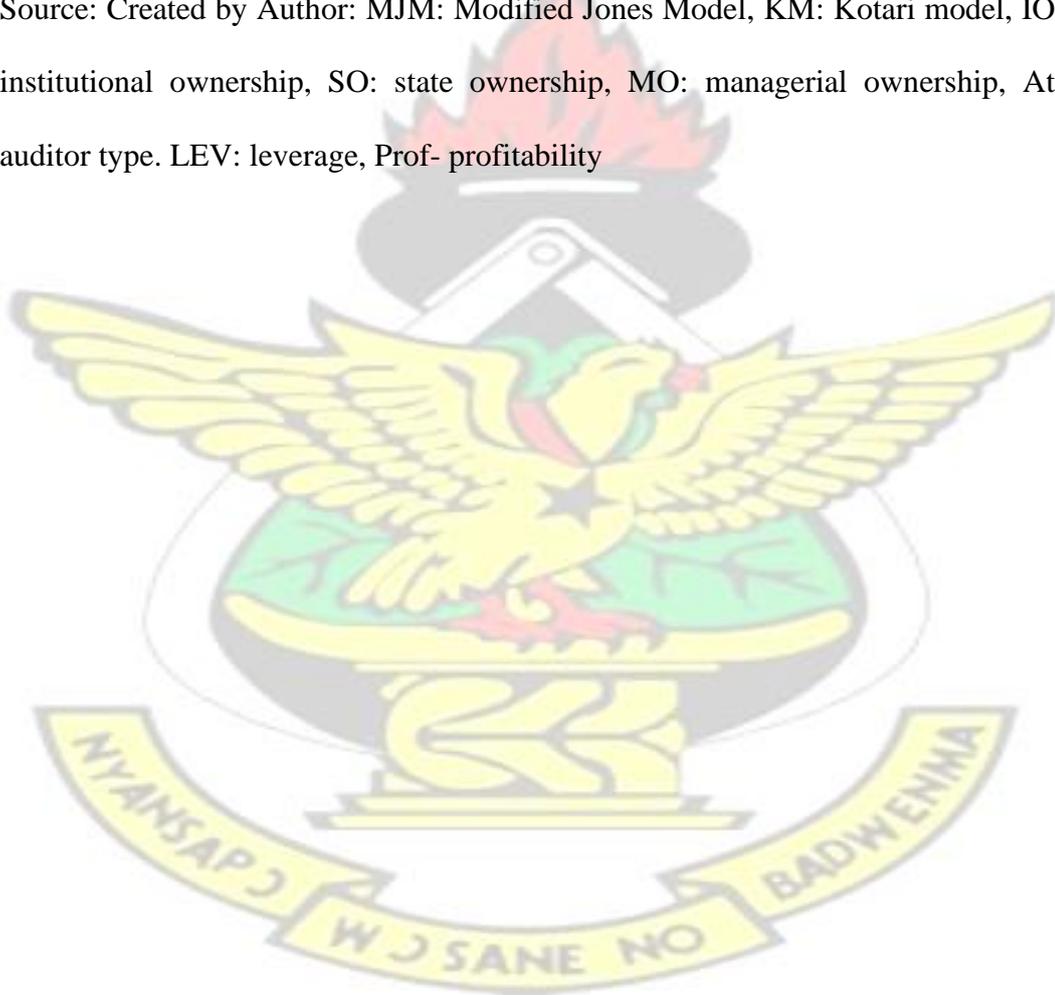
**Table 4.2 Pearson correlation**

	MJM	KM	IO	MO	SO	Size	Lev	Prof	AT
MJM	1.00								
KM	0.09	1.00							
IO	-0.29	0.25	1.00						
MO	0.30	-0.02	-0.06	1.00					
SO	-0.03	0.33	0.15	0.20	1.00				
Size	-0.56	0.29	0.54	-0.33	0.11	1.00			
Lev	0.12	0.20	0.30	0.19	0.03	0.04	1.00		
Prof	-0.03	-0.26	-0.01	0.00	0.01	0.07	-0.11	1.00	
AT	-0.41	-0.02	0.15	-0.25	0.06	0.38	-0.33	0.13	1.00

Source: Created by Author: MJM: Modified Jones Model, KM: Kotari model, IO:

institutional ownership, SO: state ownership, MO: managerial ownership, At:

auditor type. LEV: leverage, Prof- profitability



#### 4.4 Regression Model

The study conducts the Hausman test to determine whether to use the fixed-effect or random-effect model. Table 4.3 presents the results, showing that the p-value for equation one and two rejects the null hypothesis in favour of the alternative hypothesis, indicating that the fixed-effect model is more appropriate.

**Table 4.3 Hausman Test**

	Stat	P-value	Implication
Equation One	11.92	0.04**	Fixed effect
Equation two	12.25	0.00**	Fixed effect

Source: Created by Author: \*\*: 5% significance level, \*\*\*: 1% significance level.

#### 4.5 Diagnostic Test

The study tests for autocorrelation and heteroskedasticity to ensure that the regression results are not misleading. The result from Table 4.4 indicates that the variables are homoskedastic since the p-value is above 5%. In Table 4.5, the Wooldridge test for autocorrelation shows that there is first order autocorrelation since the p-value is below 5%, confirming the rejection of the null hypothesis. This study controls for autocorrelation using robust standard errors.

**Table 4.4 Heteroskedasticity Test**

	Stat	P-value
Equation One	0.01	0.97

Source: Created by Author:

**Table 4.5 Serial Correlation Test**

	Stat	P-value
Equation One	7.35	0.01***

Source: Created by Author: \*\*\*: 1% significance level.

#### **4.6 Ownership Structure and Earnings Management**

The result of the study is presented in this section. Table 4.6 shows that the r-square is 0.11. This implies that independent variables account for 11% of the variation in the dependent variable.

**Table 4.6 Ownership structure and earnings management**

	Coef.	Robust Std. Err.	t-stat	P-value
Institutional Ownership	-0.542940	0.207499	-2.62	0.02**
Managerial Ownership	0.477756	0.124400	3.84	0.00***
State Ownership	0.161304	0.009740	16.56	0.00***
Size	-0.090965	0.125006	-0.73	0.48
Leverage	0.429667	0.306285	1.4	0.18
Profitability	-0.034625	0.005796	-5.97	0.00***
Auditor type	-0.015420	0.119420	-0.13	0.90
Constant	17.992490	2.199051	8.18	0.00***
r-square	0.11			
Obs	201			

Source: Created by Author, \*\*\*: 1% significance level, \*\*: 5% significance level.

##### **4.6.1 Institutional Ownership and Earnings Management**

Table 4.6 shows that institutional ownership is negatively related to earnings management (Coeff. -0.542940; p-value 0.02). This relationship is significant at the 5 per cent level. The finding means that an increase in institutional ownership leads to a decrease in earnings management. This finding supports the study of Waheed, Hussain, Malik, and Khan (2022). This finding means that hypothesis 1 is accepted.

This study can be explained by the fact that most institutional investors pool resources from various sources, such as mutual funds and pension funds, and consequently have a strong incentive to closely monitor the company's financial performance and practises because they have a large stake in the company. This heightened scrutiny may make it more difficult for management to engage in earnings management practices without being detected.

According to Ramalingegowda Utke and Yu (2021), institutional investors often have a significant impact on the governance of a firm and may lobby for higher corporate governance norms, such as independent board members and stricter internal controls. This makes it more difficult for management to manipulate profits without being found. For the majority of Ghanaian businesses, institutional shareholders control substantial shares and, as a result, may have a prominent voice on the board and may fire managers if earnings management practices are discovered; as a result, these powers may discourage management from engaging in earnings management.

This finding is also consistent with agency theory. The agency theory backs up the notion that institutional ownership has a negative impact on earnings management. According to the agency theory, the interests of management (the agents) may not match the interests of shareholders (the principals), which may result in various issues, including earnings management. As significant shareholders, institutional investors have a higher motivation to monitor management's activities and may apply pressure on management to align its actions with the interests of shareholders. Institutional investors are also more likely to have the means to thoroughly monitor a company's financial performance and procedures and advocate for stricter corporate

governance norms, making it more difficult for management to manipulate earnings.

#### **4.6.2 Managerial Ownership and Earnings Management**

Table 4.6 shows that managerial ownership positively affects earnings management (Coeff. 0.477756; p-value 0.00). This relationship is significant at the 1 per cent level. The finding means that an increase in managerial ownership leads an increase in earnings management. This finding supports the study of Rahman, Suffian, Ghani, Said and Ahmad (2021). This finding means that hypothesis 2 is rejected.

Managerial entrenchment explains this finding. Di Meo, Lara, and Surroca (2017) suggest that management may present a good performance by engaging in earnings management practices to show that they are performing well and to maintain their position and control over the firm in order to increase the value of their shares. Also, managerial ownership gives managers more power and control over the firm, leading to increased earnings management practices. Managers may use their power and influence to push for accounting choices that improve the appearance of financial performance, even if those choices are not in the best interests of the company or its shareholders (Di Meo, Lara, and Surroca, 2017). Furthermore, managers with high ownership stakes may feel more entitled to engage in earnings management practices as they see themselves as bearing the risks and rewards of the firm's performance.

The finding also lends credence to the bonus maximisation theory. According to the theory, when management is eligible for bonuses or other performance-based remuneration, they may be motivated to participate in earnings management tactics to accomplish particular objectives that enable them to receive bonuses or other

performance-based compensation. This involves techniques like overstating revenue, understating costs, or delaying loss recognition in order to show the firm as financially secure and successful and to fulfil particular corporate-set benchmarks that would allow them to receive bonuses or other performance-based rewards.

#### **4.6.3 State Ownership and Earnings Management**

Table 4.6 shows that state ownership relates positively to earnings management (Coeff. 0.161304; p-value 0.00). This relationship is significant at the 1 per cent level. The finding means that an increase in state ownership leads an increase in earnings management. This finding supports the study of Nguyen, Lien Le and Anh Vu (2021). This finding means that hypothesis 3 is accepted.

The study explains the finding by the monitoring system of enterprises with substantial state ownership. According to Capalbo, Sorrentino, and Smarra (2018), state-owned enterprises have inadequate monitoring procedures. Because internal controls are poor, management may be able to conceal some transactions or utilise aggressive accounting procedures without being noticed. Furthermore, state-owned enterprises lack monitoring owing to political pressure or a lack of push for openness and accountability. To prevent being privatised or nationalised, management may engage in earnings management methods to show that the firm is financially secure and successful.

This finding also supports the signalling theory. According to signalling theory, organisations may utilise accounting information to indicate to the market information about their underlying performance, to increase their access to capital, or to advertise

their quality to prospective investors. In the case of state-owned enterprises, managers participate in earnings management in order to depict the business as financially secure and successful, signalling to the market that they have a good financial position and attracting possible investors. Overstating income, understating costs, or delaying the realisation of losses are examples of such tactics.

#### 4.7 Robustness Check

This study performs a robustness check to determine how sensitive the results of a study are to changes in the data. Earnings management is estimated using the Kotari model. The results are presented in Table 4.7. The table shows that institutional ownership is negatively related to earnings management. Also, managerial and state ownership are positively related to earnings management. This confirms that the results are robust.

**Table 4.7 Robustness check**

	Coef.	Robust Std. Err.	t-stat	P-value
Institutional Ownership	-0.5883786	0.2414184	-2.44	0.03**
Managerial Ownership	0.370953	0.1605483	2.31	0.03**
State Ownership	0.1692021	0.0114665	14.76	0.00***
Size	-0.0816044	0.1782604	-0.46	0.65
Leverage	0.6506361	0.3858673	1.69	0.11
Profitability	-0.1538517	0.0082295	-18.7	0.00***
Auditor type	-0.0736751	0.1384111	-0.53	0.60
Constant	17.60554	3.161876	5.57	0.00***
r-square	0.2			
Obs	201			

Source: Created by Author, \*\*\*: 1% significance level, \*\*: 5% significance level.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents summary of the overall findings of the research, general conclusion and recommendations for further studies.

#### 5.2 Summary of Findings

The study finds that institutional ownership has a significant negative effect on earnings management, implying that institutional ownership mitigates earnings management practices. This finding supports hypothesis 1 and also confirms the agency theory. Also, this finding supports the study of Waheed, Hussain, Malik, and Khan (2022).

The study finds that managerial ownership has a significant positive effect on earnings management which implies that managerial ownership increases earnings management practices. The finding means hypothesis 2 is rejected and supports the bonus maximisation theory. This finding also supports the study of Rahman, Suffian, Ghani, Said and Ahmad (2021).

The study also finds that state ownership has a significant positive effect on earnings management, implying that state ownership increases earnings management practices. The finding supports hypothesis 3 and relates to the signalling theory. This finding also supports the study of Nguyen, Lien Le and Anh Vu (2021).

### **5.3 Conclusion**

Based on these key findings, the research draws the following conclusions.

Based on research question one, the study concludes that institutional ownership reduces earnings management practices due to their strict monitoring which makes it more difficult for management to engage in earnings management practises without being detected.

Concerning research question two, the study concludes managerial ownership leads to earnings management practices due to the incentive managers receive for meeting certain financial targets hence they engage in earnings management for their personal benefits.

Concerning research question three, the study concludes that state ownership leads to earnings management practices because of the pressure from the external environment to meet certain targets forcing these firms to manipulate financial statements to present a favourable results.

Overall, the study concludes that ownership structure significantly affect earnings management practices however the direction of the relationship depends on the type of ownership in place.

### **5.4 Recommendation**

The study recommends that government entities that own companies take steps to ensure that the companies they own are adhering to proper accounting standards and are not engaging in earnings management. This can be implemented by the firm

establishing clear guidelines and policies for accounting and financial reporting.

Companies with low levels of institutional ownership should review their governance practices and ensure that there are adequate checks in place to prevent earnings management. Companies can implement this recommendation by having an independent board of directors, implementing effective internal controls, and having a clear process for communicating with shareholders.

Also, firms should consider implementing stricter monitoring and oversight of the companies with high levels of managerial ownership to ensure that proper accounting standards are followed. Firms can implement this by establishing committees such as audit, compensation, and governance committees to provide additional oversight and review of management's actions.

### **5.5 Recommendation for Further Studies**

The study recommends that researchers should explore board committees and how they affect earnings management. Also, further studies should be conducted on mediating variables in this study.

## REFERENCE

- Abor, J. and Biekpe, N., 2007. Corporate governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities. *Corporate Governance: The international journal of business in society*.
- Aboud, A. and Diab, A., 2022. Ownership Characteristics and Financial Performance: Evidence from Chinese Split-Share Structure Reform. *Sustainability*, 14(12), p.7240.
- Aguilera, R., Duran, P., Heugens, P.P.M.A.R., Sauerwald, S., Turtorea, R. and VanEssen, M., 2021. State ownership, political ideology, and firm performance around the world. *Journal of World Business*, 56(1), p.101113.
- Ahmed, I.A., 2019. Capital structure, ownership structure and corporate governance of SMEs in Ghana. *Journal of Accounting, Business and Management (JABM)*, 26(01), pp.45-52.
- Ajay, R. and Madhumathi, R., 2015. Institutional ownership and earnings management in India. *Indian Journal of Corporate Governance*, 8(2), pp.119-136.
- Ajay, R. and Madhumathi, R., 2015. Institutional ownership and earnings management in India. *Indian Journal of Corporate Governance*, 8(2), pp.119-136.
- Al-Ababneh, M.M., 2020. Linking ontology, epistemology and research methodology. *Science & Philosophy*, 8(1), pp.75-91.
- Al-Duais, S.D., Malek, M., Abdul Hamid, M.A. and Almasawa, A.M., 2022. Ownership structure and real earnings management: Evidence from an emerging market. *Journal of Accounting in Emerging Economies*, 12(2), pp.380-404.
- Alharahsheh, H.H. and Pius, A., 2020. A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), pp.39-43.
- Alkebeese, R., Alhebry, A., Tian, G. and Garefalakis, A., 2022. Audit committee's cash compensation and earnings management: The moderating effects of institutional factors. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 51(4), pp.389-416.

- Almari, M.O.S., Weshah, S.R.S., Saleh, M.M.A., Aldboush, H.H.H. and Ali, B.J., 2021. Earnings management, ownership structure and the firm value: An empirical analysis. *Journal of Management Information and Decision Sciences*, 24(7), pp.1-14.
- Ang, R., Shao, Z., Liu, C., Yang, C. and Zheng, Q., 2022. The relationship between CSR and financial performance and the moderating effect of ownership structure: Evidence from Chinese heavily polluting listed enterprises. *Sustainable Production and Consumption*, 30, pp.117-129.
- Attia, M.B.R., Lassoued, N. and Attia, A., 2016. Political costs and earnings management: evidence from Tunisia. *Journal of Accounting in Emerging Economies*.
- Bokpin, G.A. and Arko, A.C., 2009. Ownership structure, corporate governance and capital structure decisions of firms: Empirical evidence from Ghana. *Studies in Economics and Finance*.
- Capalbo, F., Sorrentino, M. and Smarra, M., 2018. Earnings management and state ownership: A literature review. *International Journal of Business and Management*, 13(6), pp.117-128.
- Cheng, C.A., Wang, J. and Wei, S.X., 2015. State ownership and earnings management around initial public offerings: evidence from China. *Journal of International Accounting Research*, 14(2), pp.89-116.
- Cuervo-Cazurra, A. and Li, C., 2021. State ownership and internationalization: The advantage and disadvantage of stateness. *Journal of World Business*, 56(1), p.101112.
- Dakhlallah, M.M., Rashid, N., Abdullah, W.A.W., Qawqzeh, H.K. and Dakhlallah, A.M., 2020. Accrual-based earnings management, real earnings management and firm performance: evidence from public shareholders listed firms on Jordanian's stock market. *Journal of Advanced Research in Dynamical and Control Systems*, 12.
- Di Meo, F., Lara, J.M.G. and Surroca, J.A., 2017. Managerial entrenchment and earnings management. *Journal of Accounting and Public Policy*, 36(5), pp.399-414.
- Din, S.U., Khan, M.A., Khan, M.J. and Khan, M.Y., 2021. Ownership structure and corporate financial performance in an emerging market: a dynamic panel data analysis. *International Journal of Emerging Markets*.

- El Diri, M., Lambrinouidakis, C. and Alhadab, M., 2020. Corporate governance and earnings management in concentrated markets. *Journal of Business Research*, 108, pp.291-306.
- Elnahass, M., Salama, A. and Yusuf, N., 2022. Earnings management and internal governance mechanisms: The role of religiosity. *Research in International Business and Finance*, 59, p.101565.
- Flores, E., Weffort, E.F.J., da Silva, A.F. and Carvalho, L.N.G., 2016. Earnings management and macroeconomic crises: Evidences from Brazil and USA capital markets. *Journal of Accounting in Emerging Economies*.
- Fogel-Yaari, H. and Ronen, J., 2020. Earnings management strategies for meeting or beating expectations. *Journal of Accounting and Public Policy*, 39(1), p.106714.
- Gerged, A.M., Albitar, K. and Al-Haddad, L., 2021. Corporate environmental disclosure and earnings management—The moderating role of corporate governance structures. *International Journal of Finance & Economics*.
- Guo, F. and Ma, S., 2015. Ownership characteristics and earnings management in China. *The Chinese Economy*, 48(5), pp.372-395.
- Habbash, M. and Alghamdi, S., 2015. The perception of earnings management motivations in Saudi public firms. *Journal of Accounting in Emerging Economies*.
- Harris, O., Karl, J.B. and Lawrence, E., 2019. CEO compensation and earnings management: Does gender really matters?. *Journal of Business Research*, 98, pp.1-14.
- Idris, M., Qabajeh, M., Mansour, A. and Eitah, R.A., 2022. Managerial Ownership and Real Activities Earnings Management. *Central European Management Journal*, 30(4), pp.2082-2089.
- Idris, M., Siam, Y.A., Qabajeh, M. and Eitah, R.A., 2022. Managerial Ownership and Accruals Earnings Management. *Central European Management Journal*, 30(4), pp.2076-2081.
- Kablan, M.A., 2020. The effect of ownership structure on earnings management practices toward achieving the real comprehensive income: An applied study on the listed companies in Libyan stock market. *Journal of Accounting and Auditing: Research & Practice*, pp.1-11.

- Kim, O. and Garanina, T., 2022. The relationship between CSR disclosure and accounting conservatism: the role of state ownership. *Journal of International Accounting, Auditing and Taxation*.
- Kliestik, T., Belas, J., Valaskova, K., Nica, E. and Durana, P., 2021. Earnings management in V4 countries: The evidence of earnings smoothing and inflating. *Economic Research-Ekonomska Istraživanja*, 34(1), pp.1452-1470.
- Kliestik, T., Valaskova, K., Nica, E., Kovacova, M. and Lazaroiu, G., 2020. Advanced methods of earnings management: Monotonic trends and change-points under spotlight in the Visegrad countries. *Oeconomia Copernicana*, 11(2), pp.371-400.
- Kuo, Y.F., Lin, Y.M. and Chien, H.F., 2021. Corporate social responsibility, enterprise risk management, and real earnings management: Evidence from managerial confidence. *Finance Research Letters*, 41, p.101805.
- Le, Q.L. and Nguyen, H.A., 2023. The impact of board characteristics and ownership structure on earnings management: Evidence from a frontier market. *Cogent Business & Management*, 10(1), p.2159748.
- Le, Q.L. and Nguyen, H.A., 2023. The impact of board characteristics and ownership structure on earnings management: Evidence from a frontier market. *Cogent Business & Management*, 10(1), p.2159748.
- Li, L. and Kuo, C.S., 2017. CEO equity compensation and earnings management: The role of growth opportunities. *Finance Research Letters*, 20, pp.289-295.
- Li, X.Y. and Chen, P.W., 2020. Meeting Dividend Thresholds Through Earnings Management of Listed Companies in South Africa. *Advances in Management and Applied Economics*, 10(6), pp.77-95.
- Libby, R., Rennekamp, K.M. and Seybert, N., 2015. Regulation and the interdependent roles of managers, auditors, and directors in earnings management and accounting choice. *Accounting, Organizations and Society*, 47, pp.25-42.
- Mishra, C.S., 2022. Does institutional ownership discourage investment in corporate R&D?. *Technological Forecasting and Social Change*, 182, p.121837.
- Moudud-Ul-Huq, S., Biswas, T. and Dola, S.P., 2020. Effect of managerial ownership on bank value: insights of an emerging economy. *Asian Journal of Accounting Research*.

- Musah, A., Okyere, B. and Boakye, E.A., 2021. The Effect of Ownership Structures on Audit Fees of Listed Firms in Ghana. *Journal of Accounting and Investment*, 22(2), pp.392-409.
- Mwangi, J.G. and Nasieku, T., 2022. Effect of Ownership Structure on Earnings Management in Listed Manufacturing Firms at Nairobi Securities Exchange, Kenya. *Asian Themes in Social Sciences Research*, 6(1), pp.12-24.
- Nalarreason, K.M., Sutrisno, T. and Mardiyati, E., 2019. Impact of leverage and firm size on earnings management in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 6(1), pp.19-24.
- Nguyen, A.H., Nguyen, L.H. and Doan, D.T., 2020. Ownership structure and earnings management: Empirical evidence from Vietnam real estate sector. *Real estate management and valuation*, 28(2), pp.37-51.
- Nguyen, H.A., Lien Le, Q. and Anh Vu, T.K., 2021. Ownership structure and earnings management: Empirical evidence from Vietnam. *Cogent Business & Management*, 8(1), p.1908006.
- Ningrum, E.P., 2021. The Role of Institutional Ownership, Independent Board of Commissioners, And Managerial Ownership on Earnings Management in Manufacturing Companies. *International Journal of Contemporary Accounting*, 3(2), pp.153-170.
- Park, Y.S., Konge, L. and Artino, A.R., 2020. The positivism paradigm of research. *Academic Medicine*, 95(5), pp.690-694.
- Rahman, M.M., Moniruzzaman, M. and Sharif, M.J., 2013. Techniques, motives and controls of earnings management. *International Journal of Information Technology and Business Management*, 11(1), pp.22-34.
- Rahman, R.A., Suffian, M.T.M., Ghani, E.K., Said, J. and Ahmad, I., 2021. Managerial Ownership And Real Earnings Management: A Study On Interaction Effect Of Religiosity. *Journal of Management Information and Decision Sciences*, 24, pp.1-10.
- Ramalingegowda, S., Utke, S. and Yu, Y., 2021. Common institutional ownership and earnings management. *Contemporary Accounting Research*, 38(1), pp.208-241.
- Rosmianingrum, D.A., Arshad, R., Mohammed, N.F. and Leo, L., 2022. Managerial ownership, board characteristics and stock price informativeness in Indonesia stock market: examination of the pre-IFRS and post-IFRS adoption periods. *Management & Accounting Review (MAR)*, 21(1), pp.61-93.

- Ruggiero, P., Sorrentino, D. and Mussari, R., 2022. Earnings management in state-owned enterprises: bringing publicness back in. *Journal of Management and Governance*, 26(4), pp.1277-1313.
- Saona, P., Muro, L. and Alvarado, M., 2020. How do the ownership structure and board of directors' features impact earnings management? The Spanish case. *Journal of International Financial Management & Accounting*, 31(1), pp.98-133.
- Sarpong-Danquah, B., Oko-Bensa-Agyekum, K. and Opoku, E., 2022. Corporate governance and the performance of manufacturing firms in Ghana: Does ownership structure matter?. *Cogent Business & Management*, 9(1), p.2101323.
- Shah, S.Q.A., Lai, F.W. and Shad, M.K., 2022. Moderating Effect of Managerial Ownership on the Association Between Intellectual Capital and Firm Performance: A Conceptual Framework. In *International Conference on Information Systems and Intelligent Applications: ICISIA 2022* (pp. 477-489). Cham: Springer International Publishing.
- Shayan-Nia, M., Sinnadurai, P., Mohd-Sanusi, Z. and Hermawan, A.N.A., 2017. How efficient ownership structure monitors income manipulation? Evidence of real earnings management among Malaysian firms. *Research in International Business and Finance*, 41, pp.54-66.
- Steffen, B., Karplus, V. and Schmidt, T.S., 2022. State ownership and technology adoption: The case of electric utilities and renewable energy. *Research Policy*, 51(6), p.104534.
- Steffen, B., Karplus, V. and Schmidt, T.S., 2022. State ownership and technology adoption: The case of electric utilities and renewable energy. *Research Policy*, 51(6), p.104534.
- Tran, M.D. and Dang, N.H., 2021. The Impact of Ownership Structure on Earnings Management: The Case of Vietnam. *SAGE Open*, 11(3), p.21582440211047248.
- Tran, M.D. and Dang, N.H., 2021. The Impact of Ownership Structure on Earnings Management: The Case of Vietnam. *SAGE Open*, 11(3), p.21582440211047248.
- Tran, M.D. and Dang, N.H., 2021. The Impact of Ownership Structure on Earnings Management: The Case of Vietnam. *Sage Open*, 11(3), p.21582440211047248.

- Vijayakumaran, R., 2021. Impact of managerial ownership on investment and liquidity constraints: Evidence from Chinese listed companies. *Research in International Business and Finance*, 55, p.101321.
- Waheed, A., Hussain, S., Malik, Q.A. and Khan, S., 2022. Ownership Structure and Earnings Management in View of Effective Monitoring and Myopic Institutions Hypothesis: A Dynamic Panel Estimation. *Global Business Review*, p.09721509221121186.
- Wati, E. and Tamaris Gultom, O.R., 2022. The impact of ownership structure on earnings management: evidence from the Indonesian Stock Exchange.
- Widagdo, A.K., Arifah, S. and Goestjahjanti, F.S., 2022. The Impact of Ownership Characteristics and Gender on Earnings Management: Indonesian Companies. *Journal of Risk and Financial Management*, 16(1), p.17.
- Widagdo, A.K., Rahmawati, R., Murni, S., Wulandari, T.R. and Agustiningih, S.W., 2021. Corporate governance, audit quality, family ownership and earnings management. *KnE Social Sciences*, pp.519-534.
- Wilson, M., Wang, K.T., Wu, Y. and Lau, A., 2022. Institutional investors and earnings management associated with controlling shareholders' promises: Evidence from the split share structure reform in China. *Journal of Contemporary Accounting & Economics*, 18(3), p.100330.
- Yimenu, K.A. and Surur, S.A., 2019. Earning management: From agency and signalling theory perspective in Ethiopia. *Journal of Economics, Management and Trade*, 24(6), pp.1-12.
- Yong-jian, L.I.N., 2015. Institutional ownership and earnings management. *Commercial Research*, 57(9), p.55.
- Yuwono, W. and Aurelia, D., 2021. The Effect of Profitability, Leverage, Institutional Ownership, Managerial Ownership, and Dividend Policy on Firm Value. *Journal of Global Business and Management Review*, 3(1), pp.15-29.

## APPENDIX

```

Fixed-effects (within) regression      Number of obs   =      201
Group variable: id                    Number of groups =      19

R-sq:                                  Obs per group:
  within = 0.1164                       min =          7
  between = 0.0371                       avg =         10.6
  overall = 0.0010                       max =         12

corr(u_i, Xb) = -0.5655                  F(7,18)         =      458.12
                                          Prob > F         =      0.0000
  
```

(Std. Err. adjusted for 19 clusters in id)

mj Jones	Robust		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
IO	-.5429404	.2074985	-2.62	0.017	-.9788785	-.1070023
MO	.4777557	.1244003	3.84	0.001	.2164003	.7391111
SO	.1613042	.0097397	16.56	0.000	.1408419	.1817666
size	-.0909646	.125006	-0.73	0.476	-.3535925	.1716634
lev	.4296668	.3062847	1.40	0.178	-.2138135	1.073147
prof	-.0346246	.0057959	-5.97	0.000	-.0468014	-.0224479
AT	-.01542	.1194199	-0.13	0.899	-.2663119	.2354719
_cons	17.99249	2.199051	8.18	0.000	13.37246	22.61253
sigma_u	.81347202					
sigma_e	.55441692					
rho	.68282591 (fraction of variance due to u_i)					

```

Fixed-effects (within) regression      Number of obs   =      201
Group variable: id                    Number of groups =      19

R-sq:                                  Obs per group:
  within = 0.2007                       min =          7
  between = 0.0094                       avg =         10.6
  overall = 0.0195                       max =         12

corr(u_i, Xb) = -0.4318                  F(7,18)         =      799.36
                                          Prob > F         =      0.0000
  
```

(Std. Err. adjusted for 19 clusters in id)

Kotari	Robust		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
IO	-.5883786	.2414184	-2.44	0.025	-1.09558	-.0811774
MO	.370953	.1605483	2.31	0.033	.0336535	.7082524
SO	.1692021	.0114665	14.76	0.000	.1451119	.1932924
size	-.0816044	.1782604	-0.46	0.653	-.4561156	.2929069
lev	.6506361	.3858673	1.69	0.109	-.1600411	1.461313
prof	-.1538517	.0082295	-18.70	0.000	-.1711413	-.1365621
AT	-.0736751	.1384111	-0.53	0.601	-.3644661	.2171159
_cons	17.60554	3.161876	5.57	0.000	10.96268	24.24839
sigma_u	.912072					
sigma_e	.69336694					
rho	.63374554 (fraction of variance due to u_i)					