

THE EFFECT OF TAX PLANNING AND EARNINGS MANAGEMENT
ON FIRM PERFORMANCE WITH MODERATED ROLE OF AUDIT
QUALITY AND DIVIDEND POLICY:
EVIDENCE FROM EAST AFRICAN LISTED COMPANIES

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DEDICATION

To my loving family, my wife Ester Shayo, my daughter Cailyn and my son Collin who offer unconditional love and support and have constantly been praying for me. Thank you so much!

ABSTRACT

THE EFFECT OF TAX PLANNING AND EARNINGS MANAGEMENT ON FIRM PERFORMANCE WITH MODERATED ROLE OF AUDIT QUALITY AND DIVIDEND POLICY:

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Heri G. Mulamula

This study examines the effect of earnings management and tax planning on a firm's performance with the moderated role of auditing and dividend policy on manipulative practices in East Africa. The study uses panel data of non-financial listed firms in East African countries over the period of eleven years from 2009 to 2019. Most importantly, the study has integrated both agency and signalling theories to examine the relationship between manipulative practices and firm performance. To avoid measurement errors and inconsistent results in conformist tax planning and earnings management measures, the study has utilized the modified Jones model (1995), the most widely accepted model for measuring accrual-based earnings management. Accordingly, the study has measured real earnings management by following the Roychowdhury model. Also, the study has measured tax planning by using disaggregated book-tax differences, while a firm's performance will be measured using Tobin Q and Return on Asset (ROA). Audit quality has been measured using the natural logarithm of audit fees, and the pay-out ratio has measured dividend policy. In addition, the study has performed a robustness check by using alternative measures of tax planning, audit quality and dividend policy. Using the Generalized Method of

Moments (GMM) estimator as the main model, the study finding reveals a significant relationship between tax planning, earnings management, and firm performance. Also, the finding indicates the negative moderated effect of dividend policy on the relationship between tax planning, earnings management, and firm performance. However, the results reveal no evidence that auditing quality significantly moderated the relationship between tax planning, earnings management, and firm value. Therefore, the study finding suggests that East African listed firms engage in manipulative practice to benefit managers' self-interest and reduce firm performance. Also, the impact of manipulative practices on firm performance is moderated by dividend policy. However, there is no moderated impact on Audit Quality. The study has theoretical, practical and policy implications regarding anti-tax avoidance measures and effective utilization of tax and financial regulations to wide range of stakeholders including shareholders, authorities and scholars in all EAC partner states.

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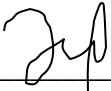
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APPROVAL SHEET

This dissertation/thesis entitled “**THE EFFECT OF TAX PLANNING AND EARNINGS MANAGEMENT ON FIRM PERFORMANCE WITH MODERATED ROLE OF AUDIT QUALITY AND DIVIDEND POLICY: EVIDENCE FROM EAST AFRICAN LISTED COMPANIES**” was prepared by HERI GASPER MULAMULA and submitted as partial fulfillment of the requirements for the degree of Doctor of Philosophy at Universiti Tunku Abdul Rahman.

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SUBMISSION OF FINAL YEAR THESIS

It is hereby certified that **HERI GASPER MULAMULA_** (ID No: **20ABD01061**) has completed this final year project/ dissertation/ thesis* entitled “THE EFFECT OF TAX PLANNING AND EARNINGS MANAGEMENT ON FIRM PERFORMANCE WITH MODERATED ROLE OF AUDIT QUALITY AND DIVIDEND POLICY: EVIDENCE FROM EAST AFRICAN LISTED COMPANIES” under the supervision of Asst Prof. Dr ZURIAWATI BINTI ZAKARIA (Main Supervisor) from the Department of Finance, Faculty of Business and Finance , and Asst Prof. Dr. ZAM ZURIYATI BINTI MOHAMED (Co-Supervisor)* from the Department of Commerce and Accountancy, Faculty of Business and Finance.

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DECLARATION

I HERI GASPER MULAMULA hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.



(HERI GASPER MULAMULA)

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LIST OF ABBREVIATIONS

| | |
|--------|--|
| AEM | Accrual Based Earnings Management |
| AQ | Audit Quality |
| BTD | Book Tax Difference |
| CFO | Cash Flow from Operations |
| DEF | Deferred Tax |
| DSE | Dar es Salaam Stock Exchange |
| DP | Dividend Policy |
| DV | Dependent Variable |
| DW | Deutsche Welle |
| EA | East Africa |
| EAC | East African Community |
| EBITDA | Earnings before Interest, Tax, Depreciation and Amortization |
| ECM | Error Component Model |
| EGLS | Estimated Generalized Least Square |
| EM | Earnings Management |
| ERC | Earnings Response Coefficients |
| ETR | Effective Tax Rate |
| EVA | Economic Value Added |
| EY | Ernst and Young |
| FEM | Fixed Effect Model |
| FGLS | Feasible Generalized Least Squares |
| FV | Firm Value |
| GDP | Growth Domestic Product |
| GLS | Generalized Least Square |
| GMM | Generalized method of moment |

| | |
|------|--|
| IFRS | International Financial Reporting Standards |
| IV | Independent Variable/ Instrument Variables |
| KPMG | Klynveld Peat Marwick Goerdeler |
| LSDV | Least Square Dummy Variable |
| MNC | Multinational Companies |
| NDA | Non-discretionary Accruals |
| NSE | Nairobi Securities Exchange |
| OECD | Organization for Economic Co-operation and Development |
| OLS | Ordinary Least Square |
| OLSE | Ordinary Least Square Estimator |
| PAT | Positive Accounting Theory |
| PCSE | Panel Corrected Standard Error |
| PD | Permanent Difference |
| PLC | Public Limited Company |
| PWC | PricewaterhouseCoopers |
| R&D | Research & Development |
| REM | Random Effect Model |
| REM | Real Earnings Management |
| ROA | Return on Asset |
| ROE | Return on Equity |
| RSE | Rwanda Stock Exchange |
| TA | Total Accruals |
| TD | Temporary Difference |
| TP | Tax Planning |
| TRA | Tanzania Revenue Authority |
| US | United States |
| USE | Uganda Securities Exchange |

CHAPTER ONE

1.1 Introduction

This chapter explains the concept of earnings management and tax planning manipulation on firm performance in East African Countries. Relevant issues are explored to guide the research scope of this study. Specifically, the chapter describes an overview of East African Communities followed by a study background. Furthermore, this chapter sheds light on the statement of the problem, research objectives and questions. Lastly, the chapter presents the significance of the study and research proposal organization.

1.2 Overview of East Africa Community

1.2.1 Background, economic and firm performance overview

The East Africa Region comprises 11 countries, whereby 7 of the countries joined to establish an intergovernmental organization known as the East African Community (EAC) made up of Tanzania, Uganda, Kenya, Rwanda, Burundi, South Sudan and the Democratic Republic of Congo. The total population of EAC was estimated to be 177 million in 2019 (East Africa Community (EAC), 2020). According to African Development Bank Group (AFDB) (2019), the economic performance in East Africa has been gradually growing ahead of other regions in Africa. In 2019, the GDP was estimated at 5.9. The economic growth in the region is said to be a result of the growth in the industry and service sector and improved performance in agriculture, tourism, mining and oil & gas exploration.

The EAC was established with the main objective of forming a single customs territory that emphasizes intra-trade and aims to abolish all internal barriers on tariffs and non-tariffs that can deter trade between partner states and allow the establishment of a large common market and investment area (EAC, 2020). Accordingly, trade policies between partner states must be harmonized to ensure that East Africa operates as a single customs territory and trade block (EAC, 2020). Thus, the major objective of EAC is to speed up economic development among partner states by creating a stable and competitive business environment.

East African countries generally have a common approach to taxation. They rely on a combination of direct and indirect taxes, including income tax, value-added tax (VAT), customs duties, and excise taxes. Tax rates and regulations vary slightly among countries but are often influenced by regional agreements and harmonization efforts. For instance, They agreed to implement a uniform statutory tax rate of 30% (EAC, 2020). Despite the mentioned similarities, there are differences in specific tax rules and rates. For example, the income tax brackets and rates and the treatment of certain sectors or activities vary across countries. Each country has its own tax laws and regulations, reflecting its unique economic priorities and fiscal policies.

East African countries are moving towards the adoption of IFRS as the accounting framework for financial reporting. IFRS provides a common language for financial reporting, facilitating comparability and transparency across borders. The maturity of IFRS adoption varies among East African countries. Kenya and Tanzania, for instance, have made significant progress in adopting IFRS and aligning their national accounting standards with international requirements.

Uganda, Rwanda, and Ethiopia may have made progress but could be at different adoption and implementation stages.

Literature has established a close relation between economic growth and stock market performance through savings mobilization, investment fund allocation and accessibility of long-term capital (Akileng et al., 2018). The East Africa Community has 117 listed firms in four capital markets; Nairobi Securities Exchange (NSE) , Dar es Salaam Stock Exchange (DSE), Uganda Securities Exchange (USE) and Rwanda Stock Exchange (RSE) (African Market, 2020). According to EAC (2020), all four capital markets in East Africa (EA) have laws governing the capital markets that are almost similar, with minor discrepancies due to the differences in market development. They have regulatory bodies overseeing their stock markets to ensure fair and transparent trading practices, investor protection, and market stability. These bodies often set rules and regulations for listing requirements, disclosure standards, and market surveillance.

The majority of the big firms in the community are listed on the NSE, which is the largest Capital Market in the region and fourth in Africa in terms of trade volume and market capitalization (Makau et al., 2015). NSE is also the most stable and liquid market in the region, followed by the DSE and USE (Makau et al., 2015). However, the East African capital markets are faced with similar issues hindering their growth and development. These issues stem from factors such as the lack of liquidity, low market capitalization, high transaction costs and lack of public awareness (Maina 2019). Table 1.1 presents the listing on EAC stock exchanges.

Table 1. 1: Listing on EAC Stock Exchanges

| Country | Year of Liberalisation | Establishment of Stock Markets | Listed Companies April 2020 | Market Capitalisation April 2020 |
|------------|------------------------|--------------------------------|--------------------------------|--|
| 1 Kenya | 1993 | 1954 | 65 | US\$19.31bn |
| 2 Rwanda | 1996 | 2005 | 08 | US\$3bn |
| 3 Tanzania | 1995 | 1996 | 27 | US\$6.34bn |
| 4 Uganda | 1988 | 1996 | 17 | US\$4.75 |

Source: African Markets and EAM database.

Literature has noted the existence of a significant positive correlation between stock market performance and a firm's performance in the East African Region (Makau et al., 2015; Akileng et al., 2018; Maina, 2019). The Capital Market Authority of Uganda has pointed out that one of the determinant factors for stock market performance is company performance, which is generally affected by industry types, economic performance, and other external environmental factors (African Market, 2020). Trade Mark EA (2020) has highlighted a significant correlation between market capitalization growth and the performance of the firm in EAC. The report showed that as a company's future profit grows, market capitalization in the stock exchange also increases proportionally to the projected value of the company.

Maina (2019) has indicated a positive correlation between a firm's performance and stock price and argued that profitability performance is not the only factor affecting stock market performance in EAC. Instead, there is a gap in knowledge that needs to be investigated further (Maina, 2019). On the other hand, Sergi et al. (2021) have indicated that real activity can justify stock return variations.

Tax planning and earnings management are regarded as part of the real activity that affects stock market performance. Gao et al. (2018) established a relationship between stock returns and tax planning by decomposing total tax expense into pretax income and permanent book-tax difference components. They found that tax planning (represented by permanent book-tax difference) negatively affects stock returns, as explained by persuasive observations and the misstatement of the accounting for the temporary difference. Li (2019) has revealed a positive relationship between stock returns and the joint adoption of accrual-based and real earnings management. Notably, from the vast literature in the region on the nature and pattern of the EAC stock exchange, there is a knowledge gap on the role of the capital market, tax planning and earnings management.

1.2.2 Rationale for Selecting EAC Sample for the Study

Despite having little research conducted in East African Countries, there are several other factors for choosing EAC as an appropriate research area for studying the effect of tax planning and earnings management on firm performance, as compared to other regions in Africa.

One of the important factors for choosing EAC is the economic significance of the partner states. As highlighted above, East Africa is home to some of the fastest-growing economies in Africa, including countries like Kenya, Tanzania, Uganda, and Rwanda. These countries have experienced significant economic development and have attracted foreign investments, making them important players in the African business landscape. Studying the effect of tax planning and earnings management in these economies provides insights into the dynamics of emerging markets and their impact on firm performance.

The regulatory environment is another critical factor for studies related to manipulative activities. East African countries have implemented various regulatory reforms to improve corporate governance, financial reporting, and tax administration (EAC, 2020). These reforms have created a unique regulatory environment influencing the region's tax planning and earnings management practices. By focusing on East Africa, the study can explore the specific regulatory frameworks and their implications for firm performance.

Thirdly, cultural and institutional factors: East African countries have distinct cultural and institutional characteristics that can influence business practices (EAC, 2020). Understanding how cultural norms, social capital, and institutional factors shape the region's tax planning and earnings management strategies provides valuable insights into the intersection of culture, institutions, and firm performance.

Data availability is another important factor that has influenced this study to draw its sample from EAC. Access to reliable and comprehensive data is crucial for conducting rigorous research. East African countries have significantly improved data availability, transparency, and reporting standards over the years. This enhances the feasibility and quality of empirical research, allowing researchers to obtain robust and representative datasets for analysis. EAC's research data can easily be obtained from reliable sources such as Bloomberg, Refinitiv, companies and tax authorities.

Furthermore, the study has considered the generalizability of finding as a crucial factor for selecting EAC. While each African region has unique characteristics, studying the East African context can provide insights that may apply to other regions with similar economic and institutional characteristics. By focusing on East Africa, researchers can contribute to the generalizability of findings and facilitate cross-regional comparisons in future studies.

Final but not least, business networks and integration of EAC have played an important role in the selection of the study area. East African countries have been actively involved in regional economic integration initiatives, such as the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA). These initiatives promote cross-border trade and investment flows, creating interconnected regional business networks. Investigating tax planning, earnings management, and firm performance in the context of regional integration can provide valuable insights into economic cooperation and integration implications for businesses operating in East Africa.

Finally, it is crucial to note that the choice of research area should align with the research objectives and questions. This study has carefully considered the specific motivations and rationale for selecting East Africa as the focus of the study, taking into account the specific context and relevance to the research topic.

1.3 Background of the Study

Recently, the study on the manipulation of a firm's performance related to earnings management and tax planning has attracted many scholars (Tarmidi & Murwaningsari, 2019; Viet Vu Khaoula & Moez, 2019; Bhagiawan & Mukhlisin, 2020; Sharif & Azim, 2021). One of the main reasons managers manipulate earnings and tax is to satisfy their shareholders by reporting the best performance. In reality, they have their own interest (Tarmidi & Murwaningsari 2019). Apart from this purpose of the principle and agent relationship, firm value is deemed to be another reason. Through earnings management and tax planning, managers can communicate a signal about the firms' good future performance, which influences shareholders' decisions on the stock markets (Siladjaja et al., 2018). This situation indicates that there is a significant implication of financial information quality on the future performance of the firms.

However, despite the positive market reaction associated with the quality of financial information, manipulations of earnings and tax have also indicated a negative impact on firm value. When they are done opportunistically, they both impair the quality of financial reports and ultimately decrease the firms' value (Yorke et al., 2016).

The earnings management concept can be explained as the use of judgment and subjective decisions in reporting the financial statement due to some hidden motives (Sundvik, 2016). It is commonly defined as vigorous manipulation of earnings by either recording accounting transactions without justification or failing to record complete transactions with a pre-set target to deceive several stakeholders about the true economic value of the entity (Comiskey & Mulford, 2002; Assurance Handbook 2003). In most scenarios, earnings management is

perceived to be conducted within the International Financial Reporting Standards (IFRS) requirement. In other words, earning management is not illegal, but it can mislead investors' decisions about the economic value of a firm (Sundvik, 2016).

Different scholars have viewed earnings management from two perspectives: Information and Opportunistically behaviour (DuValm & Santos, 2016; Sundvik, 2016; Yorke et al, 2016; Siladjaja et al., 2018). An information viewpoint is when managers want to communicate or signal their expectations to shareholders about the firm's future performance. The goal of the information perspective is to enhance the quality and relevance of the financial report to shareholders.

In contrast to the information perspective, opportunistic behaviour occurs when a manager intentionally acts on their self-interest and decides to manipulate earnings. Consequently, their action will reduce the value of firms (Almashaqbeh et al., 2018). Earnings management has thus proven to have a significant impact on firms' performance.

On the other hand, corporate tax is considered an explicit bond between firms and countries. It plays an essential role for governments as the primary source of their spending, although firms perceive it as a burden. Hence, firms are reported to engage in tax minimisation strategies in order to reduce their tax burden. For instance, firms make tax planning optimisation as their strategy to boost income after tax. Moreover, tax planning has to have complementary techniques that managers use to avoid tax and manage to improve the firm's performance through cash flow and profit (Desai & Dharmapala, 2018).

Though the government has a negative perspective on tax planning, not all activities associated with tax planning are contrary to tax regulations (Sundvik, 2016). Illegal tax avoidance practices can impose a significant risk to managers, including loss of reputation and imposition of penalties. However, due to the existence of information asymmetry, tax planning is reported to help managers to manage earnings in their interest and thus resulting in a negative impact on the firm's value (Desai & Dharmapala, 2018).

Despite the vast literature on tax planning and earnings management, relatively little attention has been placed on the connection between the two, and few empirical studies have provided evidence that tax planning serves as a motivation for earnings management (Amidu et al., 2019; Yorke et al., 2016). Based on the link between taxable profit and account profit, tax accounts provide an alternative measure of earnings. As a consequence of changes in tax legislation, tax planning may directly give motives for firms operating in the country to manage earnings (Sundvik, 2016). Accordingly, higher taxable income will be reported in a period of a lower tax rate, and lower taxable income will be reported in a period of a higher tax rate. Thus, tax planning plays a core part in earnings management by attempting to minimise tax expenses.

Dividend policy has been mentioned as one of the controlling mechanisms of manipulation activities in the firm. This is due to the reason that dividends payment depends on earnings performance. Thus, managers are required to concentrate on the quality of earnings and hence hesitate to enter into manipulation practices (Saleem & Alifiah, 2017). Parallel to this, audit quality has also played a significant role in reducing manipulation activities. The effectiveness of auditing exercises is measured by the ability of auditors to limit managers' opportunistic

behaviour in manipulating earnings and tax liability. Hence, higher-quality auditors are expected to discover inappropriate accounting practices (Alzoubi, 2016; Abdelwahed, 2018). Besides, Kaawaase et al. (2021) show that audit quality has a positive relationship with the quality of financial reporting. It is expected to improve the reliability of financial reports information and enables investors to make a more accurate estimate of the firm's value. Consequently, the moderating role of dividend policy and audit quality is expected to significantly reduce earnings management and tax planning practices when combined with other controlling mechanisms.

The EAC States are among the less developed countries that are still struggling to get rid of the economy. Most of their government spending depends on tax revenue collections. Although taxes are the primary source of revenue, most of these countries are still weak in collection strategies. As a result, there are still suffered from several tax manipulation incidents as reported (Cascais, 2019). Apart from being ineffective in revenue collection, these countries are also said to have another significant disadvantage; having inefficient stock markets compared to other developed countries. Their stock markets are deemed to be fragmented and full of risks (Atenya, 2019). According to Ncube and Kapingura (2015), fragmented stock markets are considered to be less efficient and effective due to the ease of flow of information and low transaction cost. Given these specific behaviours of tax avoidance and stock markets in these countries, there is a need for research to be done in the specified area. Hence this study has examined the impact of earnings management and tax manipulation on firm value in EAC, specifically in Kenya, Tanzania, and Uganda. Moreover, this study has also examined the moderated role of dividend policy and audit quality.

To examine the effects of tax planning and earnings management on firm performance with moderated role dividend policy and audit quality in EAC, the study adopts an agency and signalling theoretical framework. Agency theory provides a critical lens to understand the relationship between principals (shareholders) and agents (managers) in an organization (Yorke et al.,2016). It suggests that conflicts of interest arise due to the separation of ownership and control, leading to agency costs. In the context of tax planning and earnings management, agency theory predicts that managers may engage in opportunistic behavior to maximize their own interests, potentially at the expense of shareholders. Therefore, agency theory provides a theoretical foundation to explore the impact of tax planning and earnings management on firm performance.

Signaling theory focuses on how firms use signals to communicate relevant information to external stakeholders, thereby reducing information asymmetry and uncertainty (Desai & Dharmapala 2018; Amidu et al., 2019). In the context of this study, signaling theory suggests that firms strategically employ dividend policy and financial reporting choices as signals to convey information about their financial performance and prospects. By examining the moderating role of audit quality and dividend policy, this study aims to investigate how these signals may affect the relationship between tax planning, earnings management, and firm performance.

Based on the theoretical foundations of agency theory and signaling theory, this study develops hypotheses that establish the expected relationships between tax planning, earnings management, firm performance, audit quality, and dividend policy. For example, it is hypothesized that higher

levels of tax planning and earnings management will negatively impact firm performance. Moreover, the study expects that the moderating effect of audit quality and dividend policy will influence the strength of these relationships.

This study adopts a quantitative research design to empirically investigate the relationship between tax planning, earnings management, firm performance, audit quality, and dividend policy. By utilizing archival data, the study analyze the financial statements, tax disclosures, audit reports, and other relevant sources to capture the variables of interest. Also, multiple regression analysis using dynamic panel system two steps GMM was employed to test the hypothesized relationships. Moderation analysis also was conducted to examine the conditional effects.

1.4 Problem Statement

Since the emergence of financial scandals such as Enron, WorldCom, Qwest, and Tyco, to mention a few, the study of the manipulation of firm performance has become of great interest to investors and scholars. The manipulation of firm performance using earnings management and tax planning has intrigued researchers. Prior researchers have documented substantial evidence of the implication of earnings management and tax planning on the value of firms using different approaches, such as utilizing data from markets with a high level of liquidity and financial stability (Sundvik, 2016; Yorke et al., 2016; Almashaqbeh et al., 2018). However, most of these studies have been conducted in developed countries, and limited attention is put on less developed countries especially African countries (Amidu et al., 2019). Among the few studies conducted in less developed countries includes the studies by Amidu et al., (2019) in Ghana, El

Deeb and Ramadan (2020) in Egypt, and Imen and Anis (2020) in Tunisia. Kovermann and Velte (2019) proposed extending the scope to different environment settings for future research. Therefore, this research responds to this call by having a study in Africa.

Furthermore, the majority of studies carried out in developed countries, especially the US, China and European countries, have documented substantial evidence regarding the manipulation of tax planning and earnings management (Ftouhi et al., 2015; Pappas, 2015; Thomsen & Watrin, 2018; Khaoula & Moez, 2019). In the real sense, these countries were expected to have great potential to prevent manipulation activities because of their high level of technology and tight regulations compared to less developed countries. However, despite these countries' enormous capacity, they still failed to prevent manipulation activities completely. It was estimated to be a significant amount, although it was hard to determine precisely the amount of revenue lost due to tax avoidance, including those relating to corporate practices in developed countries (Sikka, 2016). Therefore, this contradicting results from developed countries motivate to re-examine the effect in less developed countries.

Prior literature on earnings management, tax planning, and the firms' value has given little attention to the implication of dividend policy and audit quality as moderated variables. There is a literature gap on the joint impact of audit quality and dividend policy on manipulative practices. None of the prior studies has assessed the joint implication of dividend policy and audit quality on earnings management, tax planning, and the firms' value. Dividend policy and audit quality are considered to be the essential factors in moderating the impact of earnings management and tax planning (Ranajee & Pathack, 2018; Siladjaja et al., 2018). Nevertheless,

early studies revealed contradictory observations on the relationship between dividend policy and earnings management.

Literature has noted the mixed finding on the relationship between dividend policy and manipulation practices. Dividend policy is argued to have an impact on both upward and downward real earnings management and tax planning. The cash paid out as a dividend is presumed to limit opportunities for managers to consume excess cash for their personal benefit (He et al., 2017). Based on the evidence provided by He et al. (2017), using a sample from 23,429 companies from 29 countries, it was revealed that dividend payers are less involved in the manipulation of earnings compared to non-dividend payers. However, this observation has been explained to vary based on geographical locations and Institutional factors. According to Thompson and Manu (2021), US firms are under higher pressure to set their dividend policy than non-US firms. That means non-US firms are more likely to excise manipulative practices regardless of their dividend policy. Despite the mixed findings, this study, in line with Siladjaja et al. (2018), considers dividends to be an appropriate moderate variable of harmful manipulative practice because one needs to have quality earnings to declare dividend payment.

Likewise, investors are influenced by audited financial reports to make investment decisions. Because the auditors are responsible for protecting the interest of stakeholders by ensuring the reported financial statement is free from material misstatement. In this context, audit quality is said to minimise the impact of earnings management and harmful tax planning. Parallel to this, the agency problem caused by segregation in ownership and control of the firm requests the engagement of an external auditor to monitor managers into exercising harmful manipulative

practices (Alzoubi, 2016). Thus, this study uses dividend policy and audit quality as moderated variables to test the impact of earnings and tax planning manipulations in the East Africa context. In addition, the strengths of these moderated effects have been analysed in order to reveal their magnitudes in restraining manipulative practices.

However, given the findings from developed countries, Arturo et al. (2017) point out that some of these findings may not be applied in the African context due to the low stage of economic development, corruption practices and political interference. Kovermann and Velte (2019); Almarayeh et al., (2020) revealed that due to differences in an institutional environment, some measures of tax avoidance might be explicitly suitable for developed countries and not elsewhere. Thus, this study intends to cover this gap by including institutional variables which suit the African environment. One of the distinguishing variables is Political Interference. African firms are deemed to have high political interference compared to European and US firms (Arturo et al., 2017). By conducting this study in Africa which is characterised by a high level of political interference, this study reveals a different finding from one obtained from developed countries.

African countries have raised concern over the increased cases of earnings management. Some of the reported cases are Cadbury PLC scandal, where the top management of the company was participating in manipulating accounts to conceal specific deficiencies and other corrupt deals (Micah & Chinwe, 2014). Kenya was witnessed to experience many scandals which have led to the falling and bankruptcy of Uchumi Supermarket, Mumias Sugar, Dubai Bank, Imperial Bank

and Chase Bank (Miriri, 2017; Mirondo, 2017; Amadala, 2019). Similarly, Tanzania experienced the same situation in which some of the companies have been put under liquidation and receivership. For instance, Twiga Bank and Bank M were forced into mergers and acquisitions with other banks (Kibuuka, 2016; African Markets, 2018; TanzaniaInvest, 2018; Malanga, 2019). Due to the cases of earnings management practices, many companies have issued profit alerts blaming factors such as weak local currency, accounting fraud, and increasing competition to be the leading causes (The East African, 2015). Therefore, this study provides a reasonable understanding and more evidence of factors influencing manipulation practices in East Africa.

Moreover, tax planning manipulation was also deemed to be a significant challenge facing African countries. According to the online report issued by Cascais (2019), African countries are proclaimed to lose not less than USD 50 million each year due to tax avoidance. Furthermore, the report points out that African countries such as Kenya, Tanzania, South Africa, and Egypt are being cheated out of billions in tax revenue by large companies in the tourism, energy and resource sector. In most cases, firms are reported to misrepresent the profit by invented or falsified numbers in order to make sure their tax obligations are minimal. Hence, Evarist Mashiba, a former commissioner for tax investigation and enforcement at Tanzania Revenue Authority (TRA), commends the EAC member states to have an urgent and coordinated action plan in order to reduce millions of dollars lost in tax evasion and fraud practices (Xinhua, 2017).

However, these countries have started to take considerable measures against tax avoidance practices in recent years. The measures taken are to review and introduce tax regulations that will mitigate such manipulation practices. Kenya enacted the Finance Act in November 2019 and

recently issued a new amendment in June 2022, which has affected several changes to the tax regime in Kenya (Kenya Gazette Supplement, 2022). Moreover, the country is in the process of reviewing its income tax regime. Uganda issued an income tax (amendment) act in 2022 (Uganda Gazette, 2021), while Tanzania, apart from issuing a new finance act in 2019 and reviewed in 2022 (Mselle et al., 2022). Also, Uganda had reviewed its transfer pricing regulations in 2018. Though these countries have taken significant measures to review and set new tax policies and regulations, the extent of effectiveness of these regulations against manipulations strategies is yet to be tested. This study is therefore timely and deserving.

Furthermore, there are other several reasons why this study has been worth studying in the EAC. First, many EAC Member States have experienced significant changes in both internal and external economic and political conditions during the last decade, with enormous effects on both the public and firm's performance (Namahoro et al., 2021). Second, since the adoption of IFRS, the EAC is still struggling to comply with all requirements of the Standards (Nurunnabi, 2021). As a result, different treatments are used by companies to present their records. This provides the opportunity for many firms to use this flexibility to their advantage. Third, extensively reported tax avoidance and financial scandals reflected the existence of manipulation activities that have affected revenue collections of the respective countries and shareholder wealth (Amadala 2019; Cascais, 2019; Malanga 2019).

Additionally, the current increase in tax to GDP ratio in these countries provides an alert for further research on the extent of manipulation practices. For instance, in Tanzania, the tax to

GDP ratio has increased from 7 to 13% from 2000 to 2018, while the overall EAC (excluding South Sudan) stand at 14.6% (Semboja & Msafiri, 2022, Semboja et al.,2022). Lastly, these countries share many similarities in terms of capital market structures and economic conditions, which all together make one more interested in understanding whether they also share the same pattern of manipulative practices. These factors have made the study serve as a response call by previous researchers for more research on earnings management and tax planning in different economic settings (Yorke et al., 2016).

1.5 Research Objectives

The main objective is to investigate the effects of tax planning and earnings management on firm performance with the moderated role of audit quality and dividend policy in EAC. The specific objectives include:

1. To examine the effect of earnings management on the performance of firms in EAC.
2. To examine the effect of tax planning on the performance of firms in EAC.
3. To examine the joint effect of tax planning and earnings management on the firms' performance in EAC.
4. To examine the moderated effect of a firm's audit quality and dividend policy on the relationship between tax planning and firm performance
5. To examine the moderated effect of a firm's audit quality and dividend policy on the relationship between earnings management and firm performance

1.6 Research Questions

To achieve the main objective, this study will be guided by the following research questions:

1. Does earnings management affect the performance of firms in the EAC?
2. Does tax planning affect the performance of firms in the EAC?

3. Do tax planning and earnings management have a joint effect on the firm performance in EAC?
4. Do firms' audit quality and dividend policy moderate the relationship between tax planning and firm performance?
5. Do firms' audit quality and dividend policy moderate the relationship between earnings management and firm performance?

1.7 Significance of the Study

The study bridges the research gaps that have been identified. Also, it makes some significant theoretically and practically contributions in the following areas.

1.7.1. Body of Knowledge

This study contributes to both Agency Theory and Signalling Theory. Agency Theory prescribes the contractual relationship between the principal (owner) and Agency (Manager). Whereby Signalling Theory describes the flow of information between agency and principal. Accordingly, there is a conflict of interest between an agent and principal caused by one side deviating from the regular or mutual agreement between them. The agency problem caused by information asymmetry between managers and shareholders will allow managers to engage in manipulative practices in their favour since shareholders would have limited information about the true economic view of the firm (Alzoubi 2016).

Although much literature relates earnings management and agency problems, most of them have been limited to one type of earnings management. A large stream of literature has put more effort into Accrual-based earnings management (Yorke et al., 2016; Abdelwahed, 2018; Amidu et al.,

2019; Tarmidi & Murwaningsari, 2019) than the effect of real earnings management. Likewise, recent studies reveal the evidence that many companies, especially those audited by the big 4, have shifted from using accrual-based earnings management (AEM) to real earnings management (REM) (Sandvik, 2016; Li, 2020). Real earnings management is also considered to be one of the alternative methods managers use to deviate from their normal business practices with the main goal of achieving their personal interests (Roychowdhury, 2006). Therefore, by examining the impact of both types of earnings management, this study helps to contribute to explanatory factors for both agency and signalling theories.

Another explanatory factor for Agency Theory and Signalling Theory is tax planning. If Tax planning is effective and efficiently arranged, it is reported to favour shareholders. This is because tax planning is done to reduce tax liabilities and maximize profit after tax. So, managers can use tax planning to reduce agency conflict and reduce information asymmetry by revealing good information to shareholders. However, most of the previous studies on tax planning have measured the effect by using aggregated book-tax differences (Ftouhi et al., 2015, Yorke et al., 2016, Almashaqbeh, 2018). Using aggregated book-tax differences will not distinguish the impact of positive and negative manipulation on firm value (Sundvik, 2016). Similarly, using total book-tax difference as one measure of tax planning might result in an overstatement of the tax planning indicator (Abdul-Wahab 2014). Hence to avoid overstatement of tax planning and also to be able to distinguish the impact of positive and negative manipulation, this study uses disaggregated book-tax difference as a tax planning proxy.

Apart from contributing to Agency and Signalling Theories, the study also contributes to other theories, such as Positive Accounting and Regulatory Theories. The Positive Accounting Theory was introduced as the extension of Agency Theory to examine three agency relationships: management and owners; management and creditors; and management and government. The Positive Accounting Theory postulate that managers are in a position of choosing between acting efficiently to present the true economic position of the firm or being selfish and acting opportunistically to present an unrealistic economic position of the firm for their personal benefits (Walker, 2013; Salaudeen, 2017; Kim & Im, 2018; Rani et al., 2019; Salah, 2019). Accordingly, conducting a study on the manipulative practice of firm performance by linking tax planning and earnings management helps to contribute literature on the positive accounting theory, which reveals the intention of managers to use accounting methods to reduce their earnings for the purpose of reducing the tax burden.

On the other hand, the basis of the Regulation Theory is to establish whether the development of the stock market can be influenced by the accounting policies and tax management strategies employed by a firm, which can also impact its future performance. The stock market's regulator has the authorization to influence firms to choose the specific accounting policies corresponding to the quality of the financial information (Siladjaja et al., 2018). Tax regulations of some countries do not entirely comply with the requirement of IFRS. For example, Some IFRS such as impairment, non-performing loan, lease and hedge have different tax treatment requirements as per Tanzania tax regulations. Hence the application of regulatory theory implies that the management will have a genuine desire to enhance the quality of financial statements by

reducing opportunities for earnings management and minimizing tax planning activities (Tarmidi & Murwaningsari, 2019).

Furthermore, both Agency Theory and Signalling Theory have established the importance of moderating managers' actions to align with shareholders' interests (Siladjaja et al., 2018). This study contributes to the existing literature on the two Theories by incorporating both dividend policy and audit quality as moderated variables for earnings management and tax planning. Past studies on earnings management and tax planning have ignored the joint effect of dividend policy and audit quality in restraining manipulative practices. Both dividend and audit quality have proven to significantly affect manipulative practices. Joint utilization of the two variables brings a major impact on manipulative practice (Moghri & Galogah, 2013).

Finally, to the best of my knowledge, this study represents the initial or inaugural research effort to link agency and signalling theory with earnings management, tax planning and firm performance while utilising both dividend policy and audit quality as moderated variables in the EAC. However, most of the prior research is devoted to developed countries. Less attention has been given to the least developed countries or the EAC, for that matter. Therefore, this study adds value to the existing literature by exploring new evidence in the EAC. Moreover, the study extends the literature to the implication of tax planning and earnings management on the value of the firms, providing more empirical evidence on Agency Theory and its corresponding theories.

1.7.2. Contribution to Policy Makers and Society in general

Managing manipulative practices such as tax avoidance and earnings management practices is increasingly challenging for tax administrations and international organisations such as the Organization for Economic Co-operation and Development (OECD). East African countries are explicitly vulnerable to aggressive tax planning and accounting manipulation due to deficiencies in their legal tax framework and inadequate resources & expertise to monitor the underlying behaviours (Mo, 2003).

These countries have undertaken different measures, including tax reforms and reviewing financing acts, but are yet to yield successful outcomes. Multiple cases of tax avoidance practices have been reported in East African countries. For example, in Tanzania, many court cases for the people charged with tax manipulation practices have been filed over the past five years, such as Tanzania Vs the African Barrick Gold Plc case No. 144 of 2018, Tanzania Vs Alliance One Tobacco case No. 118 of 2018 (TPcases.com, 2020). Therefore, by recognizing the importance of resolving the manipulative techniques in East African countries. This study has the following contributions to policymakers and society in general.

Firstly, the study makes a significant contribution to the EAC member states, tax administrators and public policymakers on the issue of tax planning and Accounting manipulations behaviours. The study provides information that may enhance the knowledge and understanding of earnings and tax manipulative activities in the EAC and help to determine the number of resources to be allocated to mitigate the effects. It also guides tax authorities and auditing firms in conducting

active investigations and assurance services by focusing on the firms with significant book-tax differences, discretionary tax accruals and earnings accruals.

Secondly, the study also serves as a source of helpful information to all shareholders in estimating and evaluating the quality of financial reports before making economic decisions concerning investment and resource allocations. These include investors and users of financial information. Also, since the study examines the impact of the interaction of earnings management and tax planning, it provides valuable information to shareholders and the board of directors on reviewing the measures proposed to reduce corporate tax.

Thirdly, the study is of great interest to other stakeholders such as party-government/relevant ministry, institution, society, and academician. Specifically, the study helps the government and ministry of finance in all EAC partner states to have relevant information about the growing tax gap caused by the disparity between the actual taxes collected and the theoretical ones that should be collected. Academicians should also use such information to expand their research in corporate taxes and advise the responsible government and institutions accordingly about the appropriate measures to control tax avoidance and increase revenue base. Also, society should use the outcome of this study to increase their fairness in tax laws and ensure they respond fairly to tax liabilities.

Finally, since all EAC Member States have adopted the IFRS, the study helps them ascertain whether the companies' information quality has improved or otherwise after the adoption of

IFRS. Lastly, the study allows policymakers to design tax policies that fill the gap between the international standards and the existing regulations.

1.8 Organisation of the Study

In this study, chapter one presents the background information regarding the effect of earnings and tax manipulative activities on the firm performance in East African Countries. It highlights the main problems which present a research gap. The objectives of the study and research questions are developed to guide the study, as well as the significance of the study, which bridges the identified research gap and marks some significant contributions.

The second chapter discusses the literature that presents an overview of the relevant prior studies, research methodology, and the identification of the research gap. Chapter two will also review theories underlining the study. Justifications will be given to support the selection of Agency Theory and Signalling Theory as the fundamental theories. Furthermore, chapter two also includes the conceptual framework and hypothesis development.

Chapter three aims to discuss the research methodology adopted, the research paradigm of the study, the proposed conceptual framework, research design, data collection and analysis techniques.

Chapter four is dedicated to reporting and interpreting the empirical results, which are derived by using estimation models presented in chapter three.

Chapter five provides the discussion of finding and concluded remarks based on the results presented. Also, it reports the limitations and implications of the study and suggests areas for future research.

1.9 Chapter Summary

This chapter introduces the research topic, which aims to examine the effect of earnings and tax manipulative activities on firm performance with the moderated role of audit quality and dividend policy in EAC. The chapter started by providing background of the EAC and the topic under review. It sets the research's tone by discussing the study's main issues and problem. The chapter also reveals the study's significance by exploring its theoretical and practical contribution. The study has a theoretical contribution to the Agency and Signalling Theories and also has a practical contribution to tax administrators and authorities, policy makers, regulators such as auditors and shareholders.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews various theories relating to the study, such as agency theory, signalling theory, positive accounting theory, and regulation theory. An overview of the past study on earnings management, tax planning & firm performance is also provided in order to detect the research gap. Moreover, the chapter describes the development of hypotheses that could be tested to establish the relationship between variables. Research methodology for past studies is also reviewed to help the current study in planning the present research's methodology and data analysis technique.

2.2 Relevant Theories for the Study

For a number of years, the manipulative practices of earnings management and tax planning have attracted the most attention in the research field (Persakis & Iatridis, 2016; Sundvik, 2016; Abdulwahed, 2018; Amidu et al., 2019; Rahman & Xiong, 2021; Boachie & Mensah, 2022). Different theories have been in existence to describe the factors that influence an individual's intention and decision to manipulate accounting and tax information. Some of the widely used theories in this area are Agency, Signalling, Positive Accounting, Regulation, Stakeholders and Tax Compliance Theories. These theories have highlighted various factors that motivate firms to manipulate earnings and tax liabilities. Also, in some cases, the literature has acknowledged the existence of theories that have extended the prior theories' work and come up with different

views. The next sub-sections present the frameworks of original and modified theories related to this study's theme.

2.2.1 Theoretical Framework of the Agency Theory

The Agency Theory is one of the main theories which underpins the linkage between earnings management, tax planning and the value of the firm. The theory was initially established by Ross (1973) and later on extended by Jensen and Meckling (1976). It describes the relation between managers and shareholders by stressing the separation of their functions in a firm. In this relationship, managers as agents are hired by shareholders who are referred to as principals. Managers are given the corresponding authority for productive goals and owe a duty to shareholders to maximize profit and shareholders' wealth at their best level (York et al., 2016). Basically, managers are expected to conform to their shareholders' interests.

The dominant view of the managers to align with the best interest of shareholders has fallen into critique. Given the fact that managers are responsible for running the affairs of the firms, they are explicitly required to focus on all constituencies that can bring an impact to the overall firm (Amidu et al., 2019). Thus, a manager's actions should not only pay attention to the interest of shareholders but also meet the purpose of other stakeholders, for instance, the government, debt providers, employees and clients (Amidu et al., 2019).

Consequently, the theory postulates that there should be an alignment between the interest of managers and shareholders. Otherwise, it is argued that when both managers and shareholders are utility maximizers, they will end up in a conflict of interest between them (Abdelwahed,

2018). This is because managers will refuse to take action in line with shareholders and instead will seek alternative methods to achieve their goals (Yorke et al., 2016; Boachie & Mensah, 2022).

Earnings management is the common manipulative method used by managers to benefit themselves when their goals differ significantly from that of the owners (Yorke, 2016; Abdelwahed, 2018; Desai & Dharmapala, 2018). Managers are arguable to have inside information about corporations that shareholders lack knowledge of, which ultimately results in information asymmetry (Ross, 1973). The important information held by managers could influence manipulative behaviours, as they reported to create the opportunity for managers to exercise their personal gains (Alzoubi, 2016). Similarly, Donaldson and Davis (1991) indicated that managers' behaviours of manipulating earnings to meet market expectations do not result in value enhancement but rather damage the firm value.

Tax planning is another alternative method used by self-interest managers to exploit their benefits from an agency problem. Usually, tax planning is expected to enhance the value of the firm. Any company shareholder aims to see the company maximize their wealth through earnings. Therefore, managers' tax planning decisions to increase earnings will receive great support from shareholders. However, due to conflict of interest between agent and principal, managers refuse to undertake tax planning in favour of shareholders. They are only involved in tax avoidance activities when they have an assurance of deriving some private benefit from such engagement (Feng et al., 2019; Brooks & Sun, 2020). Essentially, managers are in a position to

accept the risk associated with tax avoidance activities by only making decisions that earn them personal gains. Ideally, this notion conform assumption supports the agency theory that individuals are selfish and always seek to maximize their personal benefits (Yorke et al., 2016; Abdelwahed, 2018; Amidu et al., 2019; Boachie & Mensah, 2022).

A high level of agency problem demands high-quality monitoring (Ghaleb & Karmadin, 2018). Most importantly, managers' authority must be limited to minimize the agency costs emerging from conflicts of interest between shareholders and them. The opportunistic behaviours of the managers can be restrained through the imposition of control mechanisms such as effective audits (Abdelwahed, 2018).

Effective Audit is argued to be one of the most effective mechanisms to ensure managers adhere to the requirement of the financial report, including the integrity of the reported earnings (Agyei-Mensah, 2019). Likewise, Kovermann and Velte (2019), while reviewing the impact of seven corporate governance factors, including audit on tax avoidance, confirm that effective audit significantly influences corporate taxes whereas it prevents tax avoidance practices. Basically, investors are mentioned to rely mostly on the financial statements audited by big 4 companies than other firms. They are of the opinion that auditors from big 4 companies are less likely to fall into managers' manipulative traps because big 4 firms have strong incentives to maintain their status and reputation (Yimenu & Surur, 2019).

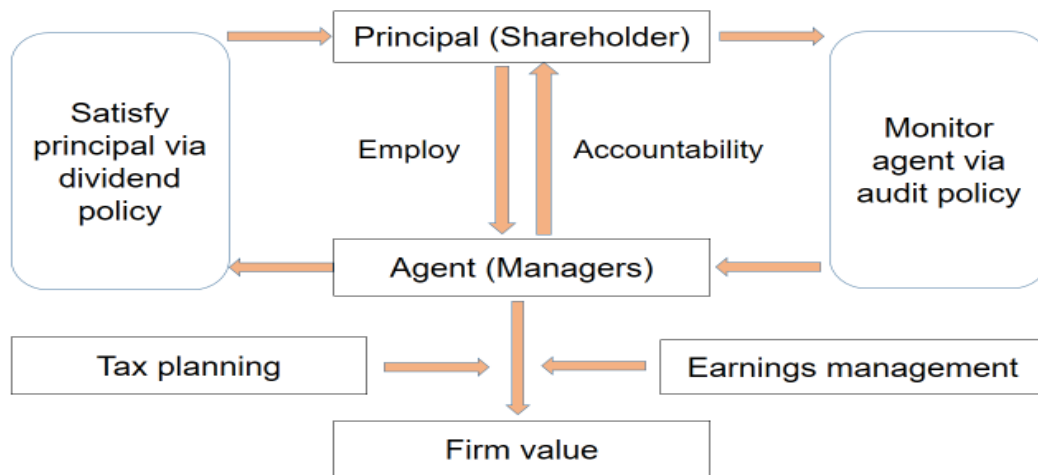
Further to this concern, dividend payment was also argued to reduce the agency problem. Dividend payments usually portray the high quality of earnings, so when managers announce to pay dividends, it means they have aligned with the interest of majority shareholders by generating adequate actual cash flow, which reflects the true economic outlook of the firms (Idris et al., 2015). Khanna and Khanna (2015) posit that investors prefer dividends payment rather than retained earnings for the reason that dividends reduce managers' opportunity to misuse funds for their personal benefits. Similarly, Naeem and Khurram (2019) added that in the firms with bigger agency problems, shareholders rely on dividend policy to solve managers' individualistic behaviours to divert resources away from them to their personal interest through buildings and other privileges. Likewise, Abdelwahed (2018) indicated that firms manipulate earnings upward to meet dividend targets and avoid agency problems. Figure 2.1 Summarize the conceptual framework for the Agency Theory.

While Agency Theory provides valuable insights into the relationship between principals and agents within an organization, it is not without criticisms. When examining the effect of tax planning and earnings management on firm performance with a moderated role of audit quality and dividend policy, Agency Theory has been criticized for overemphasizing self-interest (Zogning, 2017). Agency Theory assumes that managers are primarily motivated by self-interest, leading to opportunistic behavior. However, this assumption may oversimplify the decision-making process and overlook other factors that influence managerial actions, such as ethical considerations, social norms, and long-term organizational goals. Therefore, it is important to

consider alternative motivations and behavioral factors that may influence tax planning, earnings management, and firm performance.

Another major criticism of Agency Theory is the simplistic assumptions of information asymmetry (Zogning, 2017). Agency Theory assumes that information asymmetry exists between principals and agents, with agents having more information. However, this assumption may not hold in all contexts. Regarding audit quality and dividend policy, stakeholders, including shareholders, may have access to relevant information through financial reports, disclosures, and other sources. Therefore, the impact of audit quality and dividend policy as signals may be influenced by the extent of information asymmetry, which should be carefully considered in the study.

Figure 2. 1: Conceptual framework for Agency Theory



Note: Author's own work

2.2.2 Theoretical Framework of The Signalling Theory

Signalling Theory is helpful in describing behaviour when two parties (shareholders and management) have access to different information because of information asymmetry. The management is accused of controlling access to some important information in which they choose what and how to share (or signal) with the shareholders, who in turn may choose how to interpret the signal. Hence, the signalling theory was widely used by scholars to explain the influence of management to control information and provide an indication of signs to shareholders regarding the future prospects and performance of the firm (Yorke et al., 2016; Desai & Dharmapala 2018; Amidu et al., 2019). The Signalling Theory also described voluntary disclosure during financial reporting (Yimenu & Surur, 2019).

The value of the firm depends on investors' perceptions of stock price movements. Investors' perception is said to change when they receive a signal from management about the potential firm's performance in future. According to the signalling theory, accounting figures in financial statements are important tools used to signal market trends. (Abdelwahed, 2018). Due to the presence of information asymmetry, the management uses manipulative practices to demonstrate the firm's unrealistic performance to gain a positive market reaction. Thus, information asymmetry is deemed to guide stock price reactions during the publication of financial reports (Abdelwahed, 2018).

According to Signalling Theory, managers can use tax planning and earnings management to hide the underlying firm's true economic value by displaying impressive or unimpressive information about the firm future performance (Yasar et al., 2020). These manipulative practices

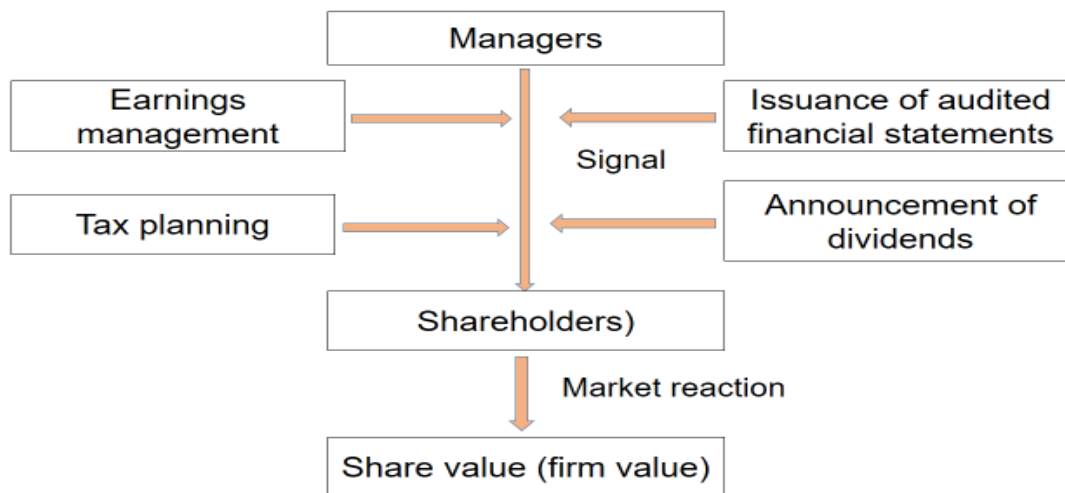
provide an indication to investors that firms are expected to have higher earnings and positive cash flow in the future. Hence, investors will pay attention to firms' reported earnings and stock markets trends because they are concerned about future dividend payments (Lisboa & Kacharava, 2018). Likewise, dividend payment was also argued to signal the markets about the firms' future performance (Khanna & Khanna, 2015). Since managers are unwilling to increase dividends unless they believe it is sustainable, investors, on the other hand, view dividend increases as the signals of management's perception of future performance (Naeem & Khurram, 2019). Hence, shareholders depend on dividends to reduce the information asymmetry problem.

Additionally, the signalling perspective also reveals that stockholders occasionally demand earnings management due to the following reasons. First, they believe that costs of capital can be reduced. Second, it will attract more investors to invest as they will have a good perception of the value of the firm (Yimenu & Surur, 2019). The result of this perspective is that shareholders will benefit from selling shares to the new investors. Managers will also be able to strengthen their relationships with shareholders by helping them achieve their goals. Following Smith and Pennathur's (2017) arguments, an effective signal intends to communicate private information to draw a market response that subsequently enhances firm value. In that sense, the use of upward earnings management is inconsistent with the motivation for Signalling Theory because it deteriorates firm value. Figure 2.2 summarizes the conceptual framework for Signalling Theory.

Although Signalling Theory provides important insights into how firms utilize signals to communicate information to external stakeholders, it is not immune to criticisms (Taj, 2016).

Signalling Theory often focuses on financial signals, such as dividend policy and financial reporting choices, while overlooking other non-financial signals affecting firm performance. In the context of tax planning and earnings management, firms may employ non-financial signals, such as corporate social responsibility initiatives or environmental sustainability practices, to convey information about their performance. The study should consider the broader range of signals firms employ and their potential impact on firm performance.

Figure 2. 2: Conceptual framework for signaling theory



Note: Author's own work

2.2.3 Justification of Using Agency and Signaling Theories as Fundamental Theories

Though the study utilizes the concept of the regulation and positive accounting theories, the Agency Theory and Signalling Theory are the fundamental theories for this study. The study proposes the adoption of Agency and Signalling theories because they underline the conceptual framework of the study.

Agency Theory provides a framework for understanding the cause-and-effect relation between manipulative practice and the value of the firms. The theory appeared to suit all variables of the study because the theory postulate that managers manipulate earnings and tax liability due to agency problem (Amidu et al., 2019). Also, the theory encourages the use of different control and monitoring mechanism to reduce agency problems (Yorke et al., 2016; Abdulwahed, 2018; Abubakar et al., 2021). Precisely, it incorporates the contribution of audit quality and dividend policy as moderating variables of the manipulative practice. If managers primarily utilize manipulative practices for opportunistic purposes, the magnitude of agency conflict will be high. In other words, the extent of manipulative practices is positively related to the gravity of the agency problem (Hooghiemstra et al., 2019). Otherwise, the presence of audit quality and dividend policy will help to reduce agency conflict and maintain beneficiary manipulative practices.

On the other hand, Signalling Theory is also useful for this study because it provides a plausible explanation for the relationship between manipulative practices and the value of the firm. The theory indicates that managers manipulate earnings and tax liabilities in order to attract market response to the firm's share value. Thus, manipulating earnings and tax liabilities will signal excellent future performance that is expected to uplift the company's value.

The general assumption of Signalling Theory is to reduce information asymmetry by sending positive information to the receiver (Mavlanova et al., 2015). Thus, the positive signal will reveal the right economic outlook of the company, which could also be reflected by beneficiary manipulative practice. However, when the signaler intends to falsify the receiver, the false signal

will reveal the opportunistic behaviour of the signaler, which could also be reflected by harmful manipulative practices. Hence, since this study aims to examine both the positive and negative effects of manipulative practices, Signalling Theory is ideal for the study.

On the contrary, other theories, such as positive Accounting Theory, Regulation Theory and Stakeholder Theory, may produce contradictory results since they are not directly related to all variables of the studies. For instance, Regulation Theory manages to provide an explanation of the monitoring mechanism of manipulative practice associated with legally sanctioned those who have been found guilty. Still, it fails to clarify the monitoring mechanism associated with moderated variables such as audit quality and dividend policy. Precisely, one cannot test the impact of audit quality and dividend policy by using Regulation Theory. Likewise, positive accounting theory reveals the motivation behind the manipulation practices that are linked with three incentives: bonus plans, debt covenants, and political influence. However, none of the three incentives relates earnings management with the value of the firm. Dechow and Skinner (2000) have criticized the theory for concentrating more on contractual incentives rather than the influence of the capital market. Also, the theory has been criticized for using a statistical definition of earnings management which is arguable to be less powerfully in detecting earnings management (Dechow & Skinner, 2000).

Furthermore, the Positive Accounting Theory was introduced as an extension of Agency Theory by examining three agency relationships: management and owners, management and creditors, and management and government (Salah, 2019). While the Agency Theory describes the environment that leads to managers' manipulative practices, the positive accounting theory

focuses on the motivation behind the manipulative activities (Salah, 2019). In other words, the positive accounting theory explores the incentives that drive managers to manipulate accounting figures. The theory postulate that firms choose different accounting policies to minimize contracting costs and maximize profit (Salaudeen, 2017). Therefore, the Positive Accounting Theory is within the Agency Theory's scope.

On the other hand, the integration of agency theory and signalling theory also captures the argument behind the Stakeholder's Theory. The Stakeholder's Theory was developed with of aim of organizing the flow of information and designing effective business policy & strategic plans so as to safeguard the interest of all stakeholders (Freeman et al., 2020). The major concern about Stakeholders Theory which has created tension is whether it is a real theory or a merely perspective. And what is an essential argument if it represents a real theory, and whether its primary role is to satisfy the stakeholders or serve them as joint partners (Freeman et al., 2020). Both Agency and Signalling theories well address the tension about the originality and functionality of the theory by postulating the clear argument underlying the theories.

2.3 Review of Relevant Past Studies

2.3.1 Overview of Firm Performance

Over time, studies on firm performance have attracted many scholars' interest, especially during the time of economic crisis due to the presence of global issues such as financial market fluctuations, Brexit, Geopolitical polemic and the Outbreak of global pandemic (i.e. COVID-19). All these times, the world has witnessed an unstable economic situation in many countries that has led to poor performance of some firms (Chukwudi et al., 2020; Novianti & Kuswanto,

2020). Amid the global issues, internal factors such as weakness in firms' corporate governance are also argued to have a significant contribution to the major failures of many firms (Abdulwahed, 2018). Therefore, much of the prior research has focused on examining the impact on firm performance during the period of crisis, and the other stream of research has focused on analysing the relationship between firm performance and corporate governance.

On the other hand, firm performance is described as the overall level of success achieved by the management or team of activities in generating profits or future development and growth of the company (Pernamasari et al., 2020). Given that the main corporate goal of the firm is to maximize the value of the firm, the performance of the firm, which is reflected by the profitability and share performance, has become an essential factor in achieving this goal (Novianti & Kuswanto, 2020). Firm performance is one of the key indicators in determining the performance of share price in the stock market (Rahmawati & Handayani, 2017) as well as assessing the future growth sustainability of the firm (Al-Matari et al., 2014).

Despite the importance of firm performance in assessing the level of business success, many firms report unrealistic performance due to some hidden motives. While some firms are reported to engage in performance manipulation to cover for financial distress (Chytis et al., 2018), others are reported to be involved in those actions for their managers' personal interest (Ftouhi et al., 2015; Chukwudi et al., 2020;). Yet, some firms are reported to manipulate performance to reveal the good news to their stakeholders about the future positive performance of the firm. Those firms are mentioned to involve in beneficially manipulative activities (Sundvik, 2016; Hernawati et al., 2021).

Empirical evidence revealed manipulation of a firm's performance through various methods. Mostafa (2019), using data from 2008 to 2014 documented that firm performance is critical determinants of earnings manipulation in Egypt. He found that low-performance firms engaged more in earnings management than high-performance firms. Managers have also been reported to employ other incomes increasingly strategies such as tax planning to report high performance (Ftouhi et al. 2015). Using panel data from 2001 to 2014 for Nigeria listed firms, Nwaobia and Jayeoba (2016) revealed that tax planning is systematically arranged to enhance firm value and liquidity.

Consequently, a growing body of literature has examined firm performance by utilizing a single method of measurement, either profitability performance or market performance (Yorke et al., 2016; Al-Shattarat 2018; Tarmidi & Murwaningsari, 2019; Novianti & Kuswanto, 2020). Each one of these measurement methods has different implications for firm performance. Profitability performance evaluates short term impact, while market performance analyzes long term impact (Al-Matari et al., 2014). So, in order to have an in-depth evaluation of firm performance, one needs to use both measurement methods (Selvam et al., 2016). As far as the dimension between firm performance and manipulative activities is concerned, the study regarding the manipulation of firm performance has been biased in choosing measuring methods. Thus, in order to bridge this gap, this study utilizes both marketing and profitability measures of firm performance.

2.3.2 Overview of Earnings Management

Managers are said to exercise earnings manipulation via two types of accounting approaches: accounting choices and operations decisions (Anagnostopoulou, & Tsekrekos, 2017). The manipulation of earnings by using accounting choices and estimates is commonly known as accrual-based earnings management (AEM). AEM is exercised through changing the valuation methods, i.e. depreciation method of non-current assets (Adams et al., 2009), or under-estimation of bad debt expenses (McNichols & Wilson, 1988) or delaying write off of assets (Elliot & Shaw 1988). However, AEM is claimed to have an insignificant impact on the firms' future cash flows and thus has a low possibility of damaging the firm's value in the long term (Abdelwahed, 2018).

On the other hand, real earnings management (REM), as the other form of earnings management, is done via operations decisions. It is performed through stock repurchases, reduction of cost per unit and Research & Development (R&D) expenditure (Burnett et al., 2012). Managers engage in REM by repurchasing their own company shares to increase earnings per share, increase production to reduce fixed costs per unit and minimize the R&D costs to reflect low costs of sales. In so doing, they eventually succeed in reporting higher earnings (Abdelwahed, 2018).

Dakhlallh et al. (2020), using data from Jordan firms, documented the association between AEM and REM on firm performance. Their finding reveals that discretionary accruals and abnormal cash flow from operations are negatively and significantly related to Tobin's Q. Thus, firms manipulating discretionary accrual and abnormal cash flow can demonstrate higher performance in the short term. However, in future, they are more likely to report poor performance (Tang et

al., 2015). Hence, the connection between earnings management and firm performance varies depending on the firm management's quality and intention.

Further empirical finding between the manipulation of earnings and firm performance was provided by Cyril et al. (2019). Cyril et al. (2019), while attempting to discover the effect of earnings management on the share price of Nigerian firms. He argued that firms manage discretionary accrual to reveal high performance so as to boost the share price in the market. Sundvik (2016) also reveal that managers tend to take advantage of a favourable valuation in the capital markets by reporting high earnings. The finding was further supported by (Gounopolous & Pham, 2018), who provided evidence that managers manage earnings upwards on the initial public offering to attract investors and achieve higher listing prices.

More evidence on the relationship between earnings management and firm performance reveal both positive and negative effect depending on the situation. Almasarwah (2018) documented a negative relationship between the two since managers like to increase earnings to avoid the uncertainty of the information contents to users and not the true economic value of the firm. Likewise, Sundvik (2016) argued that managers engage in earnings management to enhance the usefulness of financial information and improve the relevance of financial reports. On the other hand, Amidu et al., (2019) indicated that firms choose accounting policies to lower earnings for the tax incentives. Moreover, additional findings revealed that some firms in higher book-tax conformity are in a dilemma of managing earnings upward or downward because managing earnings downwards will help them reduce tax and attract tax authorities to investigate them (Sundvik, 2016).

The connection between earnings management and firm performance is also linked with the achievement of the contractual terms based on the reported earnings. In this context, managers are reported to uplift earnings in order to avoid the violation of contractual agreements, such as debt covenants (Sundvik, 2016). Also, the determinant of executive bonus and compensation contracts is mentioned to depend on earnings performance (Amidu et al., 2019). Similarly, Healy (1985) provided evidence on the behaviour of managers to engage in earnings management for compensation and bonuses incentives. He revealed that since accounting reporting decisions are affected by the terms of bonus contracts, managers are opting to manipulate earnings to have an extra bonus.

2.3.3 Overview of Tax Planning

Prior literature has categorized tax planning into two major components: tax avoidance and tax evasion (Abdul-Wahab, 2014; Yorke et al., 2016). When tax planning is done legally is referred to as tax avoidance. Literature has defined tax avoidance as arranging tax planning activities to legally reduce the tax burden, which positively affects firm performance (Abdul-Wahab, 2014). However, when tax planning is done out of the legal framework (Illegally) is considered to be tax evasion and may negatively impact the firm performance. This is because tax evasion practices expose taxpayers or management to great risk accompanied by heavy penalties and loss of reputation for responsible parties (Yorke et al., 2016).

A growing strand of literature has mentioned many approaches that are more likely to be employed by firms in implementing tax planning behaviours (Burgers & Mosquera, 2017, Thomson & Watrin, 2018, Khaoula & Moez, 2019). The most popular approaches are changes in

income characteristics, income shifting or profit-sharing and involvement in tax-exempt or tax-favoured investment. Since these approaches are popular, some of them may not be useful in the future as they can be easily detected.

Studies on changes in income characteristics resemble the approach with the income-shifting strategy where a company changes the nature of income from domestic income to foreign income (Abdul-Wahab 2014). Through this technique, the company is expected to enjoy benefits provided by double taxation relief (Abdul-Wahab, 2014). Also, companies are reported to use this approach by modifying the nature of revenue from income to capital gain. Abdul-Wahab (2014), revealed that some US companies exploit tax planning by reclassifying the nature of business income to non-business income and then diverting to a low tax or non-tax base to minimize the tax burden.

On the other hand, the income shifting approach, which is also referred to as transfer pricing, is the most discussed issue between tax authorities and Multinational Companies (MNCs). It affects the income interest of both parties (Amidu et al., 2019; Schuster et al., 2021; Brugger & Engebretsen, 2022). As the major interest of tax authorities is to maximize their tax revenue, the key interest of MNCs is to maximize their after-tax profits in order to improve firm performance. Transfer mispricing occurs when a company overcharge/undercharges prices of goods or services against the market price (arm's length price) to an affiliate or related entities (Amidu et al., 2019). Usually, the related entities are located in different tax jurisdictions, one entity in high tax jurisdiction and the other in a low tax jurisdiction (Liu et al., 2018).

There has been much concern about the negative effect of transfer pricing imposed by MNCs on the least developing countries (Amidu et al., 2019). MNCs are reported to locate their foreign affiliates in countries with very low or zero tax rates to exploit transfer pricing benefits in maximizing global profit (Amidu et al., 2019). Hence, they use the loopholes available in the national tax policies to manipulate transfer prices by setting them above or below opportunity cost (Salah, 2019). In this way, the multinational companies succeed in reducing their overall tax liability and enjoy a higher after-tax profit at a group level.

Furthermore, studies have termed Tax-exempt or tax favoured Investment as another approach that firms use to minimize tax liabilities for the purpose of improving firm performance (Abdul Wahab et al., 2018). It occurs when firms take advantage of tax exemptions or tax favourable on investment opportunities. Tax favoured investment was described by Scholes et al. (2005) as the type of investment which is taxed at considerably lighter than a fully taxable bond. Tax favoured investments offer investors several incentives, such as full tax exemption, deductions, and credits. These reliefs are usually provided on items such as real estate, government bonds, annuities etc. Therefore, companies are advised to employ effective tax planning by taking advantage of tax incentives available on an investment opportunity that will subsequently reduce the tax burden and improve firm performance (Abdul-Wahab, 2014).

2.3.4 Overview of the Joint Effect of Tax Planning and Earnings Management

The joint effect of tax planning and earnings management has been given little attention by many researchers (Amidu et al., 2019). Few studies that have investigated the interaction between tax

planning and earnings management have revealed a direct connection between the two (Amidu & Yorke, 2017; Amidu et al., 2019; Neifar, 2019). Accordingly, Amidu et al., (2019) reveal that tax planning practices influence earnings management practices through the tendency of managers to report lower earnings to reduce tax liabilities. They further postulated that managers involve different taxable items such as value allowance and the tax contingency reserves to manage earnings. Similarly, Neifar (2019) affirms that managers manage earnings by using taxable avoidance practices to appropriate rent incomes. Purnamasari (2019) also pointed out that recognising the value of deferred tax expenses provides an opportunity for managers to manipulate earnings.

On the other side, some studies have tried to analyse earnings and tax planning as substitutes for each other (Neifa, 2019, Kaldonski & Jewartowski, 2020). Neifar (2019) reveals the use of tax planning and earnings management as substitutes by manipulating one method to achieve the other. Expressly, he indicated that managers attempt to minimize accounting income to reduce taxable profit. Thus, by doing so, they manage to use earnings management as a substitute for tax planning. Meanwhile, studies also reveal that managers use tax planning and earnings management as complements for each other (Armstrong et al., 2019). This means that managers can use tax planning to manage earnings with the aim of increasing their self-income at the expense of their shareholders (Neifar, 2019). In this case, earnings management and tax planning have been used in a complementary way to reduce shareholders' wealth and increase managers self-interest.

Other studies have linked the interaction between tax planning and earnings management with loopholes in tax laws and financial accounting standards (Kurniasih, Sulardi & Suranta, 2017). This implies that firms operating in tight tax jurisdictions seek a gap in financial reporting standards to undertake a persistent pre-tax profit (Kurniasih et al., 2017). Amidu et al., (2019) also pointed out that firms usually use the flexibilities in tax laws and financial reporting standards to restructure their transaction to create the difference between taxable profit and accounting earnings. Conclusively, based on the agency problem consequences, managers opt to simultaneously utilize earnings management and tax planning to hit two targets at once: impress shareholders by reducing tax expenses and meet their self-interest through earnings management (Amidu & Yorke, 2017).

2.3.5 Overview of the Moderating Variables

2.3.4.1 Overview Audit Quality

The final financial reports, which are published to a wide range of users, are the product of the firms' management and their auditors. Management is responsible for the preparation of financial reports. On the other hand, the audit is accountable for offering an independent and in-depth examination of companies' financial statements that determine whether they `in all material respects` reflect the financial, performance and economic realities of the company and whether they comply with reporting and disclosures requirements of accepted reporting framework such as IFRS (Sitanggang et al., 2020). Thus, the purpose of the audit is to express an opinion as to whether the financial statements reflect the truth and fair view of the business, notwithstanding its size or legal form (Dresdner & Fischer, 2020). This opinion is important to users of financial statements as it provides them with reasonable assurance of fairness and reality of the affairs, the

safety of their investments and the going concern status of the business. Therefore, a high-quality audit ensures that the auditee's financial reports are more useful in reflecting its economic consequences more truthfully and to ensure that financial effects, events, and transactions are properly recognized and disclosed.

Evidently, the efficacy of auditing is measured based on auditors' ability to limit managers' fraudulent behaviour in manipulating earnings and tax liabilities. This is because higher-quality auditors are more likely to identify improper accounting practices (Alzoubi, 2016). In effect, the audit quality is perceived to serve as a proxy for earnings quality, as auditors with higher quality can provide a higher level of audit assurance as to the fair presentation of financial statements. Hence, accounting numbers audited by higher quality auditors will be closer to the true economic value, and reported earnings will be more informatively reflected in the earnings response coefficient. Consistently, Sitanggang et al. (2020) suggest that high audit quality is more likely to restrain opportunistic practice on financial statements and help investors to make a more accurate estimate of the firm's value. That means audit quality has a positive correlation with the quality of financial reporting.

Prior studies on the association between measures of earning quality and auditor industry specialization indicate that specialist auditors have lower Discretionary accrual and higher ERC than clients of non-specialist auditors (Audousset-Couler et al., 2016; Alzoubi, 2016). Houqe et al. (2017), using a large sample of 7,303 firms from Indian listed companies between 1998 and 2009, have indicated that a low degree of earnings management for firms which are audited by

high-quality auditors. Similarly, to the finding of Sitanggang et al. (2020), who indicated that high audit quality measured by audit fees is significant and negatively correlated with abnormal operating cash flow.

Further evidence was documented by, Tarmidi and Murwaningsari (2019), who highlighted that firms which are audited by high-quality auditors are commonly observed to exhibit lower levels of discretionary accruals as a proxy of high earnings quality. The result confirms the findings by (Waweru & Ntui 2018; Abubakar et al., 2021), who supported that audit quality determines the value relevance of earnings and book value. In the context of this contradictory empirical evidence, there is room for this study to investigate the impact of audit quality on earnings management (measured by Discretionary Accruals), especially in developing capital markets.

2.3.4.2 Overview of Dividend Policy

It is well known that managers are in favour of retaining earnings instead of paying them out as dividends. And if they decided to pay, they would prefer to maintain constant dividend levels and dividend pay-out ratios (Liu, 2011). The reason is that paying out dividends seems to restrain managers' opportunity to use the fund for their personal plans (He et al., 2017). For one reason or another, the dividend is paid through the earnings that management plans to use for other activities (Ahmed et al., 2018). In light of the above concern and because of the agency problem, managers are expected to be reluctant to manipulate earnings upwards for fear of paying out a high dividend to shareholders. Notably, this is also consistent with the prediction that managers dislike paying dividends due to agency problems. However, the payment of a dividend is

questioned about being effective in preventing manipulative practices because managers are more likely to use dividend policy as a cover to hide their fraudulent conduct (He et al., 2017).

Dividend policy is arguable to be one of the contentious decisions managers make (Ahmed et al., 2018). He et al., (2017) pointed out that managers often find themselves in a dilemma to announcing dividend payments when there is an exponential increase in profit. The plausible explanation for this is that managers prefer to spend money on other plans rather than pay investors. Mostly important, before making a dividend decision, managers must consider several factors. Some of these factors are earnings sustainability, management strength and future productivity of the firm (Ahmed et al., 2018). Dividend policy is also strongly associated with investor protection (Athari et al., 2016). Empirical evidence shows a negative relation between dividend policy and earnings management in countries with weak investor protection (He et al., 2017). That means firms in countries characterized by weaker investor protection are more involved in earnings manipulations than those with strong investor protection.

On the other hand, firms are mentioned to establish a credible reputation by employing dividend policies with fewer earnings manipulation, which can mitigate agency problems and help them solicit external funds through the capital market (He et al., 2017). Pathak and Ranajee (2018) support this argument by positing that dividend policy associated with effective governance limits managers' incentives to over retain cash for their personal benefits. Dividend policy is also deemed to provide managers and shareholders with the same level of benefits without incurring the unnecessary cost associated with corporate tax avoidance (McClure et al., 2017). This is the

plausible assumption given that shareholder enjoys tax relief available from the payment of dividend with the tax credit, which is also likely to reduce incentives for tax avoidance (McClure et al., 2017). Such finding is also in line with the argument asserted earlier that managers choose to pay out earnings as dividends to eradicate agency conflicts. Thus, dividend policy is considered to play an essential role in moderating the impact of manipulative practices in the company.

2.3.6 Overview of Control Variables

2.3.5.1 Firm Size

The firm size determines the ability of the companies to decide their future performance (Birjandi et al., 2015). In other words, the managers' behaviours to engage in manipulative practices vary depending on the size of the firm. Literature has noted that managers from small firms tend to be more involved in earnings management and tax planning than those from large firms (Alzoubi, 2016). In large firms, managers, as opposed to small firms' managers, have little chance of getting involved in manipulative activities due to close monitoring placed on them by regulators (Abdelwahed, 2018).

On the contrary, due to the presence of information asymmetry, large firms are more likely to engage in manipulative practices for other motives, such as meeting earnings targets (Abdelwahed, 2018). Large firms' managers are reported to have higher information asymmetry, which might influence them to engage in earnings management and tax planning for their personal benefit (Amidu et al., 2019). Larger firms are also more exposed to public scrutiny and political interference than small firms (Hassan et al., 2019). Thus, larger companies could be

motivated to be involved in manipulative practices by exploiting their political influence; while doing so, they might also face close attention from public scrutiny.

On the other hand, firm size is considered to be the perfect determinant of firm performance. However, prior studies have shown the existence of a negative relationship between firm size and firm value (Lestari & Wardhani, 2015). The plausible explanation has been that firm size is more sensitive to the value of assets, and usually, firms with a high value of assets are deemed to be in their maturity and declining stage of the life cycle (Pratama, 2018).

Furthermore, firm size is directly linked to high operations and monitoring costs, which might decrease the firm value in one way or another (Pratama, 2018). Conversely, a larger firm size is also associated with high firm value because companies with higher total assets are presumed to have more resources that can be utilized for expansion activities of firms and thus increasing firm performance (Koanantachai, 2013). Based on the above findings, firm size is extensively related to firm performance. Therefore, to avoid mechanical correlation with firm performance, which is the study's dependent variable, firm size needs to be controlled.

2.3.5.2 Firm Leverage

The use of leverage can act as a regulatory and monitoring mechanism to reduce manipulative practice because firms which rely on debt financing have greater financial obligations to settle (Amidu et al., 2019). So, financial obligations reduce the availability of free cash flow to managers for their personal use (Yorke et al., 2016). Anagnostopoulou & Tsekrekos (2017) posit that firms which maintain a high degree of financial leverage are less likely to engage in earnings

manipulation because of the substantial control and security measures imposed by loan providers.

On the contrary, Abdelwahed (2018) has revealed that firms use financial leverage to manipulate earnings upward to monitor debts' terms and conditions. Earnings management is mostly used by firms with higher leverage when they want to default on their debts obligation without violating contracts (Anagnostopoulou & Tsekrekos, 2017). Thus, high leverage firms that engage in manipulative practices would expose themselves to liquidation risk if they fail to generate adequate cash flow to meet their financial obligation (Razali et al., 2018).

Leverage is also linked with tax planning because firms aim to receive a higher interest shield on debt financing (Yimbila, 2017). Previous studies documented mixed findings on the relation between financial leverage and tax planning. For instance, Yimbila (2017) revealed a positive correlation between tax planning and the level of leverage. He supports that firms plan tax for the purpose of reducing financing costs through interest shields. On the other hand, Suyono (2017) documented a negative correlation between the two.

A previous study has noted a negative relation between leverage and firm value. Firms with higher leverage are proclaimed to have higher finance costs, which reduce their competitiveness in the market and expose them to a risk of losing revenue in the future (Ansari & Riasi as cited in Alduneibat et al., 2017). Otman (2016) highlighted that the higher leverage level of the firm is associated with poor corporate management, which turns out to be poor firm performance. More evidence of the negative correlation between leverage and firm value was provided by Jiang, Habib and Wang (2016); Pratama (2018); Brooks and Sun (2020). Since it is plausible that

leverage has a close relationship with firm performance, it is particularly important to control the factor of leverage for the firm's performance.

2.3.5.3 Firms Growth Opportunity

Alzoubi, (2016), Abdulwaheb, (2018), Khuong et al. (2020) posit that firm growth opportunity plays a vital role in earnings management and tax planning. They reveal that firms with high growth engage more in manipulation practices than firms with a low growth rate. The plausible reason for that is that firms with high growth rates seem reluctant to accrue losses. As a result, they suffer from a high level of accruals which eventually drive them to manage earnings. On the other hand, An et al. (2016); Anagnostopoulou and Tsekrekos (2017) revealed a negative correlation between firm growth and manipulation practices. They argued that low growth firms face higher financial distress than high growth firms. As a result, low growth firms are inevitably involved in manipulating earnings and tax liability.

On the other hand, firm growth opportunity plays an essential role in influencing firm performance. The influence of growth opportunity on firm performance can be seen when the firm is utilizing its resources in profitable investment (Abdullah et al., 2017). In other words, growth opportunities positively impact the firm value when the opportunities are well utilized and yield positive returns. However, when growth opportunity is poorly utilized, for instance, in unprofitable investment or for personal benefit, growth opportunity will negatively affect firm value (Abdullah et al., 2017).

A firm's growth opportunity is also mentioned to be unpredictable, and thus its relationship with firm performance is nonlinear (Khuong, et al., 2020). This may arise due to the occasional

presence of non-correlation between determinant variables of the firm growth opportunities and the firm performance. For instance, growth in sales may not necessarily result in the growth of profit. Therefore, in light of the above inconsistency relationship, the firm growth opportunity is used as a control variable.

2.4 Summary of the Past Studies

Table 2. 1: Summary of Relevant Past Studies

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--|--|---|--|--|
| Idris Ibrahim, Hussain Bala and Jamila Garba (2015) Nigeria | <p>Independent Variable (Earnings Management)</p> <ul style="list-style-type: none"> ➤ Discretionary Accruals <p>Dependent Variable (Dividend Policy)</p> <ul style="list-style-type: none"> ➤ Dividend Pay-out, <p>Control Variables</p> <ul style="list-style-type: none"> ➤ Leverage ➤ Firm Size | <p>Cross-sectional data of 86 listed non-financial companies in 2014. Using modified Jones Models and other regression models</p> | Signalling Theory | Earnings management does not in any way affect dividend payment. Rather managers have other reasons for managing accruals |
| Appolos Nwaobia and Olajumoke Jayeoba (2016) Nigeria | <p>Independent Variable (Tax Planning)</p> <ul style="list-style-type: none"> ➤ Effective tax rate, ➤ Capital intensity, ➤ Thin capitalization, ➤ lease Option, ➤ Industry sector incentives, <p>Dependent Variable (Firm liquidity)</p> <ul style="list-style-type: none"> ➤ Current ratio <p>Control Variable</p> <ul style="list-style-type: none"> ➤ Firm Size | Panel data from 2001 to 2014 using a regression model | Stakeholder Theory and Tax Planning Theory | Tax planning needs to be systematically arranged in order to have an effect on firm liquidity as well as firm value |
| Dennis Sundvik (2017) Sweden | <p>Independent Variable (Tax Planning)</p> <ul style="list-style-type: none"> ➤ Book Tax Conformity <p>Dependent Variable (Earnings Management)</p> <ul style="list-style-type: none"> ➤ Discretionary Accruals / | Panel Data from 2004 to 2013 using Variation of Jones model (1991) and OLS models | Agency Theory | Firms are more involved in tax planning during a high tax rate period than in a low tax rate period. This has resulted in high book-tax conformity during the high tax rate period. Also, the behaviour of |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--|--|---|---------------|---|
| | Unexpected specific Accruals Control variables ➤ ROA | | | manipulating earnings downward prior to the income tax reform was observed to be pervasive over time. |
| Ebraheem S.S. Alzoubi (2016) Jordan | Independent Variable (Audit Quality) ➤ Audit fees ➤ Big 4 and Non-Big 4 Dependent Variable (Earnings Management) ➤ Discretionary Accruals Control variables ➤ Board Independence ➤ CEO Duality ➤ Board Size ➤ AC Independence ➤ AC Financial members ➤ Firm Size ➤ CFO ➤ Firm Growth ➤ Leverage | Panel Data from 2007 to 2010 using Modified Jones Model (1995) and Generalised Least Square Regression | Agency Theory | There is a significantly negative association between Audit Quality and earnings management. The finding revealed that the significance of earnings management is low for firms which have hired independent Auditors. It is even less for firms with big four audit firms compared to the firm with non-big four audit firms |
| Sally M. Yorke, Mohammed Amidu, and Cletus Agyemin-Boateng (2016) Ghana | Independent Variable (Earnings Management and Tax Planning) ➤ Discretionary Accruals, Effective Tax Rate Dependent Variable ➤ Tobin Q, Control variables ➤ ROI ➤ Government Index ➤ Leverage ➤ Sales Growth ➤ CFO | Panel Data from 2003 to 2013 using modified Jones model (1995) and other regression models | Agency Theory | Increase trend of earnings management (EM) in Ghana. Also, managers used tax planning to manage earnings. Despite the positive effect of tax planning (TP) on firm value, the combining effect of TP and EM has a negative effect on FV |
| Quang Viet Vu, Charles W. Duvai, Will Quilliam and Noema Santos (2016) | Independent Variable ➤ (Earnings Management and Book Tax Difference) ➤ Book tax total earnings management, | Panel Data from 1999 to 2010 using new measurement models involved regressing book-tax earnings management and other regression | Agency Theory | Develop new measurements that measure earnings management directly from book tax differences and provide evidence that firms manipulate share prices because investors |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--|--|---|---|---|
| | Abnormal Accruals and Accruals Quality ➤ Book Tax Difference Dependent Variable ➤ Tobin Q, ➤ ROA Control Variable ➤ Profitability ➤ Firm Size ➤ Leverage ➤ Dividend ➤ Sales ➤ Capital Expenditure | models | | do not promptly react to EM accruals. |
| Chris Jones, Yama Temouri and Alex Cobham (2017) Cross Countries EU, US, UK, ASIA | Independent Variable (Audit Quality) ➤ Big four accounting firms, Dependent Variable ➤ Number of Tax haven subsidiaries, Control variables ➤ Firm size ➤ Firm Age | Panel data from 2005 to 2013 using regression models | Internationalization Theory | Existence of significant correlation between Public policy related to the role of auditors and the tax avoidance behaviours of MNEs |
| Dewi K. Sari, Sidharta Utama and Hilda Rossieta (2017) Indonesia | Independent variables ➤ Tax avoidance is measured by the effective tax rate, Mediated Variables ➤ Related party transactions, Dependent Variable (Dividend Policy) ➤ Dividend Pay-out ratio Control Variables ➤ ROA ➤ Firm Size ➤ Leverage ➤ Big 4 ➤ Firm Growth | Panel data from 2011 and 2014 using regression models | Agency Theory | Tax avoidance reduces the company dividend pay-out rate mediated by related part transactions |
| Abdul-Wahab N, Ntim C, Adnan M and Ling T (2018) Malaysia | Independent Variables ➤ Directors' Age, ➤ Directors' Tenure, ➤ Directors' educational | Panel data from 2008 to 2015 using regression models | Psychologically and Socially Inspired-upper echelons Theory | A significant negative relationship exists between a firm Book Tax Difference (BTD) level and Top Management |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|---|--|---|--|--|
| | background, ➤ Directors' gender Dependent Variable ➤ Book Tax Difference, Control Variables ➤ Age ➤ Tenure ➤ Education ➤ Gender ➤ Earnings Management ➤ Audit Quality ➤ Leverage | | | Team (TMT) age and tenure heterogeneities. Also, there is a positive relationship between the BTD level and TMT education heterogeneity |
| Basiem Al-Shattarat, Khaled Hussainey and Wasim Al-Shattarat (2018) UK | Independent Variables (Real Earnings Mgt) ➤ Abnormal level of Cashflow from operations, abnormal discretionary expenses, ➤ abnormal production cost, Dependent Variables (Firm Performance) ➤ ROA ➤ ROE | Panel data from 2009 to 2015 using Roychowdhury's (2006) models and Pooled Ordinary Least Square Regression | Signalling Theory and Agency Theory | UK firms manipulate their sales, production cost and discretionary expenses to meet their earnings target and future operating performance. So, firms manage to convey a signal to the markets through real earnings management. |
| Ghada Abdelwahed (2018) UK and US | Independent Variables ➤ CEO compensation, ➤ Audit Quality, ➤ Managerial Ownership, ➤ Institutional ownership, ➤ Concentrated Ownership ➤ Cash holding Dependent Variable (Earnings Management) ➤ Discretionary Accruals, Control Variables ➤ Financial Leverage ➤ Firm Size ➤ Profitability ➤ Firm Growth | Panel Data from 2004 to 2016 using Multiple Regression Model | Agency Theory, Entrenchment Theory, Signaling Theory, Stewardship Theory and Stakeholders Theory | In low cash holding firms, Audit Quality and CEO compensation were revealed to have a significant impact in restraining earnings management in UK and US; however they fail to reduce managerial opportunism in both US and UK for the high Cash holding firms |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--|--|--|-------------------------------------|---|
| | <ul style="list-style-type: none"> ➤ Opportunity ➤ Cash flow ➤ Firm Loss | | | |
| Ines Lisboa and Aleksandre Kacharava (2018) Portugal and UK | <p>Independent variables</p> <ul style="list-style-type: none"> ➤ Return on Assets ➤ Firm size, ➤ Firm growth, ➤ Leverage ➤ Net profit <p>Dependent Variable (Earnings Management)</p> <ul style="list-style-type: none"> ➤ Discretionary Accruals, | Panel data from 2004 to 2014 using regression models | Regulation Theory | Firm size and indebt are relevant characteristics to explain earnings management |
| Jesper Haga, Henrik Hoglund and Dennis Sundvik (2018) UK | <p>Independent Variables</p> <ul style="list-style-type: none"> ➤ Public Firms ➤ Private Firms <p>Dependent Variable (REM, AEM, TEM)</p> <ul style="list-style-type: none"> ➤ Sales Manipulation, ➤ Managing discretionary expenses, ➤ abnormal production, Discretional ➤ Accrual cross-sectionally <p>Control variables</p> <ul style="list-style-type: none"> ➤ Firm Size ➤ Firm Growth ➤ ROA | Panel data from 2006 to 2014 using the Roychowdhury model (2006) and regression models | Signalling Theory and Agency Theory | Firms manage earnings due to capital market pressure and ownership characteristics. Real earnings management has a stronger impact on public firms than on private firms |
| Matrin Thomsen and Christoph Watrin (2018) Europe and US | <p>Independent Variables</p> <ul style="list-style-type: none"> ➤ Firms Fiscal Year ➤ The difference in time trend between EU and US firms <p>Dependent Variable (Tax Avoidance)</p> <ul style="list-style-type: none"> ➤ Effective tax rate, ➤ Difference between effective tax rate and statutory tax rate, ➤ Cash effective tax rate Current | Panel Data from 2005 to 2016 using OLS regression models | Agency Theory | The gap between statutory tax rate (STR) and effective tax rate (ETR) decreased over time for European Firms. This implies that tax avoidance practices are decreasing over time in Europe. However, US firms have reported a large gap between STR and ETR |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|---|---|--|--|--|
| | <p>effective tax rate</p> <p>Control Variable</p> <ul style="list-style-type: none"> ➤ ROA ➤ Leverage ➤ R&D ➤ PPE ➤ Firm Size ➤ Capital Expenditure | | | |
| Nelson M Waweru and Ponsian Ntui (2018) Kenya and Tanzania | <p>Independent Variables (Corporate Governance)</p> <ul style="list-style-type: none"> ➤ Audit Quality, ➤ Board independence, ➤ Board Gender diversity, ➤ Director share ownership <p>Dependent Variable (Accrual Earnings Management)</p> <ul style="list-style-type: none"> ➤ Discretionary Accruals, <p>Control Variables</p> <ul style="list-style-type: none"> ➤ Audit Committee ➤ Ownership concentration ➤ Cash Flow ➤ Firm Size ➤ Leverage | Panel Data from 2005 to 2014 using Modified Jones Model (1995) and Regression Models | Agency Theory | Audit Quality and Audit Committee are negative and significantly related to earnings management |
| Rajesh Pathak and Ranajee (2018) India | <p>Independent Variable (Earnings Quality)</p> <ul style="list-style-type: none"> ➤ Discretionary Accruals, <p>Dependent Variable</p> <ul style="list-style-type: none"> ➤ Dividend Yield, <p>Control variables</p> <ul style="list-style-type: none"> ➤ Firm Size ➤ Cash Flow ➤ P/B ratio ➤ P/E ➤ Systematic risk | Panel data from 2006 to 2016 using the Modified Jones model (1995) and other regression models | Agency Theory and Signaling Theory | Better earnings Quality take into account the free cash flow problem and reduce agency and information asymmetry cost, thereby stimulating dividend policy |
| Sasiska Rani, Didik Susetyo and Luk Fuadah (2018) Indonesia | <p>Independent Variables (Corporate characteristics)</p> <ul style="list-style-type: none"> ➤ Profitability ➤ Firm size ➤ Leverage | Panel Data from 2012 to 2016 regression with random effect model | Agency Theory and Positive Accounting Theory | Company Characteristics comprising of profitability and firm size indicate a significant adverse effect on tax avoidance, whereas Financial leverage has a |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--|---|---|-----------------------------|--|
| | <p>Dependent Variable (Tax Avoidance)</p> <ul style="list-style-type: none"> ➤ Effective tax rate, <p>Moderated Variable</p> <ul style="list-style-type: none"> ➤ Earnings Management | | | positive effect on tax avoidance |
| Deden Tarmidi and Ety Murwaningsari (2019) Indonesia | <p>Independent Variables (Earnings Management and Tax Planning)</p> <ul style="list-style-type: none"> ➤ Effective Tax Rate, Discretionary Accruals <p>Dependent Variable (Firm Value)</p> <ul style="list-style-type: none"> ➤ Tobin Q <p>Moderated variables</p> <ul style="list-style-type: none"> ➤ Audit Quality | Panel data from 2013 to 2017 using multiple regression and moderation analysis | Agency and Signaling Theory | Earnings management and tax planning have a positive influence on firm value. Audit quality manages to reduce the impact of earnings management but not tax planning |
| Jost Kovermann and Martin Wendt (2019) German | <p>Independent Variables</p> <ul style="list-style-type: none"> ➤ Family firm involvement <p>Dependent Variable (Tax Avoidance)</p> <ul style="list-style-type: none"> ➤ Current effective tax rate, <p>Control Variables</p> <ul style="list-style-type: none"> ➤ PPE ➤ Firm Age ➤ Firm Size ➤ Profitability ➤ Debt Interest | Panel data from 2010 to 2014 using regression models | Agency Theory | Tax avoidance increase with the percentage degree of family ownership. Also, Family shareholders increase demand for dividends by avoiding taxes |
| Mohammed Amidu, William Coffie and Philomina Acquah (2019) Ghana | <p>Independent Variables</p> <ul style="list-style-type: none"> ➤ Transfer pricing, ➤ Discretionary Accruals <p>Dependent Variable</p> <ul style="list-style-type: none"> ➤ Tax avoidance, <p>Control Variables</p> <ul style="list-style-type: none"> ➤ Firm Size ➤ Leverage ➤ ROA ➤ Growth Potential ➤ Asset Tangibility ➤ Firm Liquidity ➤ Firm Age | Panel data from 2008 to 2015 using modified Jones Model and other Regression models | Agency Theory | Firms engage in tax planning strategies and manipulation of earnings to reduce the tax burden |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|---|--|--|---|--|
| Mohamed Asiri, Ahmed Al-Hadi, Grantley Taylor and Lien Duong (2020) US | Independent Variables (Tax Avoidance) <ul style="list-style-type: none"> ➤ Effective tax rate Dependent Variable (Investment efficiency) <ul style="list-style-type: none"> ➤ Real Investment ➤ Predictable Investment Mediated Variables <ul style="list-style-type: none"> ➤ Financial statement obscurity ➤ Financial statement Comparability ➤ Product market competition Control Variable <ul style="list-style-type: none"> ➤ Firm Size ➤ Dividend ➤ Tangible ➤ CFO sale | Panel Data from 1993 to 2016 Using propensity score matching (PSM), the difference in difference (DID) and two-stage least squares (2SLS) regression analyses | Resource-Based Theory Information Based Theory Pecking Order Theory | Findings indicate a adverse relation between tax avoidance and Investment efficiency. Moreover, they found that the quality of the financial statement mediates the relationship |
| Rahman, J and Xiong, N (2021) | Independent Variables (Real Earnings Management) <ul style="list-style-type: none"> ➤ Abnormal Operating Cash Flows Dependent Variable (Firm Performance) <ul style="list-style-type: none"> ➤ ROA ➤ ROE Control Variable <ul style="list-style-type: none"> ➤ Firm Size ➤ Financial Strength ➤ Growth ➤ Industry ➤ Year Dummies Variables | Panel Data from 1998 to 2016 Using multiple regression analysis | Agency Theory | Findings reveal negative relationship between real earning management through manipulation of sales and Firm performance |
| Boachie, C and Mensah, E (2022) | Independent Variables (Earnings Management) <ul style="list-style-type: none"> ➤ Discretionary Accruals Dependent Variable (Firm performance) <ul style="list-style-type: none"> ➤ ROA Moderated Variables (Corporate Governance Quality) <ul style="list-style-type: none"> ➤ Firm level | Panel Data drawn from Anglophone countries drawn from sub- saharan Africa from 2007 to 2019 First Order Autoregressive [AR (1)] panel models | Agency Theory | Findings indicate that earnings management has positive effect on firm performance. Also corporate governance quality manage to moderate the impact earnings management by enhancing firm performance. |

| Author and Country | Variables Used | Types of Data and Methodology Used | Theory Used | Finding and Results |
|--------------------|---|------------------------------------|-------------|---------------------|
| | disclosure ➤ Best practice Control Variable ➤ Firm Size ➤ Leverage ➤ Growth ➤ Age ➤ IFRS ➤ Asset Tangability | | | |

2.5 Research Gap in The Literature and Its Significance

A comprehensive set of literature was given on accrual-based earnings management (Alzoubi, 2016; Yorke et al., 2016; Abdelwahed, 2018; Lisboa & Kacharave, 2018; Pathak & Ranajee, 2018; Waweru & Ntui, 2018; Tarmid & Murwaningsari, 2019) but little attention was given to real earnings management (Al-Shattarat et al., 2018; Haga et al., 2018). Nevertheless, the studies that have linked the association of AEM and REM in influencing the firm performance are few. Most of the prior studies have investigated the impact of REM and AEM in isolation (Haga et al., 2018; Li, 2019; Sitanggang et al., 2020). According to the finding given by Dakhllalh et al. (2020), the reported earnings are an outcome of accounting decisions and fundamental firm activities related to AEM and REM. Therefore, it is imperative that more research be directed to investigate further the significance of linking or substituting the two variables as applied by managers (Dakhllalh et al., 2020). Therefore, it is important to address this gap, particularly in developing countries where firms are still growing. This study thus focuses on investigating the impact of simultaneously uses of AEM and REM and their tradeoff in East African listed companies.

Accordingly, Yorke et al. (2016) revealed that corporate tax planning practices allow self-interest managers to practice earnings management behaviours. In other words, the incentives for tax planning can automatically raise the motivation for earnings management. In light of the finding above, there is an unforeseen significant joint association between tax planning and earnings management in which one variable can be applied as a function of another variable. Therefore, apart from using each of mentioned proxies for tax planning and earnings management, this research examines the impact of the interactions between two variables on the firm performance. In line with Yorke et al., (2016), the study introduces an interaction proxy between tax planning variables and earnings management in the regression model.

Literature has also paid little attention to the moderated impact of dividend policy. A scant number of studies have shown the relationship between dividend manipulative practice influencing firm performance (Bala & Garba, 2015; Pathak & Ranajee, 2018). On the other hand, literature has acknowledged the existence of a direct association between dividend policy and investor protection (Charfeddine et al., 2013). Accordingly, the level of investor protection is comparatively higher with the firms paying a higher dividend than firms paying a low dividend policy (Charfeddine et al., 2013). Hence the presence of a dividend policy will restrain managers from harmful manipulative practices and magnify level of investor protection (La Port et al., 2000; Athari et al., 2016). Thus, based on the above finding, this study utilizes dividend policy as moderated variable in analyzing the effect of earnings management and tax planning on firm performance.

In addition, past studies have shown there is a significant impact on audit quality as a function of corporate governance mechanisms imposed to minimize manipulative practices (Alzoubi, 2016; Abdelwahed, 2018; Lestari, 2019). However, most of these studies have focused on exploring the impact of audit quality on earnings management but pay little attention to tax aggressiveness. Furthermore, research on audit qualities and their effect on the relationship between manipulative practice and firm performance has yet to receive adequate empirical attention to the best of my knowledge. Notably, most prior studies have been limited in measuring audit quality without considering the effect of essential variables such as auditor independence, tenure and firm size (Alzoubi, 2016; Kouib & Almulhim, 2019). Therefore, this study focuses explicitly on the moderated function of audit quality. It extends the research area in line with Kouib and Almulhim (2019) by proxying audit quality using natural logarithm of audit fees and then checking the robustness of the result by using dummy variables of big 4s and non-big 4s auditing firms. The study also provides new evidence of a moderated role of audit quality in the relation between tax aggressiveness and firm value in developing countries.

Furthermore, studies investigating the manipulation effect of tax and earnings on firm performance are mostly limited to data from developed countries. Acknowledging possible differences with developing countries, such as cultural, institutional, economic and legal differences, is among the determinant factors of the association between manipulative practices and firm performance (Enomoto et al., 2015; Almarayeh et al., 2020).

Consequently, the magnitude of manipulative practices can be presumed to differ according to country-level factors (Almarayeh et al., 2020). For example, the efficacy of investor protection,

economic and institutional context in developing countries differs from those in developed countries, hence increasing the likelihood of dissimilar findings. East African countries are characterized by factors such as weak investor protection, low level of economic growth, and weak legal framework, which are considered effective in influencing manipulative practice. Therefore, this study focuses on data from East Africa to try and establish evidence of the effect of tax planning and earnings management on firm performance with the moderated role of audit quality and dividend policy.

2.6 Conceptual Framework

This study is designed to examine the positive or negative impact of earnings management and tax planning on a firm's performance within the East African Community. According to the Agency Theory, tax planning and earnings management are expected to have negative or positive effects on the value of the firms. A negative effect occurs when managers manipulate financial information for their personal interest rather than the overall interest of the firm (Abdelwahed, 2018). Accordingly, the Agency Theory tests the impact of earnings management on firm performance in which firms with high (low) agency costs have lower (higher) firm value (Yorke, 2016). The theory posits that when managers manipulate earnings in firms with severe agency costs will lead to a higher degree of earnings management. This means the extent of earnings manipulation is positively associated with the magnitude of agency conflicts (Yorke, 2016). In reality, earnings management provides misleading information that ultimately leads to a conflict of interest.

Agency Theory also has a perspective view of tax planning. It suggests that tax planning can be multifaceted and opaque, possibly allowing for managerial opportunism (Almasarwah, 2016), while focusing on the interaction of tax planning activities and agency problems in public firms, they argue that tax planning activities can create advocacy for managers' opportunistic behaviours. They further hypothesized that direct distortion and complex forms of earnings manipulation could be facilitated when managers carry out tax avoidance activities. They believe that tax planning directly impacts the corporate profits and value of the firms for firms with strong institutions. Whereas for firms with weak administrative institutions, tax planning increases opportunities for manipulative practices.

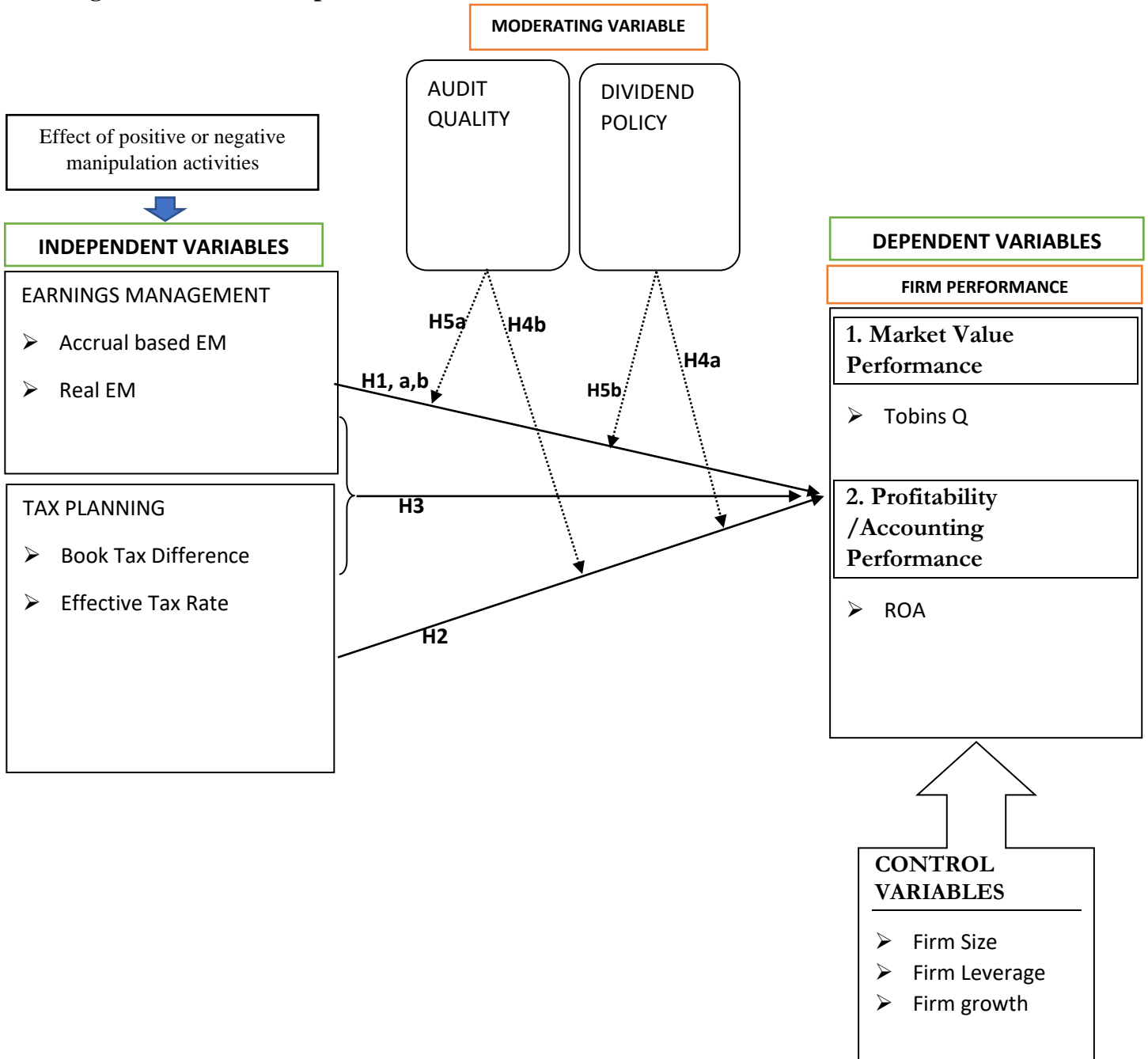
On the other hand, earnings management and tax planning are informed to have a positive effect on the value of firms when they are purposely done for the overall benefit of the firms (Abubakar, 2021). This happens when owners' conflict goals align with managers (Almasarwah 2016). However, this can only be achieved when managers' misconduct behaviours are closely monitored and controlled by shareholders. As further noted from the regulation theory, managers hesitate to be involved in manipulative practices when there are strong measures against their fraudulent behaviours (Roychowdury, 2006). This means in fear of disciplinary actions, managers will comply with positive accounting theory by choosing to engage in earnings management and tax planning practices that are necessary for enhancing the financial information quality and firms' values.

Audit quality and dividend policy as moderating factors have an essential role in resolving agency, and information asymmetry problems as well as complying with regulation theory by

ensuring negative, manipulative activities are eliminated. Effective Audit and dividend policy help to control managers from exercising harmful earnings manipulation, and therefore it helps restore shareholders' confidence in the financial information. Hence examining the moderating role of audit quality and dividend policy will help to reveal the effectiveness of managers' control and monitoring mechanism against manipulative practices and also the impact of moderation effect on the value of the firm.

The conceptual study framework is illustrated in figure 2.3 below, which indicates the proposed study variables and their relationship in a network of nodes that describe the type of relationship between them (i.e. dependent, independent, and moderating (intervening) variables). The study has adopted tax planning and earnings management (AEM and REM) as independent variables, whereas firm performance (market value and accounting/profitability) is the dependent variable. Dividend policy and audit quality will be used as moderating variables on the impact of manipulation activities in East African Countries. The study will also utilize firm size, firm leverage, and firm growth opportunizing as the controlling variable of the firm performance. The figure shows that the association between tax planning and firm performance, as well as earnings management and firm performance, are moderated by dividend policy and audit quality.

Figure 2. 3: The Conceptual Model



Note: Author’s own work

2.7 Hypothesis Development

Hypotheses of this study comprise a proposition about variables that describe the relationship between tax planning, earnings management, and the firms' value. Also, the hypotheses test the relationship between moderated variables and manipulative practices. Based on arguments and assumptions postulated in the prior research; this study will develop hypotheses which test the relationship between the following variables.

2.7.1 Earnings Management and Value of The Firm

One of the major determinants of firm value is the performance of share value in the market, which is also closely related to investors' perception (Tarmidi & Murwaningsar, 2019). According to Signalling Theory, investors' perceptions are largely driven by earnings reported in the published financial statements as indications of the firm's future performance (Ding et al., 2018). Thus, managers use earnings management to achieve a positive market reaction that ultimately leads to a good performance of the firms in the markets (Tarmidi & Murwaningsar, 2019).

Literature has noted the existence of a significant relation between earnings management and the value of the firm. Tarmidi and Murwaningsar (2019), using data from manufacturing companies in Indonesia, have revealed a positive relationship between earnings management and the firm's value. The plausible assumption toward this is that managers seek to influence investors' reactions through profit optimization. Similarly, Siladjaja et al., (2018) have highlighted the difference in influential behaviours between positive and negative earnings management. They have shown that negative earnings management misled investors' perception by reporting high-

quality accruals that subsequently negatively impacted firms' value. However, positive earnings management, which is done through high-quality reporting earnings, positively affects firms' value. After all, positive earnings management indicates investors' capability to detect earning manipulation. Therefore, managers will lack the opportunity to use earnings to deceive investors rather than report the firm's true economic value (Abdelwahed, 2018). Therefore, based on the above finding of the prior research, earnings management is presumed to be related to firm value in an unpredicted direction. Thus, the following hypothesis is developed:

H1: Earnings management is related to firm performance.

As mentioned before, earnings management could be conducted via two approaches. Real earnings management (REM) and Accrued based earnings management (AEM). Although companies use both forms of earnings management interchangeably, it is plausible that their impacts are not the same (Sundvik, 2016). REM and AEM occur at different periods in a financial year and involve unrelated items of accounting information. In light of this concern, there is a need to differentiate the impact of each form of earnings management.

Managers exercise accrual earnings management at a fixed time in a year, normally during the mid-term or year-end. Most importantly, they exercise the accrual-based earning management while they know a significant portion of the whole financial performance of the firms. In line with Signalling Theory, it is plausible that managers are in a position to know some information which shareholders do not know. Ideally, this indicates that managers use accrual-based earnings management to manipulate earnings and send a signal to attract market reaction.

In addition, managers utilize accrual-based earnings management to adjust income upward or downward by exploiting the advantage of flexibility embedded in the generally accepted accounting principles (Li, 2019). Lizinska and Czapiewski (2018) found that managers exercise discretionary accruals to influence public or equity offerings. In other words, managers are using accrual earnings management to influence the company's performance before the public offering so as to attract a high share price. This finding was also confirmed by Tang et al. (2013), who revealed that managers employ discretionary accruals to manipulate earnings in order to mislead the market before their scheduled stock trading. Likewise, Cyril et al. (2019) argued that accrual-based earnings management positively affects firm performance in the short time, while in the long run, it will bring a negative impact on the firm value. In the long run, the market will realize the company's fraudulent practice and will subsequently react by penalizing the firm with poor stock performance. This situation leads to an expectation of either a positive or negative correlation between accrual-based earnings management and firm value. Therefore, this study proposed the following hypothesis:

H1a: Accrued based earnings management is related to firm performance.

The second type of earning management is real earnings management (REM). Managers used REM as an alternative to AEM because AEM is deemed to be easily detected by auditors (Sundvik, 2016). REM is exercised during the operational period of the company by manipulating daily operations such as sales, discretionary expenses and production costs. Basically, REM has a significant impact on the firm's performance that is presented through the financial reports. REM attracts less attention from auditors and the government because it is not

easier for unrelated parties to spot earnings manipulation conducted through real operations such as overproduction and sales discounts (Li, 2019; Dakhllalh et al., 2020).

Recent studies have provided evidence of real earnings management conducted through tangible activities such as disposal of fixed assets and underinvestment in long term projects (Al-Shattarat et al.,2018). Moreover, Ipero and Parbonetti (2017) reveal that REM is more popular in countries with intense legal enforcement because of adopting IFRS. Similarly, Choi et al. (2018) revealed that the gravity of REM is positive related to the strength of the specific country's legal system. Likewise, Enomoto et al. (2015) posited that real management is more utilized in countries with greater investor protection. Recent studies have shown that variations in managers' expectations in different countries may reveal different levels of real earnings management practices across countries (Enomoto et al., 2015; Al-Shattarat et al.,2018; Almarayeh et al., 2020).

The literature has identified a close relation between REM and firm performance (Dakhllalh et al., 2020). Zhao et al. (2012) mentioned that signalling characteristics of REM are compatible with the aim of managers who want to meet earnings targets and influence future firm performance by exploiting unusual operations. It is plausible that managers use earnings indicators to signal good performance in order to influence shareholder reactions. This assumption is fueled by the hypothesis that managers will seek to capture capital market incentives by avoiding reporting a decrease in earnings or negative earnings surprise (Al-Shattarat et al., 2018). Prior studies have extensively noted that firms use REM to positively

impact cash flow and future performance (Darmawan, Sutrisno & Mardiyati, 2019; Khuang et al., 2019 & Dakhlallah et al., 2020)

On the contrary, other studies revealed that firms associated with higher REM tend to experience an adverse impact on their future performance (Alhadab et al., 2015; Kothari et al., 2016; Leggett et al., 2016; Al-Shattaratm et al., 2018). At this juncture, REM is presumed to have an impact on firm value. Therefore, the following hypothesis can be generated:

H1b: Real earnings management is related to firm performance.

2.7.2 Tax Planning and Firm Value

Firms use tax planning as an integral part of their financial strategies when seeking to enhance firm value through increased profit and improved cash flow (Nwaobia et al., 2016). However, the studies on the relationship between tax planning and firm performance have produced controversial results so far. Kawor & Kportorgbi (2012) examined the companies' tax planning performance levels from the listed Ghana stock exchange for the period of 2000 to 2012. Their results indicated that the tax plan negatively impacts the firm's performance. This result is inconsistent with the result documented by Yorke et al., (2016). Yorke et al., 2016 also investigated the association between tax planning and firm performance on listed public firms on the Ghana stock exchange for the period 2003 to 2012. They revealed the existence of a positive correlation between tax planning and firm value in Ghana. In attempting to explain their results, Yorke et al., 2016 argued that due to the existence of agency conflict, managers used tax

planning to simultaneously enhance shareholders' value and gain some personal benefits. This result was also confirmed by Amidu et al., (2019).

Further mixed findings on the linkage between tax planning and the firm's value have been revealed in different settings. Ftouhi et al., (2015) conducted studies in the European context by analyzing a sample of 73 firms in the Euronext 100 Index for the period of four years from 2008 to 2012. They found that tax planning has negative effects on firm value due to high agency costs. Their result differs from the study of Yorke et al., (2016), who found positive effects between the two-tax planning and firm value due to high agency cost. Ftouhi et al., (2015) argued that the information asymmetry associated with tax planning would cause moral hazards and other related significant risks, which reduces the firm's value. Moreover, Silvy (2019), by using the effective cash rate, has also documented negative effects between tax planning and firm value in Indonesia.

Literature has noted the existence of tax planning in different components, which are presumed to have effects on firm value. These components are tax savings, effective tax rate and book-tax difference. Thomsen and Watrin (2018) revealed the large extent of tax savings for US firms, implying increasing tax avoidance practices over time. Tax saving is also considered an alternative source of finance in times of financial constraints because other sources are deemed to be more costly and inaccessible (Edwards et al., 2016). That means cash flow source generated through tax savings can be chosen as a potential source of the fund by firms during the financial crisis period. Green and Ker (2016) supported this by presenting the evidence that firms use tax savings obtained from tax planning activities for investment purposes. Further empirical

evidence indicated that firms also generate cash tax savings using deferral-based tax planning (Edwards et al., 2016).

On the other hand, it is widely accepted that tax savings increase firm value when the managers make the tax-efficient decision (Pratama, 2018; Abdelfattah & Aboud, 2020). Evidently, Pratama (2017b) revealed that for a company with strong corporate governance, tax savings create opportunities for managers to generate earnings for the subsequent periods, which can be used to compensate for the previous adverse operating outcomes. However, Kim et al. (2011) argue that adverse tax planning through tax savings could motivate managers to manipulate earnings, which results in negative performance for an extended period. The finding was also supported by Sipahi (2020), who conducted a study in Cyprus by proxying tax savings as a measure of tax avoidance and found that tax avoidance negatively affects firm value. Therefore, based on the above findings, firms are presumed to use tax savings to reduce tax liability and enhance the firm's performance.

Firms are also reported to extensively engage in permanent book-tax differences (tax conformity) due to nonconformity between financial reporting standards and country tax regulations (Abdul-Wahab, 2014). Book tax differences arise due to the difference in purpose between financial statement income and federal taxable income. Financial statement income seeks to assess the firm's performance, while the federal tax revenue intends to compute the actual tax payable (Chukwudi et al., 2020). This variation results in the existence of tax avoidance behaviour due to the perception that tax conformity creates an opportunity for companies to exercise strategic tax planning, which results in firm value enhancement. Book tax differences are further categorized

into permanent and temporary differences. Permanent arises from the flexibility that is recognized by accounting standards but not tax regulations, while temporary is caused by variation in transaction recognition time between the requirement of accounting standards and tax principles (Huang & Wang, 2013; Chukwudi et al., 2020). The majority of the firms are observed to exploit tax planning by using permanent book-tax differences.

Tang and Firth (2011) conducted a study on Chinese listed companies. Their findings revealed that firms use book-tax differences to exploit accounting and tax manipulations induced by a managerial motivation to increase firm performance. Their finding was affirmed by Chukwudi et al. (2020), who found a positive relationship between permanent book-tax difference and firm value in Nigeria. They suggested that in order to maximize firm value, firms should plan tax diligently. However, a different finding was noted by Razali et al. (2018), who conducted a study using listed firms from Bursa Malaysia and found a negative relationship between permanent book-tax difference and firm value.

The use of an effective tax rate is another reflection of aggressive tax planning, which minimises the company's tax burden without necessarily affecting its accounting income (Chukwudi et al., 2020). Basically, the Effective tax rate assesses the tax performance of the company based on the amount of tax paid relative to profit before tax (Chukwudi et al., 2020). It has been used to capture a wide range of tax strategies that vary from high to low probabilities of attaining successful tax planning (Asiri et al., 2020). In other words, an effective tax rate is useful for evaluating the overall tax liability and cross-section variation in a firm's total tax planning (James, 2019). Recent studies have also used the effective tax rate to capture the relationship

between tax planning and other disciplines of firm performance, such as investment (Blaylock, 2016; Khurana et al., 2018; Asiri et al., 2020), securities litigation (Arena et al., 2019), CEO Age (James, 2019).

The effective tax rate as a proxy was widely used to identify the relationship between tax planning and firm performance. Nwaobia et al. (2016) highlighted that when tax planning is systematically arranged using an effective tax rate, it will affect firm value and liquidity. A similar finding was shown by York et al. (2016), who revealed a positive correlation between effective tax rate and firm value. However, this finding was negated by Chukwudi et al. (2020) who noted an adverse association between the effective tax rate and the value of the quoted manufacturing firms in Nigeria. The negative association between effective tax rate and firm value was also presented by Thomsen and Watrin (2018) when analyzing 12 European countries using the Amadeus dataset. Hence based on this observation, it is presumed that there is a relation between the effective tax rate and the value of the firm. Therefore, with the above findings, it is presumed that there is a relation between tax planning and the value of the firm; thus, the following hypotheses is developed:

H2: Tax planning is related to firm performance.

2.7.3 Earnings Management, Tax Planning and Firm Value

Literature has acknowledged the joint relationship between tax planning, earnings management, and the firm's value (Sundvik, 2016; Yorke et al., 2016; Amidu et al., 2019). Change in tax rates was recognized as one of the incentives for earnings management (Sundvik, 2016). Managers are

deemed to shift or postpone the recording of income from the period with a high tax rate to the one with a low tax rate. Therefore, simultaneously achieved to reduce tax liability and uplifted earnings (Amidu et al., 2019). However, studies that have focused on the joint relationship between tax planning, earnings management, and the firm's value have resulted in mixed findings. Yorke et al. (2016), Apart from finding a positive correlation between tax planning and the value of the firm, also discovered that the joint effect of tax planning and earnings management has an adverse impact on firm value. While on the contrary, Sundvik (2016) revealed a positive relation between the joint effect of tax planning, earnings management, and the firm's value. Hence, despite the above-mixed finding, the joint effect of tax planning and earnings management is presumed to have an impact on the firm value. Therefore, the following hypothesis is generated:

H3: There is a relationship between the joint effect of tax planning, earning management and firm performance.

2.7.4 Earnings Management, Tax Planning and Moderated variables

As previously mentioned, the manipulative practices of firms need to be moderated to reduce its harmful impact on the firm's value. A growing strand of Literature revealed a strong relationship between moderated variables and manipulative practices (He et al., 2017; Abdelwahed, 2018; Siladjaja et al., 2018). According to agency theory, the impact of the moderated variable is to restrain managers from exercising manipulative practices to their personal advantage. Therefore, the hypotheses developed in this section are required to examine the moderated effect of dividend policy and audit quality on the manipulative practices & firm's value relationship.

Despite the existence of several studies on the interaction between dividend policy and tax planning, the critical question about the nature of their relationship remains unanswered. Explicitly, the literature has observed contradictory findings concerning the impact of dividend policy on tax planning. While Siladjaja et al. (2018) have revealed the existence of a negative relationship between tax planning and dividend policy, (Zagonel et al., 2018) highlighted the existence of a positive relationship for Brazilian firms as they change their dividend policy to cater for the change in tax legislation. A similar finding was provided by Repon (2016), who posits that an effective dividend policy can reduce tax liability and help firms to maximize shareholders' wealth. Therefore, based on the above finding, it is presumed that there is a relationship between dividend policy and tax planning, which lead to the following hypothesis:

H4a: The relationship between tax planning and firm performance is moderated by dividend policy.

Audit quality has proven to have a strong relationship with tax planning. The Audit quality, which is proxied by the Big 4 or Audit fees, is associated with the provision of high-quality investigation and assurance services around the world (Bing et al., 2014). As the primary role of auditors is to express an opinion regarding the quality of financial reporting, it is anticipated that firms with a high audit quality maintain a minimum level of tax aggressiveness. In a situation where the magnitude of information asymmetry and agency conflict is very high, auditors' moderated role is vital to the efficient allocation and utilization of resources (Alzoubi, 2016). Therefore, the role of external auditors is deemed to be extremely important in combating the tax avoidance behaviours of managers (Brooks & Sun, 2020).

Although the traditional view of tax avoidance is perceived as a strategy for enhancing the value of the firm, value maximization might not be attained due to the existence of agency problems and information asymmetry (Brooks & Sun, 2020). Thus, the auditor's experience is highly required to monitor managers from exercising harmful tax planning by reducing the information asymmetry between shareholders and managers. In other words, audit quality is presumed to moderate the impact of aggressive tax planning on firm value. This perception was affirmed by (Gaaya et al., 2017), who supported the moderated effect of audit quality on the association between tax avoidance and family ownership. More finding was also provided by Brooks and Sun (2020), who examined the audit firm tenure, tax planning and firm value using a large sample from US firms. They find a significant and positive moderating effect of the audit firm tenure on the relationship between firm value and each of the components of tax planning.

However, the contradictory proponent was also provided by Rizqia and Lastiati (2021), who argued that audit quality might not necessarily achieve to monitor aggressive tax planning due to the existence of a long-term bond between the audit firm and the client. This proponent was supported by Murwaningsari and Tarmidi (2019), who found that audit quality does not reduce tax planning practices in Indonesia. Since the relationship between audit quality and tax planning lead us to predictions in a different direction, the following hypothesis is developed:

H4b: The relationship between tax planning and firm performance is moderated by audit quality.

On the other hand, a significant amount of studies document the existence of a relationship between audit quality and earnings management. It is empirically argued that higher audit quality is linked with higher earnings quality (Sitanggang et al., (2020) as high-quality audit lessens the degree of managers to engage in earnings manipulative and enhances the informativeness of financial reports (Bing et al., 2014). Indeed, the findings which link the audit quality are several but mixed.

Evidently, Spathis (2012), drawing five years sample of firms listed from the Anthen Stock exchange, examined the association between earnings management through signed discretionary accruals and audit quality measured by the size of auditor (Big four and Non-Big four), the findings showed that the size of the audit firm does not affect the level of earnings management. The result corroborates the upshot by Becker et al. (1998), who examined the relation between audit quality and earnings management captured by discretionary accruals. They find firms with auditors from non big six companies exhibit a higher average and median absolute value of discretionary accruals, which signifies lower audit quality associated with more "accounting flexibility." The result contradicts that of Francis et al. (1999) using a large sample of NASDAQ firms over the period 1975-1994 who revealed that the possibility of using a Big six auditor increases firms' endogenous tendency for accruals. The result also found that the companies audited by Big six audit firms have lower amounts of estimated discretionary accruals, implying that high-quality auditors reduce aggressive and opportunistic reporting behaviours of the firms with high accruals levels. Thus, based on this finding, the following hypothesis is generated:

H5a: The relationship between earnings management and firm performance is moderated by audit quality.

However, there is scant research on the relationship between dividend policy and earnings management. Empirical evidence on the relationship between dividend policy and earnings management yields contentious findings. Dividend policy is argued to impact both upward and downward real earnings management (Liu 2011). When earnings manipulation is positive, the dividend policy was informed to give strong moderation of the earnings discretionary accruals and the firm's future performance (Siladjaja et al., 2018). In particular, Siladjaja et al. (2018) argued that high earnings quality may increase dividends payout by overcoming financial constraints. Notably, dividend payout is perceived to mitigate the agency cost associated with free cash flow and also minimize managers' fraudulent behaviour (He et al., 2017).

Alternatively, dividend policy does not encourage managers to manipulate earnings upwards when the dividend is responsive to reported earnings (He et al., 2017). This is because the manipulation of earnings when the dividend is tied to the reported earnings will cause financial hardship. Dewenter and Warther (1998) suggested that firms must choose between cutting dividends or minimizing earnings manipulation when dividend payment depends on the reported earnings. Notably, it is plausible that the relation between dividend policy and manipulative practices differ according to specific countries' level of transparent and investor legal protections (He et al., 2017). Pinkowitz et al. (2006) revealed the connection between earnings management and dividend policy is strong in countries with weak investor protection, while He et al. (2017)

documented that dividend policy reduces earnings manipulation in countries with weak institutions and low transparency. The above finding provides evidence that there is a relationship between dividend policy and earnings management, which leads to the hypothesis that dividend policy moderates the relationship between earnings management and the firm's value. Therefore, the following hypothesis is developed:

H5b: The relationship between earnings management and firm performance is moderated by dividend policy.

Table 2. 2: Summary of Hypotheses

| Hypothesis | Description |
|-------------------|---|
| H1 | Earnings management is related to firm performance |
| <i>H1a</i> | <i>Accrued based earnings management is related to firm performance</i> |
| <i>H1b</i> | <i>Real earnings management is related to firm performance</i> |
| H2 | Tax planning is related to firm performance |
| H3 | There is a relationship between the joint effect of tax planning, earning management and firm performance |
| H4a | The relationship between tax planning and firm performance is moderated by dividend policy |
| H4b | The relationship between tax planning and firm performance is moderated by audit quality |
| H5a | The relationship between earnings management and firm performance is moderated by audit quality |
| H5b | The relationship between earnings management and firm performance is moderated by dividend policy |

2.8 Chapter Summary

Despite the vast literature on the manipulation of earnings management and tax planning, little attention has been put to the interaction between the two. On top of that, very little literature was directed in Africa, especially in East African countries. Although most of the prior studies on earnings management and tax planning have examined the individual effects of the two, few studies also documented the linkage between tax planning and earnings management. Those studies revealed that changes in tax rates lead to tax incentives accounting for earnings management (Sundvik, 2016; Yorke et al., 2016; Amidu, 2019). Similarly, literature acknowledged the existence of tax planning and earnings management in African countries (Yorke et al., 2016; Amidu et al., 2019; Waweru & Ntui, 2019).

While literature documented that firms practice earnings management and tax planning to enhance firm performance, it is of great interest to consider that several other incentives have been documented. Sundvik (2016) documented that firms manipulated earnings and tax liabilities to achieve two significant incentives: beneficially and opportunistic. Beneficially incentives refer to those manipulative activities that positively affect firm value, in other words, the activities that enhance the firm's value. On the contrary, opportunistic incentives are those manipulative activities that negatively impact firm value, especially those which are done to meet managers' personal benefits.

Literature has documented several theories to underlie the relationship between tax planning and earnings management. Among them is the Agency Theory, Signalling Theory, Positive

Accounting Theory and Regulation Theory. The Agency and Signalling Theories are the main theory which applies to this study. The Agency Theory postulates that managers will refuse to conform to shareholders' interests due to agency problems and instead decide to engage in manipulation activities to achieve their personal desires (Amidu et al., 2019). Likewise, Signalling Theory posits that managers display positive or negative information about the firm's future performance by using tax planning and earnings management to hide the firm's true economic value (Prior et al., 2008).

Both Agency Theory and Regulation Theory require close monitoring of managers against manipulative action. Managers' decisions to engage in manipulative activities are limited by the quality of audit and dividend policy. The efficiency of auditing assignments depends on auditors' ability to reduce managers' fraudulent behaviour in manipulating earnings and tax liabilities. This is because auditors with higher quality are mostly expected to uncover improper accounting practices (Waweru & Ntui, 2019). Also, due to the existence of agency problems, the dividend policy is perceived to reduce the manipulative practice of the firm. Since the dividend is paid out of earnings, the manager will be reluctant to manipulate earnings upward to pay out high dividends to shareholders.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This study investigates the effect of tax planning and earnings management on firm performance in EAC. In particular, the study combines the Agency and Signalling theories to investigate the association between manipulative practices and the existing interaction between managers and shareholders in enhancing the firm's goal. This study uses a deductive approach in which theories has been tested and observed throughout the hypotheses. The study also utilizes the unbalanced panel data of EAC listed firms from the four security exchanges, namely as Nairobi securities exchange (NSE), Dar es salaam stock exchange (DSE), Uganda securities exchange (USE) and Rwanda stock exchange (RSE) from 2009 to 2019.

This chapter is then organized in subsections as follows; 3.1 provides brief introduction of the chapter. 3.2 reviews research perspectives for the study. It highlights philosophical assumptions that guide the research strategy and methods a researcher adopts in conducting the study. 3.3 explores the conceptual, theoretical framework whereby the empirical model for meeting research objectives is developed. 3.4 presents data type and data sources, and subsection 3.5 explains the measurement of variables. 3.6 present the data analysis methods, including econometric estimations. 3.7 presents regression estimation models. Subsection 3.8 provide research instruments used to conduct data analysis and 3.9 highlights chapter summary.

3.2 Research Perspectives

Research perspectives highlight philosophical assumptions that guide the research strategy and methods a researcher adopts in conducting a research study. Under this section, the appropriate paradigm for this study is also being identified.

3.2.1 Research Philosophy

Research philosophy delineates essential assumptions which underpin the research approaches and methods adopted in conducting a particular study (Saunders et al., 2011). According to Easterby-Smith, and Crossan (2003), as cited in Thorpe and Jackson (2012), the exploration of research philosophy is significant in evaluation, refining and specifying the appropriate research methodology for the study, in the same manner, it helps the researchers to avoid inappropriate and unnecessary use of methodology and methods at the early stages. In addition, research philosophy also helps the researcher to be creative and innovative in selecting and adopting different methods. In brief, researchers are advised not to be methodologically driven; besides that, the methodological choice should be determined by their philosophical stance and the social science phenomenon to be examined (Holden & Lynch, 2004).

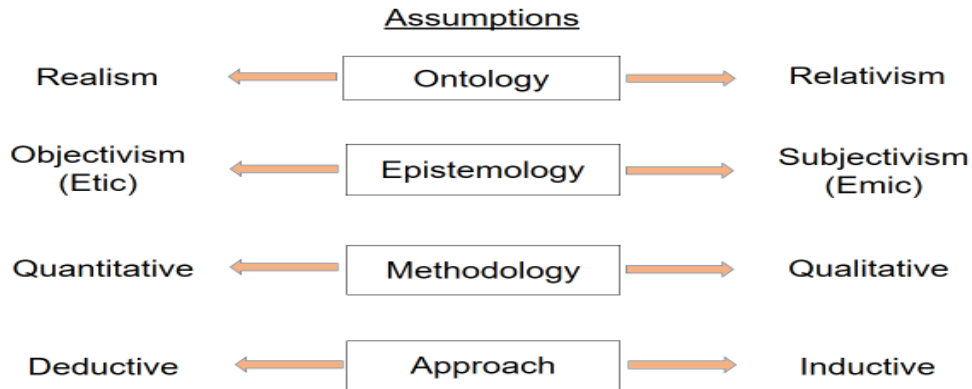
The literature has noted the three most essential assumptions in determining the appropriate research philosophy for a particular study. The underlying assumptions are named ontological, epistemological and methodological assumptions. The Ontology assumption is based on the nature of reality or the perception of the truth, whether there is a single reality (realism) or multiple reality (relativism). Ontology is viewed as the foundation stone of all assumptions because what is presumed on the ontology predicates other assumptions (Holden & Lynch, 2004).

Epistemology deals with the relationship between researcher and research. It indicates the means for the researcher to gain knowledge about reality. The ontology assumption detects the epistemology assumption of research. That means what a researcher believes about ontology will reflect the underlying epistemology assumption to be followed. The choice of methodology is also made based on the researcher's assumptions. The methodological assumption refers to a means available to a researcher to investigate the phenomena (Holden & Lynch, 2004). In other words, it relates to the philosophies that guide data gathering.

Studies that view ontology as a single reality believe truth can be objectively measured and generalized to other situations. Hence, they follow the epistemology assumption known as the etic approach, which requires the researcher to be independent with the research during the process of gaining knowledge. On the contrary, studies based on relativism ontology believe that truth evolves and changes. Hence reality can be subjectively measured and can never be generalized. Thus, in order to gain knowledge, the researcher is required to interact with the research. This epistemology assumption is commonly known as the emic approach.

The methodology is also adopted based on ontological and epistemological beliefs. Researches that follow the realism assumption adopts a quantitative approach of methodology in which data are gathered by using questionnaire or secondary data, whereas the research is conducted by using a deductive approach. On the other hand, research based on the relativism assumption adopts a qualitative methodology and is conducted by using an inductive approach. Figure 3.1 below summarizes the assumptions.

Figure 3. 1: Analysis of the assumptions



Note: Author's own work

Research Philosophy stems from the researcher's ontology, epistemology, and methodology assumptions. The most popular research philosophies are divided into two dimensions based on the quantitative and qualitative nature of the research. The quantitative research is reported to follow positivism philosophy built on realism (Single reality). Hence research following positivism philosophy is conducted based on objective and deductive approaches, which start with theories, then followed by the development and testing of the hypothesis (Bryman, 2012; Saunders et al., 2012; Collis & Hussey, 2013; James & McGuire, 2016; Chen 2019). They are using quantitative data which are collected by using independent methods without any interaction between the investigator and the investigated object.

On the other hand, qualitative research follows interpretivism philosophy in which they are conducted based on subjective and inductive approaches (Saunders et al., 2012; Bryman & Bell, 2015). They follow an inductive approach, whereas data are collected by using dependent methods, which require the interaction between the investigator and the investigated object. The

difference between positivism and Interpretivism philosophies are summarized in table no 3.1 below.

Table 3. 1: Difference between Positivism and Interpretivism Philosophies

| Characteristics / Assumptions | Positivism View | Interpretive View |
|-------------------------------|---|---|
| Nature | Objective criteria rather than human beliefs and interests, determine the choice and methods of study | Researchers' interests, beliefs, skills and values determine the choice and methods of study |
| Ontology | Realism (Single Reality) | Relativism (Multiple Realities) |
| Epistemology | Objectivity (Etic) | Subjectivity (Emic) |
| Methodology and Methods | <ul style="list-style-type: none"> ➤ Quantitative ➤ Deductive Approach ➤ Large sample size ➤ Data are collected by using independent methods such as questionnaires, secondary data ➤ No need for validation of data | <ul style="list-style-type: none"> ➤ Qualitative ➤ Inductive Approach ➤ Small sample size ➤ Data are collected by using interaction/dependent methods such as interviews ➤ Need for Validation of Data |

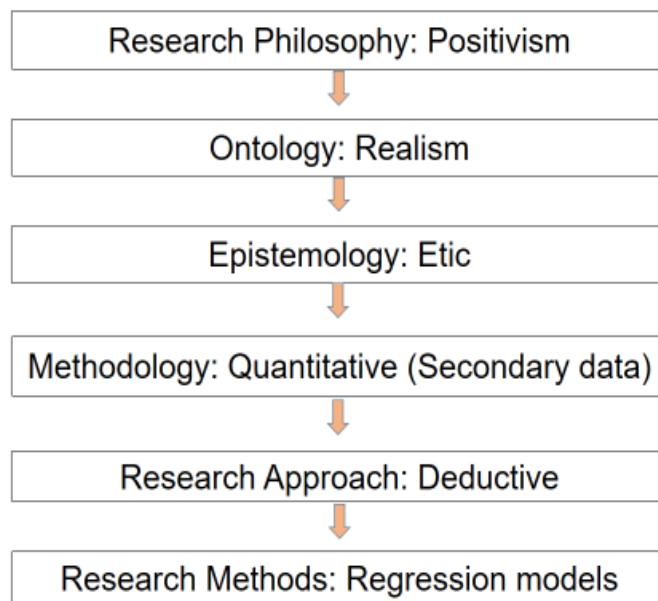
Source: Author own compilation.

3.2.2 Research Paradigm for this study

Since this study is quantitative in nature, it follows the positivism philosophy. That means the study has been conducted by assuming there is a single reality about manipulative practices and the value of the firms. The single reality posed is “*the existence of the relationship between the two*”. This study also believes that the nature of the relationship is moderated by audit quality and dividend policy and controlled by firm size, leverage, and growth opportunity. By adopting the positivism philosophy study will be conducted relying on the secondary statistical data collected without the researcher's interference and analyzed based on a deductive approach.

On the contrary, positivism philosophy is criticized for having a problem with result generalization. Researchers who are following this philosophy are reported to face the problem of connecting the empirical world to the mental world (Almasarwah, 2016). To solve this problem, some researchers are opted to follow the modern version of positivism known as post-positivism, which provides room for researchers' interference in identifying the reality. Hence post-positivism approach involves both quantitative and qualitative data (Crossan, 2003). Figure 3.2 below highlights the Methodological processes for this study.

Figure 3. 2: Methodology Process



...

These research methods adopt empirical analysis methods in which the interpretations of results vary according to the positivist view. This study is intended to test and confirm the proposed conceptual model as well as the predetermined hypothesis by using a regression model on the association between manipulative practices and firm value. Hence, the study uses a deductive

approach to test and observe hypotheses based on the existing theories (Agency theory and Signalling theory). The type of evidence gathered will be analyzed and interpreted in such a way that it will provide answers to the research question posed. Table 3.2 below shows the association between the specific research questions and research methods.

Table 3. 2: Relationship between Research Questions, Objectives and Methods

| Research Question | Objectives | Research Methods |
|--|--|---|
| Does the earnings management affect the performance of firms in the EAC | To examine the effect of the earnings management on the performance of firms in East Africa | Quantitative data from annual reports Database analysis based on regression models |
| Does the Tax planning affect the performance of firms in the EAC | To examine the effect of the tax planning on the performance of firms in East Africa | Quantitative data from annual reports Database analysis based on regression models |
| Do the tax planning and earnings management have joint effect on the firm performance | To examine the joint effect of tax planning and earnings management on the firms' performance in East Africa | Quantitative data from annual reports Database analysis based on regression models |
| Do firms' audit quality and dividend policy moderate the relationship between tax planning and firm performance | Examine whether firms' audit quality and dividend policy moderate the relationship between tax planning and firm performance. | Quantitative data from annual reports Database analysis based on regression models |
| Do firms' audit quality and dividend policy moderate the relationship between earnings management and firm performance | Examine whether firms' audit quality and dividend policy moderate the relationship between earnings management and firm performance. | Quantitative data from annual reports Database analysis based on regression models |

Source; Author Compilation

3.3 Conceptual Theoretical Framework

3.3.1 Theoretical framework

The theoretical framework which underpins this study is made from Agency and Signaling theories. As defined by Hendriksen (1970), theory comprises a set of hypotheticals and conceptual and pragmatic principles that form the overall framework of a particular study. More specifically, a theory is explained by Saunders et al., (2011, p 683) as the “*formulation regarding the cause-and-effect relationships between two or more variables, which may or may not have been tested*”. In other words, theories are concerned with the development of variables and testing the relationship between the variables. Therefore, this study develops and tests the variables according to the underlying theories.

As discussed in chapter two, the main variables in this study are accrual-based earnings management, real earnings management, tax planning, audit quality, dividend policy, market value performance, and profitability/accounting performance. The relationships under examination are the effect of earnings management on firm value in the presence or absence of dividend policy and audit quality as moderated variables; the effect of tax planning on firm value in the presence or absence of dividend policy and audit quality as moderated variables; and the joint effect of earnings management and tax planning on firm value in presence or absence of dividend and audit quality as moderated variables. Manipulative practices are expected to have either a positive or negative effect on firm value, while moderated variables are expected to have a negative impact on manipulative practices.

The assumptions and predictions of this study are based on the Agency and Signalling theories. Both Agency and Signalling theories provide a powerful explanation of the relationship between manipulative practices and firm performance. Based on Agency and Signalling theories, managers are reported to create information asymmetry by hiding some important information from shareholders in order to gain control over firms and achieve their personal desires. This unethical behaviour of the managers increases agency problems and leads to a negative correlation between manipulative practice and firm value.

On the other hand, managers may attempt to reduce agency problems by manipulating earnings in the firms' best interest. Hence, managers manipulate earnings to signal excellent performance to earn positive returns from the market, thus resulting in a positive association between manipulative practices and the firm's value. Moreover, the presence of audit quality and dividends can play a significant role in reducing agency problems and information asymmetry between managers and shareholders.

3.3.2 Estimation Models Development

This study focuses on investigating the relationship between manipulative practices and performance as well as examining the moderated effect of audit quality and dividend policy. In order to establish the relationship among variables, multiple regression equations are formed as per Aquinis (2004). Since the study uses panel data, the Hausman specification test could be suggested in order to identify the most appropriate regression between the fixed effects and the random effects (Anagnostopoulou & Tsekrekos, 2017; Abdelwahed, 2018; Hassanein et al., 2018). However, most of the similar studies on panel data have observed the fixed regression

effect to be more suitable for analysis of this nature because fixed effect regression is able to deal with endogenous variables (Green, 2007; Addeh, 2016; Alzoubi, 2016; Abdelwahed, 2018; Fernandez-Rodriguez et al., 2020). The analysis is conducted by using Stata 16. In order to test the hypotheses H1 to H4 proposed earlier in this study, the following multivariate regression is developed:

$$FV_{it} = f(EM, TP, EM*TP, DP, AQ, \text{Control Variables})$$

Where the dependent variable (FV_{it}), independent variables, moderated variables and control variables are further described as follows

$$FV_{it} = \alpha_0 + \alpha_1 EM_{it} + \alpha_2 TP_{it} + \alpha_3 TP * EM_{it} + \alpha_4 AQ * TP_{it} + \alpha_5 AQ * EM_{it} + \alpha_6 DP * TP_{it} + \alpha_7 DP * EM_{it} + \alpha_8 SIZE_{it} + \alpha_9 LEV_{it} + \alpha_{10} GROWTH_{it} + \varepsilon_{it} \dots \dots \dots (3.1)$$

Where:

FV is the firm's value.

EM is earnings management.

TP is tax planning.

TP*EM is a Joint effect of TP and EM.

AQ is Audit Quality.

DP is Dividend Policy.

AQ*TP is moderated effect of the audit quality on tax planning and the Firm's value.

AQ*EM is moderated effect of the AQ on EM and the FV.

DP*TP is moderated effect of the dividend policy on tax planning and the Firm's value.

DP*EM is moderated effect of the dividend policy on earnings management and the firm's value.

SIZE represents firm size as control variables.

LEV represents financial leverage as control variables.

GROWTH represents firm growth opportunities as control variables.

α denotes the regression coefficient where $i= 0,1,2,3,\dots,7$.

ε denotes the error term.

For further analysis, to test individual and joint effects of earnings management and tax planning, to determine the moderated effect of audit quality and dividend policy on tax planning and earnings management, the following models are developed:

Model 1

The first model was introduced to examine the first hypothesis (H1) intended to determine the relationship between earnings management and firm performance. The model tests H1a and H1b.

Thus, the model is developed as follows

$$FV_{it} = \alpha_0 + \alpha_1 AEM_{it} + \alpha_2 REM_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 GROWTH_{it} + \varepsilon_{it} \dots \dots \dots (3.2)$$

Where AEM is accrued based on earnings management and REM is real earnings management.

Model 2

Model 2 was developed to test the second hypothesis (H2), examining the relationship between tax planning and firm performance. Hence the model tests H2a, H2b, and H2c.

$$FV_{it} = \alpha_0 + \alpha_1 TP_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 GROWTH_{it} + \varepsilon_{it} \dots \dots \dots (3.3)$$

Where TP was measured by using book-tax difference (BTD), where robustness check was performed by using effective tax rate (ETR).

Model 3:

Model 3 was developed to examine the third hypothesis (H3), which determines the joint effect of earnings management and tax planning on firm performance.

$$FV_{it} = \alpha_0 + \alpha_1 AEM * TP_{it} + \alpha_2 REM * TP_{it} + \alpha_3 AEM_{it} + \alpha_4 REM_{it} + \alpha_5 TP_{it} + \alpha_6 SIZE_{it} + \alpha_7 LEV_{it} + \alpha_8 GROWTH_{it} + \varepsilon_{it} \dots \dots \dots (3.4)$$

Model 4:

Model 4 was developed to examine the fourth and fifth hypotheses (H4 & H5), to determine the moderated effect of dividend policy and audit quality.

$$FV_{it} = \alpha_0 + \alpha_1 AEM_{it} + \alpha_2 REM_{it} + \alpha_3 TP_{it} + \alpha_4 AQ_{it} + \alpha_5 DP_{it} + \alpha_6 AEM * AQ_{it} + \alpha_7 REM * AQ_{it} + \alpha_8 TP * AQ_{it} + \alpha_9 AEM * DP_{it} + \alpha_{10} REM * DP_{it} + \alpha_{11} TP * DP_{it} + \alpha_{12} SIZE_{it} + \alpha_{13} LEV_{it} + \alpha_{14} GROWTH_{it} + \varepsilon_{it} \dots \dots \dots (3.5)$$

3.4 Research design

Research design is an overall research plan designed to collect appropriate data for answering research questions and meeting research objectives (Habib, 2021). It involves the process of identifying the source of data and ensuring relevant data are collected at minimal cost and effort (Yimbila, 2017). Since this study relies on probability theory to test the hypotheses and responding research questions, it adopts a quantitative approach. The study then utilizes the numerical data from audited financial and tax reports collected through secondary sources. The relevant data are collected from reliable sources to ensure the study hypotheses are well tested and objectives appropriate met. Furthermore, the study follows a deductive approach to meet its analysis, which involves statistical tests.

3.4.1 Sampling Location

The study covers listed companies from four EAC, namely Kenya, Tanzania, Uganda and Rwanda. The scope for this study is EAC due to the following reasons; First, many EAC Member States have experienced significant changes in both internal and external economic and political conditions during the last decade, with enormous effects on both the public and firm's performance (AFDB, 2019).

Second, the EAC has established a common market which creates an opportunity for East African companies to trade in a free competitive environment (EAC, 2020). The availability of free competitive markets will help firms to design proper strategies for enhancing firm performance.

Third, the EAC has 117 listed firms in four capital markets (DSE, NSE, USE and RSE), whereby all the markets operate under similar laws and regulations with minor discrepancies due to the difference in the level of market development (EA Stock Market 2020). This will ease the comparison analysis across the partner states.

Finally, since adopting the IFRS, the EAC is still struggling to comply with all requirements of the Standards (Tawiah, 2019). As a result, different treatments are used by companies to present their records in a manner that creates opportunities for them to capitalise on this flexibility to their advantage.

Apart from those factors that have influenced the selection of location area, this study also controls for country differences factors to ensure the validity and reliability of the findings. Firstly, the sample was selected to include a diverse range of companies across countries with

varying levels of earnings quality. This allows me to capture the effects of different regulatory environments and accounting standards. Also, the sample comprises economically and politically stable countries to reduce the impact of external factors on firm performance. Moreover, the study has included relevant control variables that may influence firm performance, such as firm size, financial leverage and growth opportunity. Finally, the study has conducted sensitivity analysis by varying key parameters and assumptions to test the robustness of your results across different scenarios.

3.4.2 Sampling Techniques

Sampling is the process of selecting an adequate representative sample of the population required to make inferences or generalizations in relation to existing theory (Taherdoost, 2016). Generally, a researcher must choose between the two types of sampling techniques known as probability or random sampling and non-probability or non-random sampling.

The study has purposively or deliberately random selected a particular sample of firms to represent EAC listed companies with the perception that the selected sample is rich and has reliable information for the statistical inference of the study. Therefore, the study has adopted a non-probability sampling method known as judgmental purposive random sampling.

3.4.3 Sample Size

To examine the impact of earnings management and tax planning manipulation on firm performance, secondary data has been used. The EAC comprise a total of 117 listed firms, of

which 70 are non-financial institutions. Since EAC comprises a manageable sample size of 70 non-financial institutions, the population sample selected for the study utilizes all these firms which are listed at DSE, NSE, USE and RSE. However, after removing all firms with insufficient information, the final sample remained with 48 firms, making a total of 516 firm-year observations. Table 3.3 shows the determination of sample firms, and Table 3.4 shows the final sample distribution based on the industry in EAC.

Firms that are not listed are excluded because they have different incentives for manipulative practices compared to listed firms. Unlisted firms are reported to engage in manipulative practices to reduce or avoid tax, while listed firms exercise manipulative practices to attract market reaction (Hamza & Kortas, 2018). Moreover, this study excludes financial firms because the discretionary accruals proxy measurement for earnings management is not compatible with these firms (Li, 2019). The financial firms are also excluded due to complexities that arise from the variation of reporting standards (Abdulwahab, 2018).

The study covers a period of eleven (11) years, standing from 2009 to 2019. The justification for ending the sample in 2019 is that 2019 is the most current period where data was available at the time of collection. Thus, this will lead to the most recent empirical findings. Furthermore, 2009 is chosen as the starting year in order to include Rwanda, which become part of EAC in 2007 and took into account the effect of the financial crisis of 2008 and the establishment of the EAC common market in 2009. Data was downloaded from reliable sources, including the Bloomberg, stock markets and tax authorities of the respective countries. The study uses quantitative data generated from the audited financial reports of the selected firms in East Africa.

Table 3. 3: Determination of sample firms in EAC

| Sample Selections | No of Firms |
|---------------------------------------|-------------|
| Initial sample | 117 |
| Exclude: financial institutions firms | (47) |
| Exclude: Firms with incomplete data | (22) |
| Final sample | 48 |

Source: Owner's compilation.

Table 3. 4: Industry-wise Distribution of Final Sample

| Industry | No of Firms |
|-------------------------------------|-------------|
| Automobiles & Parts | 1 |
| Beverages | 3 |
| Chemicals | 4 |
| Construction and Materials | 7 |
| Electricity | 2 |
| Electronic & Electrical Equipment | 2 |
| Food & Drug Retailers | 1 |
| Food Producers | 9 |
| General Retailers | 1 |
| Household Goods & Home Construction | 1 |
| Industrial Transportation | 1 |
| Media | 5 |
| Mobile Telecommunications | 1 |
| Oil & Gas Producers | 2 |
| Plantation | 1 |
| Tobacco | 3 |
| Travel & Leisure | 4 |
| Total | 48 |

Source: Owner's compilation.

3.4.4 Data Collection

The study uses quantitative data generated from the audited financial reports of the selected firms from EAC. Data was downloaded from reliable sources, including the Bloomberg, stock markets and tax authorities of the respective countries.

3.4.5 Panel Data

Panel data is described by Baltagi (2008, p 1) as *the pooling of observations on a cross-section of households, countries, firms etc., over several time periods*. Panel data is categorized into balanced and unbalanced panel data. The balanced panel data includes data set with no missing observations. All firm-year observations are obtainable for the whole study's period. Meanwhile, unbalanced panel data contains missing observations for multiple firms during specific study periods (Baltagi, 2005; Gujarati & Porter, 2009). This study utilizes unbalanced panel data because it also aims to capture the earnings management and tax planning practices of the firms that have liquidated within the study period.

Panel data estimation was employed in this study because it provides more accurate results than the classical time series and cross-sectional analysis. Panel data utilize the advantages and rectify the weakness of time series and cross-sectional data. It also helps to control rejected variables and firm-specific effects (Stock & Watson, 2001). According to Baltagi (2008), unlike cross-sectional and time series analysis, panel data considers the firm's heterogeneous effect and subsequently leads to unbiased results.

Another advantage of panel data over cross-sectional and time analysis, as posited by Baltagi (2008), is that the panel data combine cross-sectional and time-series to provide less collinearity

among variables and give more informative data variability efficiency and a high degree of freedom. Furthermore, since panel data constitute cross-sections (repeated observations), it is preferable to analyse the dynamics of change and the measurement of effects that cannot be observed in a cross-section of time series analysis. Finally, panel data is more suitable for complicated behavioural models such as those used to estimate economies of scale and technological change.

3.5 Measurement of Variables

The empirical models developed in section 3.2.2 above comprise the independent, dependent, moderated, and control variables. As mentioned earlier, the empirical model of the study is guided by the agency theory and signalling theory. The next subsection discusses the measurement of the variables employed to explore the relationship between manipulative practice and firm performance.

3.5.1 Measurement of Dependent Variable (Firm Performance)

Firm performance measures are pervasive in corporate governance studies. Countless studies on corporate governance have categorized this measure into two groups, namely Profitability performance measures and market value measures (Al-Matari et al., 2014; Selvam et al., 2016). The market value measurement reflects the forward-looking aspect of the firm, and it is concerned with shareholder expectations about the firm's future performance. In contrast, profitability measurement presents the performance of the company based on past or historical performance (Chen, 2019). Since there is a trade-off between the advantages and disadvantages of each approach, it is important to integrate both approaches in measuring firm performance.

Also, using each approach as an alternative measure of the other helps to test the sensitivity of the reported results (Farhat, 2014).

3.5.1.1 Profitability (Accounting) Performance Measurement

Profitability performance measurement is considered an effective indicator of the ability of the firm to generate positive returns when it is compared with the provided benchmark (Al-Matari et al., 2014). The most common measures of profitability performance are Return on Asset (ROA), Earnings before Interest, Tax, Depreciation and Amortization (EBITDA), Profit Margin, Return on Investment (ROI), Return on Equity (ROE), Economic Value Added (EVA) and Net Income/Revenues. Generally, many studies that have measured firm performance using accounting measures have used ROA (Akomeah et al., 2018; Saidu 2019; Zimon et al., 2021). In line with the above mentioned recently empirical literature. This study also uses ROA to measure the accounting/profitability performance of the firms. The advantages of ROA are mentioned in the following subsections.

(i) Return on Assets (ROA)

Return on Assets measures how well the firm is generating profit by using assets employed. It shows the management's efficiency to utilize each dollar invested in the company to generate profit. Since assets are under the control of the management, ROA is mentioned to be the most suitable mechanism for investors to analyze the performance of management towards increasing their economic interests (Bilali, 2018). ROA is not only appropriate for operational events but also for the relevant historical precedence of the company over the year (Saidu, 2019).

Since ROA is measured by using earnings after interest and tax as a numerator, it has been criticized for using adjusted income which has accounted for implicit interest or indirectly invested capital (Wahlen et al., 2014). However, such adjustment is reported to have an insignificant effect on ROA analysis (Almadi, 2016). The other criticism of ROA related to variation in measurement of assets, profit, and preserve incentives across firms is resolved and controlled by using firm size as a control variable (Farhat, 2016). This study uses ROA as an accounting measure to encounter a substantial weakness of the market-based measure, which tends to inefficient aggregate information for compensation purposes due to its forward-looking behaviour (Bilali, 2018). The market-based measure's forward-looking behaviour can also result in compensation for unrealistic achievements (Almadi, 2016).

3.5.1.2 Market Value Performance Measurement

The market value performance is categorized as a long-term measure characterized by its prediction aspect and reflection of shareholder expectations on the firms' future performance (Bilali, 2018). The famous measurements in this category are Tobin's Q (Market Value/Replacement of Assets), Earnings Per Share, Changes in Stock Price, Dividend Yield, Stock Price Volatility, and Market Value Added (Market Value/Equity). This study uses Tobin Q as the market measure of firm performance.

Tobin's Q is the most widely used measurement of expected long-run firm performance (Al-Matari et al., 2014). In this study, Tobin's Q is calculated as the market value of assets over the book value of assets (Yorke et al., 2016; Bilali, 2018; Chen, 2019). However, Tobin's Q ratio has been modified from its original version to reduce its complexity arising from data availability

problems (Bilali, 2018). The complexity of using the original ratio was related to the unavailability of data for the replacement cost of assets. As a solution to this problem, researchers have decided to replace replacement costs with a book value of assets as the denominators (Bilali, 2018). Also, another problem of Tobin Q is the likelihood of Q to reflect growth opportunities. The use of asset market value to measure firm performance demonstrates the firm's future growth opportunities that may result from factors exogenous to managerial decisions (Sardo & Serrasquiro, 2018). The study uses growth opportunities as a control variable of firm performance to solve this problem.

3.5.1.3 Justification for using both market and profitability measurements

Although several measurement methods exist for firm performance, they cannot be used as a substitute for another because they measure different categories of firm performance. On the other hand, the existence of many measurement methods causes studies on the firm performance to encounter several obstacles, such as limited conceptualization and improper selection of indicators (Selvam et al., 2016). This happens because of inconvenience and poor consideration of the measurement method and its dimensionality (Selvam et al., 2016). Thus, to resolve this problem, researchers are advised to choose the most relevant measurement method and judge the outcome of the results based on a subjective model (Selvam et al., 2016).

Since this study employs more than one measurement method for firm performance, i.e., market measurement (Tobin Q) and profitability measurement (ROA), it is most likely to suffer from inconsistent results. The contradictory result is expected to occur when Tobin Q yields different results from ROA. However, ROA is used for short term analysis, while Tobin Q is used for long

term analysis. Hence the anticipated inconsistent results can not affect the generalization of the study findings.

3.5.2 Measurement of Independent Variables

The study has two independent variables: earnings management which AEM and REM represent, and tax planning, which is represented by book-tax difference (BTD). The study also estimates the joint effect of tax planning and earnings management, whereby the two variables are integrated into one variable in line with Yorke et al. (2016).

3.5.2.1 Measurement of Earnings Management

One of the critical issues that concern many researchers is the perfect measurement for earnings management. This is because earnings management has been invisible and not directly observed (Sundvik, 2016). As a result, some documented measurements were criticized for measuring earnings management with errors. Following the urgent need for accurate measurement of earnings management, researchers have tried to measure it by modifying previous models. Measurement of earnings management varies depending on the type of earnings manipulation.

Previous studies have utilized numerous models to investigate earnings management, such as distribution of earnings, specific accruals and aggregated accruals models (McNichols, 2000; Bissessur, 2008; Sundvik, 2016), discretionary accruals models (Stubben, 2010) and modified Jones model (Dechow et al., 1995). Distribution of Earnings, Specific accruals and aggregated accruals models were concurrently used by McNichols (2000) to measure earnings management. He discovered the existence of misspecification on these models in determining discretionary

behaviours. Hence, McNichols (2000) proposed for future researchers to develop models that can distinguish accruals' discretionary behaviours with and without manipulation.

Aggregated Accruals Models originated from Healy's (1985) and DeAngelo's (1986) models, in which both were explicitly focused on discretionary accruals. They measure earnings management by using total accruals and changes in accruals to obtain discretionary accruals. They use a balance sheet or cash flow to determine accruals components. These models were thereafter extended by Jones (1991), who added to the previous research by introducing a new model for testing and controlling non-discretionary accruals. Since its introduction, discretionary accruals have become the most famous model for measuring earnings management. Several scholars have upgraded the Jones Model into a more accurate statistical measurement model (Dechow et al., 1995; Kothari et al., 2005).

The literature recognizes the presence of other researchers' works in developing earnings management models. These researchers have used a different approach from the one used by Healy (1985), DeAngelo (1986), and other related scholars. For example, McNichols and Wilson (1988) introduced Specific Accruals Models. Specifically, a model focused on a single industry demonstrates similar trends of non-discretionary accruals within the same industry (Bartov et al., 2000). In other words, it concentrates on the size of the specific accruals for a single industry. For instance, the Financial institution industry, such as banks, will use loan loss reserves (Beaver & Engel, 1996). The critical aspect of this model is to identify normal and

abnormal components of accruals, and then the abnormal component is referred to as earnings management (Sundvik, 2016).

However, the specific accruals model has suffered from some criticisms. The model has been criticised for being difficult in determining which specific accruals were used for earnings management. Because it is possible for managers to utilize earnings management by using various accruals rather than specific accruals (Cetin & Ugur, 2015), another disadvantage of the model is that the approach requires the utilization of more institutional information and data, which increases the application costs (Almasarwah, 2016). Furthermore, the model was also criticised for being less useful because the number of companies employing specific accruals accounts is significantly low equivalent to the number of firms utilizing total accruals (Almasarwah, 2016).

Another approach used to spot earnings management is the distribution of earnings models. This model was developed by Burgstahler and Dichev (1997) and then extended by Degeorge et al. (1999), Myers and Skinner (2007). The distribution of earnings models has been employed to investigate earnings' statistical properties by identifying the firm's behaviours. It basically tests for a discontinuity of statistical distribution of a variable such as net profit around a doubtful verge such as zero profits or previous year profits (Sundvik, 2016). To employ this model, one needs to construct a histogram of variables in which the number of observed small profits will be compared with the number of observed small losses. The distribution of smooth earnings surrounding zero is considered uncontrolled earnings, whereas discontinued earnings are

considered an indication of earnings management (Sundvik, 2016). However, this approach was criticised for still being weak in measuring earnings management because it is unable to reveal the scope and type of earnings management (Beneish 2001 as cited in Cetin & Ugur 2015).

This research implements the widely accepted measures to detect earnings management. The modified Jones model (Dechow et al., 1995) is the most commonly accepted for measuring AEM. AEM is measured by dividing accruals into discretionary and non-discretionary accruals. The modified Jones model is used to measure the non-discretionary accruals component, whereby total accruals are then measured by using the balance sheet approach in line with Jones (1991), Dechow et al., (1995), Yorke et al., (2016), Amidu et al., (2019). On the other hand, REM has been measured by first following the Roychowdhury (2006) model in identifying three real manipulation activities i.e. cash flow from operations, production cost and discretionary expenses. The total effect of real earnings management is then calculated by combining the three individual's regression residual in line with Cohen et al., (2008), Sundvik (2016), Li (2019). Thus, the model adopted for measuring AEM is shown below.

Total accruals are then being estimated in line with Amidu et al., (2019), Dechow (1995), Jones (1991), Nagata (2013) as follows:

$$TA_t = (\Delta CA_t - \Delta Cash_t) - (\Delta CL_t - \Delta LTD_t - \Delta ITP_t) - DPA_t \dots \dots (3.6)$$

Where; TA_t is the total Accruals.

ΔCA_t is the change in current assets from time t-1 to t.

- ΔCash_τ is the change in cash from from time t-1 to t.
- ΔCL_τ is the change in current liability from time t-1 to t.
- ΔLTD_τ is the change in long term debt from time t-1 to t.
- ΔITP_τ is the change in income tax payable from time t-1 to t.
- DPA_τ is the depreciation and amortization expense in time period t-1 to 1.

The non-discretionary accruals is estimated by using modified Jones Model as follows:

$$\frac{TAC_\tau}{TA_{\tau-1}} = \alpha_1 \left(\frac{1}{TA_{\tau-1}} \right) + \alpha_2 \left(\frac{\Delta\text{REV}_\tau - \Delta\text{REC}_\tau}{TA_{\tau-1}} \right) + \alpha_3 \left(\frac{PPE_\tau}{TA_{\tau-1}} \right) + \varepsilon_\tau \dots \dots \dots (3.7)$$

Where; ε_τ is the error term.

On the other side, real earnings management has been measured by first considering three real manipulations activities as follows:

- 1) Cash flow from operations

$$\frac{PROD_{i,t}}{A_{i,t-1}} = \alpha_{1,t} \frac{1}{A_{i,t-1}} + \alpha_{2,t} \frac{SALE_{i,t}}{A_{i,t-1}} + \alpha_{3,t} \frac{\Delta SALE_{i,t}}{A_{i,t-1}} + \mu_{it} \dots \dots \dots (3.8)$$

- 2) Production Cost

$$\frac{PROD_{i,t}}{A_{i,t-1}} = \alpha_{1,t} \frac{1}{A_{i,t-1}} + \alpha_{2,t} \frac{SALE_{i,t}}{A_{i,t-1}} + \alpha_{3,t} \frac{\Delta SALE_{i,t}}{A_{i,t-1}} + \alpha_{4,t} \frac{\Delta SALE_{i,t-1}}{A_{i,t-1}} + \mu_{it} \dots \dots \dots (3.9)$$

- 3) Discretionary expenses

$$\frac{DISEXP_{i,t}}{A_{i,t-1}} = \alpha_{1,t} \frac{1}{A_{i,t-1}} + \alpha_{2,t} \frac{SALE_{i,t}}{A_{i,t-1}} + \mu_{it} \dots \dots \dots (3.10)$$

Where CFO is Operating Cashflow, PROD denote production costs, DISEXP represent discretionary expenses, SALE is the net sale, and A stands for total Assets. Likewise, $\mu_{i,t}$ from

equations 1 to 3 is the regression residuals representing an abnormal cash flow level from operating, production costs and discretionary expenses, respectively. Abnormal Cash flow is computed as the difference between the actual and expected level of cash flow (Cohen et al., 2008). Therefore, following Cohen et al., (2008), Li (2019), the three individual regression residuals are combined to grab the total effect of REM, where **REM = residual from equation 1 + residual from equation 2 – residual from equation 3.**

3.5.2.2 Measurement of Tax Planning

Appropriate measurement of Tax planning is still an ongoing debate. Several approaches have been employed to measure tax planning. Most of the commonly used measurements of tax planning are tax savings, effective tax rate, cash effective tax rate and book-tax difference (Yorke et al., 2016; Amidu et al., 2019; Kovermann & Wendt, 2019). This study uses book-tax difference as the main proxy for tax planning and effective tax rate as the robustness check measurement. Utilizing these methods in measuring tax planning helps increase the explanation of the tax planning effect (Thomsen & Watrin 2018). Also, implementing more than one proxy for tax planning helps test the robustness of results. It investigates whether the variables explained the impact of tax planning at the same level or not (Thomsen & Watrin 2018).

(i) Tax Effect Book Tax Difference

This measurement was employed by Tang and Firth (2008) when investigating the simultaneous effect of tax planning, earnings management and their interaction with the book-tax difference in Chinese listed firms. Instead of using income effect to measure BTD, they use tax effect BTD obtained directly from the Financial statements' disclosure. By doing so, they manage to avoid

measurement errors arising from the income effect method due to tax credits, tax differences, consolidation and tax loss carry forward (Hanlon, 2003). Furthermore, they manage to distinguish between regulatory and opportunistic components of BTD by separating BTD into normal and abnormal.

Tang and Firth (2008) propose that future studies measure the book-tax difference by using a disaggregate component of BTDs instead of an aggregated method. In doing so, they will be able to document the underlying cause of BTD and distinguish between regulatory and Opportunistic components of BTDs. Following Tang and Firth's suggestion, Donohoe and McGill (2011); Addeh (2016) have measured disaggregated BTD by decomposing it into temporary difference (TD) and permanent difference (PD). They first measured total BTD and then identified PD out of total BTD as the residual between total BTD and temporary difference. The temporary difference was calculated as the ratio of the deferred tax expense over the statutory tax rate. Hence, in line with Tang and Firth (2008); Donohoe and McGill (2011); Addeh (2016), this study measures book-tax difference using disaggregated BTDs, whereas Permanent Difference (PD) will be estimated as follows:

$$PD_{it} = BTD_{it} - TD_{it} \dots \dots \dots (3.11)$$

Where PD_{it} is the Permanent Book Tax Difference.

BTD_{it} is the Total Book Tax Difference.

TD_{it} is the Temporary Book Tax Difference.

Total BTDs will be measure in line with previous studies (Tang & Firth 2008; Wilson 2009; Addeh 2016) as the difference between *taxable income* and *accounting income*.

(ii) Effective Tax rate

Many studies have measured tax planning using effective tax rates (ETR) (Yorke et al., 2016; Amidu et al., 2019). Most of these studies have computed the effective tax rate as the total income expense over pre-tax accounting profit (Nwaobia et al., 2016). The effective tax rate is in favour of most scholars due to its numerous advantages, such as easy accessibility of data, its capacity to avoid data alteration, and reflection of the permanent book-tax difference. The ETR is also widely accepted for preventing a potential measurement error related to tax expenses on foreign income and tax credit (Abdul-Wahab, 2014). Nwaobia et al., (2016) refer ETR as the best measurement method in evaluating the actual tax burden of the corporate because it snapshots the basic statistical summary of tax performance.

On the other hand, the effective tax rate has been criticised for using accounting tax expenses. According to Amidu et al., (2019), tax expense combines both current and differed tax expenses. Many previous adjustments may be included in the differed tax expense, which leads to an overstatement of tax avoidance. To correct this error, (Lestari 2014; Yorke et al., 2016; Amidu et al., 2019) have modified effective tax rate measurement by deducting differed tax from total corporate tax expense. Hu (2018) measured the ETR as the difference between current and differed tax expenses divided by the summation of pre-tax income and provisional for impairment minus investment income. This study measures ETR in line with Abdul-Wahab 2014, Lestari 2014, Yorke et al., 2016 as a ratio of total corporate tax expense minus differed tax divided by pre-tax income.

3.5.2.3 Measurement of Joint Effect of Earnings Management and Tax Planning

Prior studies have put little attention on the joint effect of tax planning and earnings management on firm performance. Using a sample of non-financial listed firms from Ghana covering the period from 2003 to 2012, Yorke et al., (2016) have investigated the interaction between tax planning and earning management on firm value. The finding showed a negative statistical insignificant relation between the joint effect of tax planning and earnings management on firm value. However, the study by Yorke et al., (2016) has suffered from limited measurement variables. They have investigated the impact of only one type of earnings management, i.e. AEM, and ignored the impact of REM. Thus, this study explores this gap by examining the effect of interaction between the two variables by using both types of earnings management. In line with Yorke., (2016), the study measures the joint effect between tax planning and earnings management on firm value by using interaction proxies formed as the products of the following variables AEM & BTM and REM & BTM.

3.5.3 Measurement of Moderated Variable

3.5.3.1 Measurement of Audit Quality

Several approaches have been used to measure moderated impact of audit quality on earnings management and tax planning. The most widely applied approaches are audit firm size, audit fees and audit tenure. The moderated impact of audit quality based on audit firm size was measured by determining whether the auditor of the listed company is a Big 4 or Non-big 4 auditing firm (Maijor & Vanstraelen 2006; Francis & Wang 2008; Chi et al., 2011; Pappas 2015; Hu 2018). The term “Big Four” refers to the biggest four accountancy firms worldwide, which are Deloitte Touche Tohmatsu (Deloitte) Limited, PricewaterhouseCoopers (PwC), Ernst

and Young (EY) and KPMG. This approach measures audit quality by considering a dummy variable for audit firm size equal 1 if it is one of the big four and 0 if otherwise.

On the other hand, literature has noted a significant relationship between audit fees and audit quality (Abdelwahed, 2018). According to the economic theory of DeAngelo (1981), The auditors' incentives to compromise their independence are closely related to the economic value of fees they receive from the client. This means the moderated impact of audit quality on manipulative practice is influenced by the value relevance of audit fees (Chen et al., 2019). Given this concern, some researchers have measured audit quality as a percentage of audit fees on total sales (Chee Haat et al., 2008; Chen, 2016; Waweru & Prot, 2018; Chen et al., 2019). Therefore, in line with Alzoubi (2016), Abdelwahed (2018), and Kouib and Almulhim (2019), the audit quality is measured by using the natural logarithm of audit fees, and robustness check is done by using firm size proxied as big 4 or non-big 4. Audit quality is expected to have a negative association with earnings management and tax planning.

3.5.3.2 Measurement of Dividend Policy

Most scholars have measured the moderated effect of dividend policy through the dividend payout ratio, i.e. Dividend over Net Income (Idris and Bala, 2015; Ahmed et al., 2018; Siladjaja et al., 2018). Meanwhile, Pathak and Ranajee (2018) measured dividends as the ratio of dividends per year over the market value of equity (Dividend Yield). Liu (2011) used the dividend pay-out ratio and pre-managed pay-out ratio (dividend/ pre managed earnings) to cover the prior year's dividend and earnings. The underlying reason for this restriction is to be able to observe the difference in earnings management attitude between dividend payers after a

conservative dividend policy and other payers in the same financial position. This study uses a widely accepted method to measure dividend policy using the dividend payout ratio. However, this study also evaluates the robustness of the finding by using an alternative measure of dividend policy. Thus alternatively, dividend policy is measured in line with He et al., (2016) by using a dummy variable which quate a value of one for firms that pay dividends and zero for firms that do not pay dividends. Dividend policy is expected to have a negative association with earnings management and tax planning.

3.5.4 Measurement of Control variables

3.5.4.1 Measurement of Firm Size

Many researchers have measured firm size as a log of total assets (Cheng et al., 2016; Abdelwahed, 2018; Abubakar et al., 2021; Rahman & Xiong, 2021). Alternatively, Asmaul and Ibnu (2019) measure firm size by considering total assets as a whole. Nevertheless, Hassanein et al., (2018) adopted a different approach of measuring firm size. They have measured firm size by determining the logarithm of the market value of equity. This study follows Birjandi et al., (2015); Alzoubi (2016), Abdelwahed (2018), and Abubakar et al., (2021) in measuring firm size as a log of total assets. Firm size is presumed to significantly associated with firm value and, in the research model, is presented as SIZE.

3.5.4.2 Measurement of Financial Leverage

Many researchers typically measure financial leverage as the ratio of total debt over total assets (Alzoub 2016; An et al., 2016; Cheng et al., 2016; Abdelwahed 2018; Boachie & Mensah, 2022). Notably, other researchers have used different methods to measure leverage. For instance,

Jacoby, Li & Liu (2019) measured financial leverage as a long-term debt ratio over lagged total assets. An alternative approach was also used by Liu et al., (2014); Hassanein et al., (2018), who measured leverage as the ratio of total debt over total equity. Nevertheless, financial leverage was measured by Ibrahim and Isiaka (2020) as the long-term debt over the market value of equity, while Liu et (2014) estimated it as total liabilities over the equity book value. This study measures financial leverage as the ratio of total debt over total assets in line with (Alzoubi, 2016; Abdelwahed, 2018; Sardo & Serrasqueiro, 2018; Boachie & Mensah, 2022). Financial leverage is expected to have a significant association with firm value and is presented as LEV in the research model.

3.5.4.3 Measurement of Growth Opportunity

Some scholars have calculated a firm's growth opportunity by using Market to Book ratio of equity (Abdelwahed, 2018; Miller 2018; Sardo & Serrasqueiro, 2018) and also by using the sales growth rate (Gonzalez & Garcia 2014; Liu et al., 2014; Bilali 2018; Hassanein et al., 2018). Meanwhile, Bilali et al., (2018) computed it as average growth sales over a period of three years. The market to book value ratio was in favour of many scholars because it links assets' cash flows with the future investment opportunities of the firm (Abdelwahed, 2018). However, since the market book value ratio resembles the Tobin's Q measure for firm performance, and also in order to control the effect of growth opportunity on the firm performance, This study uses sales growth rate in line with Bilali (2018); Hassanein et al., (2018) to measure firm growth opportunity. Firm growth opportunity is presumed to significantly associated with firm value and is presented as GROWTH in the research model.

Table 3. 5: Summary of Variables and Data Source

| S/N | Variable | Label and Unit of Measure | Measurement | Data Source |
|--|--------------------------|---------------------------|---|---|
| Dependent Variables (Firm Performance) | | | | |
| 1 | Return on Assets | ROA (%) | Profit after Interest and Tax divided by Total Assets | Bloomberg, East African countries stocks markets |
| 2 | Tobin's Q | Q (%) | Computed as the market value of assets divided by the book value of assets, whereby the market value of assets will be equal to the book value of assets plus the market value of common equity minus the sum of the book value of common equity. | Bloomberg, East African countries stocks markets |
| Independent Variables (Tax Planning, Earnings Management, Joint effect of Tax Planning & Earnings Management) | | | | |
| 1 | Tax Planning (TP) | BTD (%) | Measure by tax effect book tax difference | Bloomberg, Tax Authority website of the Partner State |
| | | ETR (%) | Measured by effective tax rate which is equal to corporate tax expense minus differed tax divided by pre-tax income | Bloomberg, Tax Authority website of the Partner State |
| 2 | Earnings Management (EM) | AEM (%) | Accrual based earnings management measured by using Modified Jones Model (Dechow et al., 1995) | Bloomberg, East African countries stocks markets |

| S/N | Variable | Label and Unit of Measure | Measurement | Data Source |
|--|--|---------------------------|---|---|
| 3 | Joint Effect of Tax Planning and Earnings Management | REM (%) TP*EM (%) | Real earnings management measured by following Roychowdhury Model (2006) Measured as product of tax planning and earnings management | Bloomberg, East African countries stocks markets Bloomberg, East African countries stocks markets, Tax Authorities website |
| Moderated Variables (Audit Quality, Dividend Policy) | | | | |
| 1 | Audit Quality (AQ) | AFEES ASIZE | Audit fees measured as the natural logarithm of audit fees Measured by using dummy variables where Big 4 Audit firm equal to 1 and Non-Big 4 Audit firm equal to 0 | Bloomberg, East African countries stocks markets Bloomberg, East African countries stocks markets |
| 2 | Dividend Policy | DP | Measured by using dividend pay-out ratio calculated as Dividend over Net Income | Bloomberg, East African countries stocks markets |
| Control Variables (Firm Size, Financial Leverage, Firm Growth Opportunity) | | | | |
| 1 | Firm Size | SIZE | Measured as natural logarithm of total assets | Bloomberg, East African countries stocks markets |
| 2 | Financial Leverage | LEV | Measured as Total debt over Total Assets | Bloomberg, East African countries stocks markets |
| 3 | Firm Growth Opportunity | GROWTH | Growth is measured by taking average growth of the annual sales for the consecutives past three | Bloomberg, East African countries stocks markets |

| S/N | Variable | Label Unit Measure | and of | Measurement | Data Source |
|-----|----------|--------------------------|-----------|-------------|-------------|
| | | | | years | |

Source: Author Compilation.

3.6 Data analysis methods

This study utilizes panel data of non-financial listed firms from East African countries from 2009 to 2019. The panel data sets are examined to establish the relation between dependent and independent variables using the dynamic panel system GMM. The study also employs the ordinary least square (OLS) and fixed effects model to test the sensitivity of the results (Addeh, 2016).

Since the panel data, just like other data containing time series, suffer from non-stationarity behaviours, it is most important to test for the existence of panel unit root and identify the order of integration. Even if the variables are revealed to have the same order, it is very crucial to test for the unique long-term relation between independent and dependent variables using a panel cointegration test (Cho & Ramirez, 2016). The next subsections present the panel unit roots and cointegrations tests as well as fixed and random effects regression approaches for the study.

3.7.1 Panel Unit Root and Co-integration

The presence of the deficiency in estimating models has increased the importance of conducting diagnostic tests. The diagnostic test is applied in order to discover deficiencies such as model misspecification, serial correlation and heteroscedasticity (McKenzie, 1997). As with diagnostic

tests, it is widely accepted that the presence or absence of either or both unit roots and co-integration has a significant impact on modelling strategy and hypothesis testing (McKenzie, 1997). While unit roots test for stationarity of time series data, co-integration tests for the long-run relationship of variables. The panel unit root tests and co-integration tests are explicitly described in the following subsections.

3.6.1.1 Panel Unit Root

This study follows the previous research regarding the panel root testing in panel regression analysis as applied to time series analysis. A vast amount of literature has pioneered the integration of panel unit root and panel cointegration in regression analysis (Baltagi, 2005; Kingu, 2015). They have revealed that the cross-sectional information and pooling of data from individual information is more convincing and powerful than time series analysis (Marno, 2004; Pedroni, 2004; Levin & Olin, 2008). Also, the analysis was mentioned to resolve the problem of a small sample size (Kingu, 2015). Therefore, following the above finding, this study examines the unit root and cointegration in panel regression analysis. The test will help to improve the modelling in panel regression analysis and avoid spurious regression. This is because the panel regression analysis will not be modelled with variables which have different order/sequences of integration (Kingu, 2015).

There are two generations of panel unit root tests named first and second generations. First-generation is based on assumptions that data is independent and identical distributed across firms. The second generation presumes the correlation across units dictates nuisance parameters (Barbieri, 2006). The first-generation limit all cross-sections as independent, while the second

generation limits all as dependent. However, the second generation is criticized for lacking natural order, which makes them inefficient estimators (Quah, 1994). It was also criticized for developing weak parameters as well as becoming inauthentic when pooled OLS is employed in estimating the dependence variable on panel cross-sectional regression (Phillips & Sul, 2003). The cross-sectional dependence significantly affects the research with a small sample size because it reduces the power of the unit root test. Hence, to increase the test's power, the number of observations should also be increased (Baltagi & Kao, 2000).

The panel unit root test is also designed to account for the issue of heterogeneity and homogeneity. Phillips and Sul (2003) introduced the asymptotic theory for testing the heterogeneity coefficient. Parallely to this, they suggested the Modified Hausman test to be used to overcome the homogeneity problem. They also recommended the utilization of a median unbiased estimator to resolve the issue of biases arising from a small sample. Resolving the heterogeneity problem is considered as an added advantage of the panel data since it exploits the weakness of pooling during panel regression even though it could provide misleading results and invalidated inferences (Keong, 2007). Thus, it is advisable to take more precautions when employing the second generation for cross-sectional dependency while testing for homogeneity in non-stationary panels (Bilali 2018).

The panel unit root test is categorized into two roots known as common and individual roots. Individual roots are grounded on the heterogeneity of the autoregressive coefficients, while common roots are grounded on homogeneity of the autoregressive coefficients. In light of the firm individuals' variations, it is most important to address heterogeneity along with the panel

unit tests (Hsiao 2003). However, the unrealistic assumption made on the alternative hypothesis of homogeneity (Baltagi 2005) has resulted into the development of several based models to account for heterogenous such as Maddala and Wu test (1999), Choi test (2001), Hadri test (2000), Levin, Lin and Chu test (2002), and Im, Pesaran, and Shin test (2003).

The above-mentioned analysis features two types of panel unit root tests, which are grounded on assumptions of homogeneity and heterogeneity. Since the study examines the listed firms with different heterogeneity from East African countries, The Im Pesaran and Shin (IPS) will be an ideal model to use instead of the Levin and Lin (LL) test. IPS and LL are reported to have the identical unit root null hypothesis but also a different alternative hypothesis. LL use pooled regression data and is based on the homogeneity of autoregressive coefficients, while IPS is affirmed on the heterogeneity of autoregressive coefficients with no need for pooling data as it is based on the mean of the ADF statistic (Bilali, 2018). The IPS is most preferable to LL because it has superior power and size tests than LL (Maddala & Kim, 2002).

3.6.1.2 Panel Cointegration

After confirming whether the variables are stationary or non-stationary, the study needs to perform the co-integration test. The co-integration test help to identify the existence of a long-run relation between independent variables (earnings management & tax planning) and dependent variable (firm performance). It is mentioned that if data are cointegrated, even though they are nonstationary, it means they are moving together, which reveals the presence of the long-run relation between variables (Lee and Lin, 2010). Otherwise, the residual will be integrated. Cointegration can therefore be interpreted as the long-run property of variables. In the

short run, variables are free to move in different ways depending on the driving force of other dynamic processes (Panchanan, 2019). The significant importance of variables to be co-integrated is the ability of their regression output to forecast and predict future outcomes (Kingu 2015).

Panel Cointegration can be done through several tests, such as the Fisher type test using Johansen methodology (Marno, 2004; Pedroni, 2004; Baltagi, 2005; Levin & Olin, 2008) and the Kao and Pedroni tests based on Engle-Granger (1987) two steps also known as residual-based tests. The unit root Durbin-Watson test can also be employed to test cointegration in the residuals, as described by Sargan and Bhargava (1983). This study uses Pedron tests (Kao & Pedroni, 1999; Pedron, 2004). The Pedroni test is comprehensive because it proposes several tests that capture heterogeneous intercepts and trend coefficients across cross-sections (Panchanan, 2019).

3.7 Regression Estimation Models

This subsection is dedicated to present the regression estimation models employed to investigate the relationship between dependent variables and explanatory variables. Thus, the next subsection draws the inference on OLS, FEM and REM and provides justification for undertaking the GMM estimator.

3.7.1 Ordinary Least Square Method

Ordinary least-squares (OLS) regression is one of the most popular estimation techniques used in social sciences studies. It gives the prediction of values of a continuous dependent variable relative to the value of one or more explanatory variables (Kothari, 2004). OLS is also famous

for dealing with serial correlation and unobserved heterogeneity (Almadi, 2016). So, it might be an ideal estimation method for measuring the direction and strength of the independent relationship between manipulative practices and firm performance. However, OLS is being criticized for suffering from endogeneity problems. It was mentioned that OLS could be appropriate if it is used under restrictive assumptions of autocorrelation, homoscedasticity, normality and multicollinearity (Baltagi, 2005; Gujarati & Porter, 2009).

Considering all the concerns posited above about OLS, this study does not use OLS as the main model but rather as a basic model which aims to test the sensitivity of the results obtained from the main model. Therefore, the study takes the precaution against the mentioned shortcomings of the OLS by conducting several posts and pre-estimations tests such as heteroscedasticity, normality, and multicollinearity test. In this study, the OLS is estimated in the following general form:

$$Y_{it} = \alpha_0 + \alpha_1 X_{it} + v_{it} \dots \dots \dots (3.12)$$

Whereby Y_{it} represents the dependent variable, X_{it} denotes an explanatory variable, $i= 1 \dots n$ firms, $t=1 \dots$, represents a time period, α_0 denotes the constant term, α_1 represents the coefficient of the explanatory variables, and v_{it} denotes the error terms.

3.7.2 The Fixed Effect Model (FEM)

The fixed-effect model (FEM) estimates variables based on OLS by assuming an unobserved firm-specific variable correlates with the independent variables of the regression model. The model assumes that each individual's intercept is a time variant. FEM use an intercept term to

capture the heterogeneity effect (individual firm effects). The slope coefficient of the slope of the regressors does not change (vary) across individuals or over time. (Gujarati & Porter, 2009). The fixed-effect model (FEM) is generally explained using intercept and slope. Thus, the following equation interprets the situation of FEM:

$$Y_{it} = \beta_{1i} + \beta_2 X_{2it} + \beta_3 X_{3it} + u_{it} \dots\dots\dots (3.13)$$

Whereby the subscript i on the intercept β_{1i} ($i = 1,2,3\dots n$) indicates that different companies may have different intercept due to firms specific features (Gujarati & Porter, 2009); Y_{it} denote the dependent variable where $i =$ entity and $t =$ time; X_{it} represents explanatory variables, u_{it} represents an error term. β_{1it} , represent the intercept of each firm or individual which have a time-variant. The given FEM here implies that individuals' intercepts do not vary over time. $\beta_1, \beta_2, \beta_3, \dots$, represent coefficients or slopes of the explanatory variables, which are time-invariant.

In order to allow the fixed effect intercepts to change over time, the dummy variables technique must be used. A least square dummy variable (LSDV) model is generated in the model by introduction of dummy variables using the differential intercept dummies technique. Therefore, the equation is rewritten as follows:

$$Y_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \alpha_4 D_{4i} + \beta_2 X_{2it} + \beta_3 X_{3it} + u_{it} \dots\dots (3.14)$$

Where: $D_{2i} = 1$ if the observation belongs to individual 2, 0 otherwise; $D_{3i} = 1$ if observation belongs to individual 3, 0 otherwise; $D_{4i} = 1$ if the observation belongs to individual 4, 0 otherwise. Since there are four individuals, three dummies were used in order to avoid a dummy variable trap. A dummy variable trap is the situation of perfect collinearity. Hence there is no dummy variable for individual 1. Instead, α_1 represents the intercept for individual 1. $\alpha_2, \alpha_3, \alpha_4$ are the differential intercept coefficients affixed to dummy variables. The coefficients tend to inform by how much the intercept of individuals 2, 3, and 4 differ from the intercept of individual 1, which is the reference individual. So, α_2 tells the magnitude of difference of individual 2 from the reference individual and thus $\alpha_1 + \alpha_2$ is the real intercept for individual 2, the same computation is applied to other intercepts (Gujarati & Porter, 2009).

Explicitly, Equation 3.14 has 4 individuals, though only three dummy variables were included in the model by following the $m - 1$ rule. However, suppose someone aims to have an intercept value for each individual. In that case, he/she can do so by introducing the four dummy variables on the original regression and hence dropping the common intercept. Otherwise, he/she will fall into the dummy variable trap.

The time effect: The same way the dummy variables were used in the previous equation to account for the individual effect, time effect can be used instead (Gujarati & Porter, 2009). Time effect can be allowed to capture the activities that shift over time due to change in technology, government regulations, tax policies and other external effects. Hence Time effect can be easily

captured by introducing time dummies one for each year. Thus, the model below illustrates how the time effect can be captured:

$$Y_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \alpha_4 D_{4i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \gamma_1 D_{2i} X_{2it} + \gamma_2 D_{2i} X_{3it} + \gamma_3 D_{3i} X_{2it} + \gamma_4 D_{3i} X_{3it} + \gamma_5 D_{4i} X_{2it} + \gamma_6 D_{4i} X_{3it} + u_{it} \quad (3.15)$$

While the previous equation 3.14 was known as a one-way fixed effect in virtue of allowing the individual effect to occur through introduction of only the individual dummy variables, the equation 3.26 is known as a two-way effect model because it allows both individual and time effects. The number of interactive terms in equation 3.26 must be equal to the product of dummy variables and the number of explanatory variables. Notably, If the number of dummy variables is excessively increasing in the model, it will cause a number of problems. Firstly, it will significantly reduce the degree of freedom. Secondly, it will increase the likelihood of multicollinearity, which could lead to difficulties in estimating several parameters (Gujarati & Porter, 2009).

In general, many complications will arise by combining together individual and time effects in the model. Hence in order to overcome it, the assumptions should reflect the error term u_{it} and the issues of heteroscedasticity and autocorrelation should also be considered. However, the FEM model has shortcomings that need to be addressed. Studies on the relationship between manipulative practice and firm performance that applied the fixed models have suffered from the endogeneity problem (Baltagi, 2005; Gujarati & Porter, 2009). In order to overcome the

endogeneity problem, this study uses the Generalised Method of Moments (GMM) as the main model, while FEM is used to examine the sensitivity of the results.

3.7.3 The Generalised Method of Moments (GMM)

Most of the studies using OLS to establish the relationship between dependent and independent variables suffered from the endogeneity problem caused by omitted variables, simultaneity and measurement error (El-Diri, 2018). This happened due to the utilization of data with a finite time periods and large cross-section dimensions (Panchanan, 2019). OLS assumes that the explanatory variables should be independent of the error term. However, due to the presence of two-way causation between dependent variables and explanatory variables, this condition is deemed to be unsatisfactory and produces biased and inconsistent estimation coefficients (Embong and Hossein 2018). To resolve the endogeneity problem, some of the studies that have used the fixed-effect model (FEM), such as Vintila and Gherghina (2014), have introduced many instrument variables in the model. FEM estimation would be consistent only if the explanatory variables are free from the past influence of the dependent variables (Embong & Hossein, 2018).

Studies that have utilized FEM such as (Giesselmann & Schmidt-Catran, 2020), face a high likelihood of confronting simultaneity and measurement error problems as well as unobserved heterogeneity. That happens because FEM alone cannot resolve endogeneity problems. It tends to generate biased estimates (Baltagi, 2005). Hence, the FEM model has to include many instrumental variables (IV) to manage the correlation between regressors and the error term.

However, the inclusion of many IVs in the model is cautioned of causing another problem related to identifying the valid instrument, which impacts dependent and independent variables (Gujarati & Porter, 2009). Therefore, the perfect solution for this problem is arguably to be the use of a generalised method of moment (Bilali, 2018; El Diri, 2019; Panchanan, 2019). The generalised method of the moment is argued to provide unbiased and consistent parameter estimates for the studies which have utilized data with finite time periods and large cross-section dimensions (Panchanan, 2019). That means it is the perfect estimator for FEM. Also, unlike the traditional FEM, GMM allows the present value of explanatory variables to be related to the past value of the dependent variables (Embong & Hossein, 2018).

As previously mentioned, the potential source of the endogeneity is simultaneity, measurement error, unobservable heterogeneity and dynamic endogeneity, which is the likelihood of the current value of the explanatory variable to be the function of the previous dependent variables (Wintoki et al., 2012; Embong & Hosseini, 2018). As the firm's future performance depends on last information about earnings, there is a high possibility of a correlation between the previous determinant factors of earnings management and firm performance. Thus, this leads to the risk of having a dynamic endogeneity problem that could dynamically affect firm performance accuracy as a dependent variable. Likewise, this study's other source of endogeneity could be unobserved heterogeneity that might simultaneously influence the relationship between manipulative practice as explanatory variables and firm performance. For instance, the quality of accounting policy, corporate governance factors, and tax policies might influence both manipulative practice and firm performance (Embong & Hosseini, 2018).

This study employs GMM estimator to examine the impact of earnings management and tax planning manipulations on firm performance for the non-financial listed firms from EAC. The use of GMM helps to overcome the endogeneity problem that FEM cannot control. There are two approaches to solving the endogeneity problem by using GMM, namely Dynamic Panel Difference GMM and Dynamic Panel System GMM. However, the dynamic panel difference GMM was criticised by Arellano and Bover (1995) as cited in Embong and Hosseini (2018) for providing weak instruments in small sample size and larger variances asymptotically that yield biased parameter estimates. Therefore, this study applies the dynamic panel system two-step GMM estimator proposed by Blundell and Bond (1998) because it is much better than the dynamic panel difference in terms of asymptotic and finite sample properties (Embong and Hossein 2018). Also, the two-step GMM is considered to be more efficient and robust in dealing with heteroscedasticity and autocorrelation (Chen, 2019).

The dynamic panel system GMM model for this study will be as presented below:

$$Y_{it} = \alpha + k_p y_{it-1} + \beta_i X_{it} + \gamma_i Z_{it} + \lambda_i + \varepsilon_{it} \quad (3.16)$$

Where: Y_{it} denote firm performance for firm i at time t , y_{it-1} is the lagged firm performance, X_{it} represent explanatory variables (independent variables and moderated variables), Z_{it} represent control variables (Firm size, financial leverage and growth opportunity), β_i and γ_i denotes

vector coefficients for explanatory and control variables respectively, λ_i firm level fixed effect and ε_{it} the error term.

3.8 Research Instruments

The study uses STATA to estimate the quantitative analysis of this study. According to Leckie and Charlton (2013), STATA is the widely used statistical general-purpose package which offers numerous standards and more advanced commands for statistical modelling. STATA also has advanced tools for combining and reshaping large multilevel datasets, managing variables at different levels of data hierarchies and managing specialized forms of multivariate data such as panel/longitudinal data (Leckie & Charlton, 2013).

3.9 Chapter Summary

This chapter has presented the methodological approach that is adopted in order to meet the research objectives. It starts by describing the philosophical approach of the study in which the study follows the positivism paradigm. It further explains the development of measurement models, data collection and sampling. The chapter has also mentioned the importance of testing data stationarity and long-run relationships by using unit root tests and cointegration tests. The estimation of the panel data regression for the study was derived considering the heterogeneity among the member states of EAC. The study has employed the dynamic panel system GMM-two steps to overcome endogenous problems arising from unobserved factors of the EAC. firm-specific characteristics.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This chapter is pivoted on reporting the empirical results derived using estimation models presented in chapter 3. The results are then organized in subsections as follows; subsection 4.2 summarises the descriptive statistics of this study; subsection 4.3 presents the normality test and data transformation, subsection 4.4 provides correlation analysis, subsection 4.5 summarises multicollinearity, subsection 4.6 gives heteroscedasticity test, subsection 4.7 discusses the panel unit root tests and the panel cointegration tests; subsection 4.8 presents and interprets the regression estimates for Ordinary Least Square (OLS), fixed effect and the dynamic panel model GMM, subsection 4.9 provide the summary of the entire chapter.

4.2 Descriptive Statistics

The descriptive statistics of the study presented in this section, briefly summarises the level of tax planning, earnings management, and firm performance in the EAC region. This study has 516 observations from 48 non-financial listed firms among EAC partner states from 2009-to 2019. The size of observations is more generous in providing an overview status of listed companies in EAC. The summary of descriptive statistics for study's variables including mean, standard deviation, minimum, maximum, skewness, and kurtosis is presented in Table 4.1.

Table 4. 1: Description Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max | Skewness | Kurtosis |
|----------|-----|--------|--------------|--------|---------|-----------|----------|
| ROA | 516 | 0.112 | 0.774 | -8.09 | 3.086 | -5.022645 | 45.94548 |
| TOBIN Q | 516 | 1.876 | 2.503 | 0.14 | 26.82 | 6.186654 | 52.90865 |
| AEM | 516 | 0 | 0.476 | -0.222 | 6.704 | 10.6234 | 135.1308 |
| REM | 516 | 0 | 0.448 | -1.233 | 7.682 | 10.30694 | 174.7665 |
| TP2_ETR | 516 | -0.011 | 15.401 | -90.89 | 326.309 | 17.98707 | 394.6459 |
| TP1_BTD | 516 | -0.045 | 0.339 | -6.704 | 0.933 | -15.15672 | 291.3613 |
| AQ1 | 516 | 11.264 | 1.182 | 6.01 | 17.343 | 0.0307668 | 7.711054 |
| DPI | 516 | 0.558 | 3.861 | -4.402 | 74.949 | 16.50621 | 296.497 |
| F_SIZE | 516 | 7.942 | 0.697 | 6.041 | 9.595 | 0.1047759 | 2.657129 |
| LEV | 516 | 0.545 | 0.495 | 0.036 | 7.809 | 8.065676 | 102.568 |
| GROWTH | 516 | 0.014 | 0.248 | -0.999 | 1.747 | 0.9683111 | 10.62312 |

Source: Author computation through STATA.

The notation: ROA = Return on Asset (ratio), AEM = Accrual based Earnings Management (ratio), REM = Real Earnings Management (ratio), TP1_BTD= Tax planning measured by Book Tax Difference (ratio), TP2_ETR = Tax planning measure by Effective Tax Rate (ratio), AQ1 = Audit Quality measure by audit fees (In), DPI= Dividend Policy measure by dividend pay-out (ratio) F size = Firm size (In), LEV = Leverage (ratio), GROWTH = Firm growth opportunity (ratio).

The results in Table 4.1 show that firms have an average return on asset (ROA) of 0.112, equivalent to 11.2%, whereby the minimum and maximum return on assets are -809% and 308.6%, respectively. Apparently, the average Tobin Q stands at 187.6%, with a minimum and maximum of 14% and 268.2%, respectively. The result of skewness indicates that ROA is highly skewed on the negative side, while Tobin Q is highly skewed on the positive side. The kurtosis values reveal that some observations have very high ROA and Tobin Q. The descriptive statistics on ROA indicate that firms in EAC generate averagely positive returns. However, the degree of variation of inter-firm returns is very high, as witnessed by having high skewness and kurtosis.

The results also suggest that firms have higher market capitalization observed through higher average Tobin Q.

On the other hand, both accrual-based earnings management (AEM) and real earnings management (REM) have a mean approximately equal to zero. This indicates that the two variables have the same variation on the negative and positive sides, and the data fit the earnings management model well. The zero mean of earnings management proxies is consistent with results reported by Bhuiyan et al. (2013) and Almasarwah (2016). The minimum and maximum values for AEM are -22.2% and 670.4%, respectively, while the minimum and maximum values for REM are -123.3% and 768.2%, respectively. Both AEM and REM are highly skewed on the right side, whereas the kurtosis results indicate that a piling up of the values around the mean of the two variables is very high. Thus, AEM and REM are more peaked than the normal distribution.

Furthermore, as reported in Table 4.1, EAC listed firms have an average effective tax rate of -1.1%, whereby the minimum effective tax rate is -90.89% and the maximum is 3263.09%. The average book-tax difference for the firms is -4.5%, with minimum and maximum rates of -670.4 and 93.3%, respectively. The negative minimum and positive maximum effective tax rates indicate that some EAC firms recognize tax liabilities while others record tax assets. The skewness results indicate that ETR is highly skewed on the right side while BTD is highly skewed on the left side. Also, the value of kurtosis implies that both ETR and BTD are extreme peaked higher than normal. The effective tax rate and book-tax difference results postulate that

EAC firms have a similar average negative return on average. However, the results indicate that firms in EAC experience high volatility in the effective tax rate, which is evident by a reported high standard deviation of 1500%. On average, firms have a higher effective tax rate (1.1%) than book-tax difference (-4.5%).

From 2009 to 2019, The EAC listed firms had an average audit fee of a natural logarithm of 11.264 and a dividend payout of 55.8%. The highest-paid audit fees have a natural logarithm of 17.343, while the lowest-paid has a natural logarithm of 6.01. Similarly, the firm's highest dividend paid out is 7494.9%, and the lowest is -440.2%. This abnormal percentage in dividend policy is identical to the results reported by Chen (2019) on the firm size. In his explanation, Chen (2019) reveals that an abnormal maximum or minimum value of a variable is caused by the presence of outliers in the data set. Therefore, the outliers should be controlled before proceeding with further analysis.

On the other hand, the skewness results for audit quality indicate the data are skewed within the normal, while the results for dividend policy suggest that the data are highly skewed to the right side. The kurtosis results for audit quality and dividend policy reveal that the variables peaked higher than normal; however, it is extremely higher for dividend policy. Additionally, descriptive statistics report-controlled variables yield results as follows; average firm size has a natural logarithm of 7.942, average leverage is 54.5%, and average firm growth opportunity is 1.4%. The three control variables are skewed to the right side and have kurtosis that peaked higher than normal.

Generally, the overall observation of the data from the descriptive statistics indicates abnormal behaviour. This is confirmed by the presence of extreme high kurtosis and skewness than the normal distribution in the results of the descriptive statistics. Since the results indicate that data are not normally distributed, data transformation and outliers' controllable methods (reciprocal, square root, natural log and winsorizing) are then suggested to normalize the data (Field, 2009).

4.3 Normality Tests and Data Transformation

The study employs the commonly used technique termed winsorization of data to reduce the impact of outliers (Yu & Ashton, 2015; Chen, 2019). Winsorization of the data is a statistical transformation performed by limiting extreme higher or lower values in the data to reduce the possible effect of spurious outliers (Chen, 2019). The tail values are then set equivalent to some specified percentage of the statistical data. For instance, a 10% winsorization of data will replace all observations below and above 10th and 90th percentile with the 10th and 90th percentile.

Thus, to control the outliers, the variables return on asset (ROA) is winsorized at 7.5th and 92.5th percentile. Tax planning measured by book-tax difference (TP1_BTD) and tax planning measured by the effective tax rate (TP2_ETR) are winsorized at the 10th and 90th percentile. The variable accrual-based earnings management (AEM) is winsorized at the 9th and 91st percentile, while the variable real earnings management (REM) is winsorized at the 8.5th and 91.5th percentile, the variable dividend policy (DP1) is winsorized at the 6th and 94th percentile, the variable leverage (LEV) and firm growth opportunity (GROWTH) are winsorized at the 4.5th and 95.5th percentile and the variable auditing quality 1 (AQ1) is winsorized at the 3rd and 97th

percentile. The level of percentile on each variable is set based on the assumption of normal distribution of data by overseeing their results of kurtosis and skewness (Templeton & Burney, 2017). Therefore, each variable is set to an appropriate percentile to fit its skewness and kurtosis within or close to a required range of ± 2 and ± 3 respectively. Furthermore, this thesis used the natural logarithm of Tobin Q to control their extreme higher positive skewness and substantial deviation from a normal distribution. Therefore, after transforming the data, the normality was improved whereby the skewness and kurtosis were close to ± 2 and ± 3 respectively as shown in Table 4.2.

Table 4. 2: Transformation of Data

| Untransformed Variables | | | | | | | | |
|--------------------------------|--------|-----|----------|--------------|----------|----------|------------|----------|
| Variable | | Obs | Mean | Std. Dev. | Min | Max | Skewness | Kurtosis |
| ROA | | 516 | 0.112 | 0.774 | -8.09 | 3.086 | -5.022645 | 45.94548 |
| TOBIN Q | | 516 | 1.876 | 2.503 | 0.14 | 26.82 | 6.186654 | 52.90865 |
| AEM | | 516 | 0 | 0.476 | -0.222 | 6.704 | 10.6234 | 135.1308 |
| REM | | 516 | 0 | 0.448 | -1.233 | 7.682 | 10.30694 | 174.7665 |
| TP2_ETR | | 516 | -0.011 | 15.401 | -90.89 | 326.309 | 17.98707 | 394.6459 |
| TP1_BTD | | 516 | -0.045 | 0.339 | -6.704 | 0.933 | -15.15672 | 291.3613 |
| AQ1 | | 516 | 11.264 | 1.182 | 6.01 | 17.343 | 0.0307668 | 7.711054 |
| DP1 | | 516 | 0.558 | 3.861 | -4.402 | 74.949 | 16.50621 | 296.497 |
| F_SIZE | | 516 | 7.942 | 0.697 | 6.041 | 9.595 | 0.1047759 | 2.657129 |
| LEV | | 516 | 0.545 | 0.495 | 0.036 | 7.809 | 8.065676 | 102.568 |
| GROWTH | | 516 | 0.014 | 0.248 | -0.999 | 1.747 | 0.9683111 | 10.62312 |
| Transformed Variables | | | | | | | | |
| ROA | WS92.5 | 516 | 0.173856 | 0.287157 | -0.41353 | 0.675662 | -0.1479604 | 2.80361 |
| TOBIN Q | Ln | 516 | 0.283576 | 0.742085 | -1.96611 | 3.289148 | 0.7914734 | 4.264597 |
| AEM | WS91 | 516 | -0.05749 | 0.08703 | -0.14866 | 0.134192 | 1.037024 | 2.959725 |
| REM | WS91.5 | 516 | -0.00158 | 0.148992 | -0.29589 | 0.274157 | -0.0925173 | 2.850117 |
| TP2_ETR | WS90 | 516 | -0.00581 | 0.426235 | -0.96741 | 0.401746 | -1.236117 | 3.347541 |
| TP1_BTD | WS90 | 516 | -0.01671 | 0.041243 | -0.1166 | 0.032895 | -1.343057 | 4.059105 |
| AQ1 | WS97 | 516 | 11.26525 | 0.918851 | 9.23066 | 12.9707 | -0.1885278 | 2.705917 |
| DP1 | WS94 | 516 | 0.308188 | 0.369485 | -0.00218 | 1.18666 | 1.068617 | 2.940786 |
| LEV | WS95.5 | 516 | 0.50591 | 0.244354 | 0.188927 | 1.08841 | 0.760614 | 2.783369 |
| GROWTH | WS95.5 | 516 | 0.006301 | 0.186491 | -0.40655 | 0.373212 | -0.2023148 | 2.926892 |

Source: Author computation through STATA.

Notes: Ln = Natural logarithm of the variable; WS90 means the variable were winsorized at 10th and 90th percentile that means the value below 10th percentile was set at 10th percentile and the values above 90th percentile were set at 90th percentile; Same applied to WS91 (Winsorized at 9th and 91st percentile); WS91.5 (Winsorized at 8.5th and 91.5st percentile); WS92.5 (Winsorized at 7.5th and 92.5st percentile); WS94 (Winsorized at 6th and 94th percentile); WS95.5 (Winsorized at 4.5th and 95.5st percentile) and WS97 (Winsorized at 3th and 97th percentile).

4.4 Correlation Analysis

The correlation analysis was conducted in order to detect any multicollinearity between dependent variables (return on assets and Tobin Q) and explanatory variables (accrued based earnings management, real earnings management, tax planning, audit quality, dividend policy, firm size, leverage and firm growth opportunity). This bivariate correlation was conducted following previous researchers (Otman, 2014; Addeh, 2016) by using the Pearson correlation.

According to the correlation coefficients shown in table 4.3, there is no correlation between return on assets and all the explanatory variables except firm size, whereas $p < 0.05$. The result confirmed a significant correlation between Tobin Q and accrued based earnings management, tax planning measured by book-tax difference, firm size, and growth opportunity. However, there is no correlation between Tobin Q and the rest of the variables. Although a significant correlation was identified for the mentioned few variables, all were observed to be minimum the threshold benchmark of 0.8 (Gujarat & Porter, 2009, p 338), whereby a maximum significant variable has a value of 0.049, and a minimum has a value of -0.069. The Pearson correlation matrix also reveals that the explanatory variables are all independent, as confirmed by the mean VIF results of 1.155 presented in the next section. Therefore, there is no evidence of a serious problem.

Table 4. 3 Correlation Matrix

| Variables | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | -10 | -11 |
|-------------|---------|----------|----------|----------|---------|----------|---------|---------|-------|----------|-----|
| (1) ROA | 1 | | | | | | | | | | |
| (2) TOBIN_Q | 0.293 | 1 | | | | | | | | | |
| (3) REM | -0.208 | -0.258 | 1 | | | | | | | | |
| (4) AEM | -0.133 | 0.036** | 0.052* | 1 | | | | | | | |
| (5) TP1_BTD | 0.658 | -0.024** | -0.05** | -0.116 | 1 | | | | | | |
| (6) TP2_ETR | 0.146 | 0.222 | -0.144 | -0.011** | -0.04** | 1 | | | | | |
| (7) AQ1 | 0.148 | 0.209 | -0.029** | -0.149 | 0.028** | 0.175 | 1 | | | | |
| (8) DP1 | 0.247 | 0.267 | -0.134 | -0.171 | 0.179 | 0.108 | 0.151 | 1 | | | |
| (9) F_SIZE | 0.028** | -0.069** | -0.011** | -0.06* | -0.02** | 0.218 | 0.322 | 0.03** | 1 | | |
| (10) LEV | -0.427 | 0.128 | 0.087* | 0.289 | -0.33 | 0.002*** | -0.086* | -0.292 | 0.174 | 1 | |
| (11) GROWTH | 0.183 | 0.019** | -0.016** | -0.033** | 0.156 | 0.029** | 0.049** | 0.018** | 0.149 | -0.039** | 1 |

Notes: The asterisks ***, ** and * represent significance at 1%, 5%, and 10% levels respectively.

4.5 Multicollinearity

A multicollinearity test is conducted to examine the presence of a linear relationship between explanatory variables. Gujarati (2003) indicated that there would be severe collinearity only if the correlation of coefficients between continuous explanatory variables exceeds 0.8. Based on the Variance Inflation and Tolerance Factor (VIF), Kennedy (1992) reported that multicollinearity will be a serious problem when the VIF of the continuous explanatory variables exceeds 10.

Therefore, to detect the multicollinearity in this study, the VIF was calculated as shown in table 4.4. The results of VIF revealed that the correlation in this study is lower than 10 (that is 1.155), which indicates no serious multicollinearity. The largest VIF was observed on leverage (1.344) and the smallest one on real earnings management (1.041).

Table 4. 4: Variance Inflation Factor (VIF)

| | VIF | 1/VIF |
|----------|--------------|-------|
| LEV | 1.344 | 0.744 |
| F SIZE | 1.243 | 0.805 |
| AQ1 | 1.178 | 0.849 |
| TP1 BTD | 1.164 | 0.859 |
| DP1 | 1.151 | 0.869 |
| AEM | 1.125 | 0.889 |
| TP2 ETR | 1.097 | 0.912 |
| GROWTH | 1.051 | 0.952 |
| REM | 1.041 | 0.961 |
| Mean VIF | 1.155 | . |

4.6 Heteroscedasticity

One common assumption underpinning linear regression, specifically the Ordinary Least Square (OLS) method, is homoscedasticity (Gujarati, 2012). The multiple regression model is assumed to be homoscedastic when the residual error variance is constant from the value of the explanatory variables (Hox, 2010). Thus, if there is no constant variance for the residual errors, heteroscedasticity will occur (Weiss, 2016). If the heteroscedasticity is not controlled in model estimation, it will result in inconsistent coefficients that are also inefficient and lead to biased standard errors (Baltagi, 2008). The heteroscedasticity will result in a higher-than-expected value of F-statistics and T-statistics; this occurs because the variance and standard errors will be underestimated by the OLS method (Addeh, 2016).

This study followed other researchers (Addeh, 2019) to use the Breusch and Pagan (1979) test to detect heteroscedasticity in the estimated regression models. The estimated Breusch and Pagan results from table 4.5 reveal a significant degree of heteroscedasticity in some models. Since heteroscedasticity is indicated in all models, robust regression is employed to control its effects.

Table 4. 5: Heteroskedasticity Test by Breusch Pagan

| | ROA | | TOBIN Q | |
|---------|------------|----------|------------|----------|
| | Chi Square | P-value | Chi Square | P-value |
| Model 1 | 9.51 | 0.002** | 13.03 | 0.000*** |
| Model 2 | 2 | 0.157 | 6.1 | 0.014** |
| Model 3 | 2.92 | 0.088 | 13.22 | 0.000*** |
| Model 4 | 14.07 | 0.000*** | 9.52 | 0.002** |

Notes: The asterisks ***, ** and * represent significance at 1%, 5%, and 10% levels respectively. Model 1: tests the relationship between earnings management and firm performance, Model 2: tests the relationship between tax planning and firm performance, Model 3; tests the relationship between the joint effect of earnings management, tax planning and firm performance; Model 4 estimates the moderated effect of dividend policy and audit quality.

4.7 Panel Unit Root Test and Panel Cointegration

Since the panel data, like other data containing time series, suffer from non-stationarity behaviours, it is most important to test the presence of stationarity among variables by using the panel unit root tests. Also, it is essential to investigate the long-run relationship between explanatory and dependent variables by identifying the order of integration. Therefore, this section reports the results of the panel unit root and cointegration tests.

4.7.1 Panel Unit root test

Since this thesis uses the unbalance panel data from listed east African firms with different heterogeneity, the study then follows the past literature (Kingu, 2015; Basesa, 2018) using Im-Pesaran-Shin to conduct a panel unit root test. Most of the panel unit root tests, such as Levin-Lin-Chu, Fisher type etc., need the data to be strongly balanced. However, the Im-Pesaran-Shin

test fits well with both balanced and unbalanced panel data. Also, the IPS is preferable to other tests because it has large power and size than others (Maddala & Kim, 2002). Table 4.6 shows the output of the panel unit root test conducted.

Table 4. 6: Unit Root Test- Im-Pesaran-Shin

| Variables | Statistic | P-value | 1st Difference |
|-----------|-----------|-----------|----------------|
| ROA | -1.9183 | 0.0275** | |
| TOBIN Q | 0.5415 | 0.7059 | 0.0000*** |
| AEM | -4.756 | 0.0000*** | |
| REM | -3.992 | 0.0000*** | |
| TP1_BTD | -1.0942 | 0.0261** | |
| TP2_ETR | -2.8745 | 0.002** | |
| AQ1 | -2.7806 | 0.0027** | |
| LEV | 0.6292 | 0.7354 | 0.0000*** |
| Growth | -2.8369 | 0.0020** | |
| F_Size | -0.6328 | 0.0000*** | |

The results presented in Table 4.6 reveal that all variables except Tobin's Q and leverage do not have a unit root, which means data are stationary. The presence of stationarity at the level indicates that data are predictable on temporary or permanent shocks and marked fit for future projections.

However, the presence of unit root at the level on Tobin Q and leverage enforced to perform the first difference for them. Thus, after performing the first difference test, all variables turn stationary and significant on both intercept and trends. That means any shock effects will be

quickly neutralized and become part of the system. Therefore, the data for this thesis is valid for forecasting and policy implications.

4.7.2 Panel cointegration

The existence of data stationarity expresses the importance of examining the long-run relationship between variables from the EAC listed firms. The Pedroni cointegration tests were used to account for the heterogeneity problem among countries in EAC. The results of the Pedroni tests are shown in Table 4.7.

Table 4. 7: Cointegration Test - Pedroni

| | ROA | TOBIN Q |
|----------------------------|-----------|-----------|
| Variables | P-value | P-value |
| Modified Phillips-Perron t | 0.0000*** | 0.0000*** |
| Phillips-Perron t | 0.0000*** | 0.0000*** |
| Augmented Dickey-Fuller t | 0.0006*** | 0.0000*** |

The panel cointegration test is performed based on the fact that the presence of data stationarity should also reflect the presence of data cointegration, which indicates a long-run relationship between variables. Lee and Lin (2010) argued that the stationarity of data usual reflect the presence of data cointegration, just the same as when the dependent variable is related to independent variables. Furthermore, it is normal for the relationship between variables to diverge in the short run, but subsequently, they will readjust in the long run (Lee, et al., 2011; Basesa, 2018).

According to the result from Table 4.7, rejection of the null hypothesis of no cointegration for all Pedroni tests has accepted the preference of the alternative hypothesis. That means the variables have a long-run relationship. The two dependent measures, Tobin's Q and ROA, shown in Table 4.3, have rejected the null hypothesis of no cointegration at less than a 1% significance level. This implies a solid long-run relationship among the variables.

4.8 Regression Estimations

This section is dedicated to present regression estimations of model 1 to model 4 as developed in previous chapter (Chapter 3). The study employed three estimation models. The first two (OLS and Fixed effect) are the base models that aim to evaluate the sensitivity of the results. The third estimation model (the dynamic two steps system GMM) is the main model which aims to make a statistical inference. The OLS and fixed effect models are further refined using robust to overcome the heteroscedasticity observed in the previous section.

Since the study utilizes unbalanced panel data, the dynamic two steps system GMM model is an ideal model to be employed because it overcomes all forms of endogeneity associated with unbalanced panel data. The GMM, as discussed in chapter 3, is a superior model for preventing the possibility of rejecting the correct hypothesis or accepting the incorrect hypothesis. It is also efficient in estimating consistency and unbiased results. The lagged dependent variable is thereon included as an instrument in the dynamic two steps system GMM to overcome a problem of unobserved heterogeneity. Moreover, consistent with Wintoki et al., (2012); Man (2018), the

lagged dependent variable was also used to capture the effect of the past performance on the current performance.

4.8.1 Regression estimation of firm performance and earnings management.

This subsection estimates the relationship between firm performance (ROA and Tobin Q) and earnings management (AEM and REM) with the prediction of control variables (firm size, leverage and firm growth opportunity). It begins by presenting the results for OLS and Fixed Effect and then followed by GMM as a main model.

(i) Regression results for OLS and Fixed Effect Model

The OLS results from table 4.8 show an identical result with GMM on the relationship between REM and ROA. It indicated a negative relationship between the variables (ROA and REM) at a 1% significant level. OLS further reports a negative relationship between ROA and accrued earnings management (AEM) at a 5% significant level. The control variables also produce identical outcomes with GMM in influencing the dependent variables. Leverage showed a significant positive relationship on all three dependent variables at a 1% significant level. Firm growth opportunities are also significantly related to ROA in a positive direction at a 1% significant level.

The fixed effect shows completely different results from GMM and OLS on the relationship between dependent and independent variables. None of the two dependent variables (ROA and Tobin Q) has significant connections with REM. Also, there are insignificant relationships

between ROA and AEM. Nevertheless, it reports a negative, statistically insignificant association between Tobin Q and AEM at a 10% significant level. However, OLS reports similar results with GMM on the relationship between two control variables (firm growth opportunity & leverage) and firm performance. The results show that leverage is positively related to Tobin Q at a 1% significant level, firm growth opportunity has a positive relationship with ROA at a 1% significant level, but the firm size is negatively related to Tobin Q at a 1% significant level.

The variation in estimation between fixed effects and the other two estimated models indicates that fixed effect is not an appropriate model for equation one. The results are arguably different if the random effect model could be employed. However, since the GMM is the main model for this study, the outcomes of GMM are thereon considered to be the most appropriate and helpful in making statistical inferences. Therefore, the study concludes based on the dynamic two-step system GMM model results.

(ii) Regression results for the dynamic two steps system GMM

The fundamental exogeneity assumption underlying the relationship between firm performance and earnings management is that real earning managements and accrued earnings management are exogenous with respect to firm performance (ROA & Tobin Q). Under this assumption, Arellano and Bond- (1991) propose two key tests to be done. The first test is for checking second-order serial correlation, whereas its primary concern is to check whether there is enough number of lags in the model to control the dynamic aspect of the empirical relationship. The second test is over-identification (Hansen test) developed by Sargan (1958) and Hansen (1982),

which is mainly conducted in order to test the validity of the instrument to be included in the models.

According to the first test, the validity of the GMM instrument variable (GMM IV) assumption requires the residual in the first difference AR (1) to report a serial correlation, but the second difference AR (2) should not report any serial correlation. Based on the results reported in table 4.8, AR 2 has yielded a p-value of 0.809 and 0.781 for ROA and Tobin Q, respectively, which means the condition for the first test is held. The result accepted the null hypothesis for AR (1) and rejected the null hypothesis for the AR (2) for all two dependent variables models implying that there is a correlation for the first difference but no correlation for the second difference. Therefore, the result of AR suggests one lag of endogenous variable to be used in constructing the GMM instruments for this study.

Likewise, under the second test of over-identification, the instrument's validity is confirmed when the null hypothesis is accepted (at P-value >5%). The Hansen test results reported in table 4.8 reveal a p-value of 0.262 and 0.41 for ROA and Tobin Q. Therefore, the results accept the null hypothesis for all models. Therefore, the result indicates that the ROA and Tobin Q models are appropriately specified and include a valid instrument set.

The dynamic two steps system GMM results on the relationship between firm performance and earnings management are consistent with OLS results by indicating a significant negative relationship between ROA and REM at a 5% significant level with the coefficient of -0.234. The

GMM also show a negative relationship between Tobin Q and AEM at a 5% significant level with a coefficient of -0.345. More specifically, the results show that every 1 unit increase in the REM and AEM leads to a decrease in 0.0234 and 0.345 ROA and Tobin Q, respectively. The statistical significance of lagged dependent variable of ROA at a 1% significant level and the statistical insignificance of lagged dependent variable for Tobin q at a 10% significant level justified the instrument's validity and suggested that the model offers stable estimates for consistent, unbiased results (Flannery & Hankins, 2013; Basesa, 2018). On the other hand, leverage showed a strong positive influence on Tobin Q at a 1% significant level and a negative relationship on ROA at a 5% significant level. Nevertheless, firm growth opportunities showed a significant positive relationship with ROA.

Table 4. 8: Regression estimation of firm performance and earnings management

| | OLS | | FEM | | GMM sys | |
|------------------|-----------|---------|---------|-----------|----------|----------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/ L.TOBIN | | | | | 0.438*** | -0.148* |
| | | | | | [0.105] | [0.081] |
| REM | -0.356*** | -0.155 | -0.173 | -0.189 | -0.234** | -0.128 |
| | [0.092] | [0.117] | [0.157] | [0.188] | [0.097] | [0.117] |
| AEM | -0.323** | -0.312 | -0.058 | -0.358* | -0.07 | -0.345** |
| | [0.163] | [0.245] | [0.176] | [0.185] | [0.167] | [0.172] |
| FIRM SIZE | -0.007 | -0.026 | -0.054 | -0.793*** | -0.006 | -0.054 |
| | [0.021] | [0.025] | [0.103] | [0.212] | [0.03] | [0.036] |
| LEVERAGE | -0.213** | 1.35*** | -0.128 | 1.212*** | -0.152** | 1.006*** |
| | [0.132] | [0.269] | [0.081] | [0.218] | [0.078] | [0.3] |
| GROWTH | 0.283*** | -0.062 | 0.27*** | -0.083 | 0.154** | -0.149 |
| | [0.076] | [0.112] | [0.053] | [0.098] | [0.062] | [0.123] |
| Constant | 0.203 | 0.186 | 0.597 | 6.287*** | 0.119 | 0.386 |
| | [0.167] | [0.188] | [0.821] | [1.683] | [0.229] | [0.286] |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.1 | 0.185 | 0.063 | 0.277 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.006 |
| AR (2) (p-value) | | | | | 0.809 | 0.781 |
| Sargan | | | | | 0.001 | 0.000 |
| Hansen | | | | | 0.262 | 0.41 |

Notes: The table reports regression coefficients and Standard error (in bracket). The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. AR (1) and AR (2) are first-order and second-order serial correlations in the first differenced residuals. Also, it reports the Sargan and Hansen test in p-value. The notation: L.ROA and L. TOBIN = lagged performance, REM = Real earnings management, AEM = Accrued based earnings management.

4.8.2 Estimation of tax planning and firm value

This subsection aims to analyze regression estimation on the relationship between tax planning and two dependent variables (ROA and TOBIN Q). Tax planning in this model is measured by book-tax difference (BTD).

(i) Regression results for OLS and Fixed Effect Model

Based on the results reported in table 4.9, OLS reports consistent results with GMM on the relationship between tax planning and ROA. It indicated that tax planning positively impacts ROA at a 1% significant level. More specifically, it demonstrates that 1 unit of Tax planning will increase 4.67 units of ROA, keeping other factors constant. But there is no statistical relationship between tax planning and Tobin Q. OLS also reports identical results with GMM on the relationship between leverage and Tobin Q. The results show a positive relationship between leverage and Tobin Q at a 1% significant level. Similarly, firm growth opportunity positively correlates with ROA at a 5% significant level.

The fixed effect estimator presents highly consistent results with those from GMM and OLS on the relationship between tax planning and Tobin Q. The results show a positive relationship between tax planning and ROA at a 1% significant level. Nevertheless, there is a positive relationship between leverage and Tobin Q, while firm size reveals a significant negative relationship with ROA. Furthermore, the relationship between firm growth opportunity and ROA is statistical positive at a 1% significant level.

(ii) Regression results for the dynamic two steps system GMM

The GMM model treats the explanatory variable (Tax planning, firm size, leverage, and growth opportunity) as exogenous and the lagged firm performance as endogenous. The two specified tests have been conducted, whereas the AR (2) test indicates a p-value of 0.323 and 0.813 for ROA and Tobin Q, respectively, implying that the model has accepted the null hypothesis of no second-order serial correlation. The results also report the Hansen test with a p-value of 0.387 and 0.478 for ROA and Tobin Q, which means that model cannot reject the null hypothesis of the validity of the instruments for ROA and Tobin Q. Therefore, the AR (2) test has confirmed one lag to be enough for all models while the over-identification test of instruments specified the models for ROA and Tobin Q to be appropriate and contain valid instruments.

The dynamic two-step GMM as the main model indicates a statistically significant relationship between tax planning and all dependent variables. It indicates a positive correlation between tax planning and ROA at a 1% significant level with a coefficient of 4.089. The results suggest that a unit increase in Tax planning led to an increase in 4.089 units of ROA, respectively. The results also reveal a statistically negative relationship between tax planning and Tobin Q at a 5% significant level with a coefficient of -0.656. It suggests that a unit increase in tax planning led to a decrease in 0.656 units of Tobin Q. Moreover, the results indicate a positive relationship between leverage and Tobin Q at a 1% significant level.

| | OLS | | FEM | | GMM sys | |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/ L.TOBIN | | | | | 0.215*** | -0.151* |
| | | | | | <i>[0.07]</i> | <i>[0.081]</i> |
| TP1_BTD | 4.467*** | -0.508 | 4.132*** | -0.29 | 4.089*** | -0.656** |
| | <i>[0.246]</i> | <i>[0.368]</i> | <i>[0.195]</i> | <i>[0.393]</i> | <i>0.403</i> | <i>[0.329]</i> |
| FIRM SIZE | 0.008 | -0.026 | -0.15*** | -0.8*** | 0.016 | -0.052 |
| | <i>[0.015]</i> | <i>[0.024]</i> | <i>[0.052]</i> | <i>[0.221]</i> | <i>[0.032]</i> | <i>[0.038]</i> |
| LEVERAGE | -0.053 | 1.298*** | -0.039 | 1.174*** | 0.014 | 0.878*** |
| | <i>[0.08]</i> | <i>[0.262]</i> | <i>[0.059]</i> | <i>[0.21]</i> | <i>[0.086]</i> | <i>[0.248]</i> |
| GROWTH | 0.135** | -0.033 | 0.12*** | -0.063 | 0.07* | -0.131 |
| | <i>[0.056]</i> | <i>[0.114]</i> | <i>[0.043]</i> | <i>[0.1]</i> | <i>[0.042]</i> | <i>[0.125]</i> |
| Constant | 0.184 | 0.193 | 1.433*** | 6.356*** | 0.05 | 0.374 |
| | <i>[0.116]</i> | <i>[0.188]</i> | <i>0.414</i> | <i>[1.756]</i> | <i>[0.244]</i> | <i>[0.294]</i> |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.447 | 0.179 | 0.546 | 0.277 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.006 |
| AR (2) (p-value) | | | | | 0.323 | 0.813 |
| Sargan | | | | | 0.000 | 0.000 |
| Hansen | | | | | 0.387 | 0.478 |

Table 4. 9: Relationship between firm performance and tax planning

Notes: The table reports regression coefficients and Standard error (in bracket). The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. AR (1) and AR (2) are first-order and second-order serial correlations in the first differenced residuals. Also, it reports the Sargan and Hansen test in p-value. The notation: L.ROA and L. TOBIN = lagged performance, TP1_BTD= Tax planning measured by the book-tax difference.

4.8.3 The joint effect of earning management and tax planning on firm performance

This subsection is pivoted to determine the joint effect of earnings management and tax planning on firm performance. The joint effect between tax planning and earnings management is measured by taking the product of tax planning and accrued based earnings management (AEMTP) and the product of tax planning and real earnings management (REMTP). The results thereon are presented in Table 4.10.

(i) Regression results for OLS and Fixed Effect Model

Table 4.10 showed that both OLS and fixed effect model fails to confirm the result reported by GMM on the relationship between the joint effect of tax planning & earnings management and firm performance. None of the OLS and Fixed effects indicates a statistical relationship between the joint effect of tax planning and accrued based earnings management and all the dependent variables. They confirmed an individual positive relationship between tax planning and ROA at a 1% significant level. Also, OLS confirmed an individual negative relationship between REM and ROA at a 1% significant level. Nevertheless, OLS confirmed a statistically insignificant relationship between Tobin Q and REM at a 10% significant level. Unlike GMM, OLS reports a statistically insignificant negative relationship between Tobin Q and AEM at a 10% significant level. Like GMM, the fixed effect indicated a statistically negative association between Tobin Q and AEM at a 5% significant level.

(ii) Regression results for the dynamic two steps system GMM

The explanatory variables treated as exogenous are real earnings management, accrued earnings management, tax planning, the interaction of tax planning and real earnings management, the interaction of tax planning and accrued based earnings management, firm size, leverage and firm growth opportunity while the endogenous is lagged firm performance. The AR (2) test results across all three dependent variables yield a p-value of 0.404 and 0.955 for ROA and Tobin Q, respectively. The results also reveal the Hansen test with a p-value of 0.407 and 0.347 for ROA and Tobin Q. Both conditions for AR (1) and (2) and over-identification test of instruments have been met similarly with the previous models in other subsections.

The GMM shows a negative statistically relationship between the joint effect of REMTP and Tobin Q at a 5% significant level with a coefficient of -6.046. More specifically, the results show that every 1 unit increase in the joint effect of REM & TP leads to a decrease in 6.046 Tobin Q. In addition, GMM also confirmed a significant negative relationship between AEM and Tobin Q at a 5% significant level with a coefficient of -0.629. Nevertheless, there is a statistically insignificant negative relationship between Tobin Q and REM and Tobin Q and TP both at a 10% significant level with a coefficient of -0.242.

As the control variables, firm growth and leverage show a significant relationship with firm performance. Leverage reveals a negative association with ROA at a 5% significant level with a coefficient of -0.152, while also it indicates a positive relationship with Tobin Q at a 1%

significant level with a coefficient of 0.263. On the other hand, firm growth showed a positive relationship with ROA at a 5% significant level with a coefficient of 0.15.

Table 4. 10: Joint effect of tax planning and earnings management on firm performance

| | OLS | | FEM | | GMM sys | |
|------------------|----------|---------|----------|----------|----------|----------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/L.TOBIN | | | | | 0.227*** | -0.16** |
| | | | | | [0.077] | [0.077] |
| REM | -0.32*** | -0.224* | -0.102 | -0.277 | -0.106 | -0.242* |
| | [0.072] | [0.137] | [0.074] | [0.206] | [0.089] | [0.134] |
| AEM | -0.102 | -0.411* | 0 | -0.432** | -0.058 | -0.404** |
| | [0.124] | [0.270] | [0.1] | [0.209] | [0.113] | [0.19] |
| TP1_BT D | 4.454*** | -0.575 | 4.098*** | -0.317 | 4.035*** | -0.629* |
| | [0.257] | [0.396] | [0.205] | [0.386] | [0.448] | [0.348] |
| REMT P1 | -0.058 | -4.11 | 0.572 | -4.479 | -1.338 | -6.046** |
| | [1.722] | [2.589] | [1.394] | [3.051] | [1.822] | [2.75] |
| AEMTP1 | 1.817 | -3.06 | -0.37 | -2.541 | -0.834 | -1.083 |
| | [2.49] | [4.386] | [2.005] | [3.435] | [1.954] | [3.18] |
| FIRM SIZE | 0.007 | -0.027 | -0.148 | -0.78*** | 0.017 | -0.055 |
| | [0.014] | [0.025] | [0.052] | [0.215] | [0.031] | [0.038] |
| LEVERAGE | -0.038 | 1.33*** | -0.037 | 1.21*** | 0.022 | 0.92*** |
| | [0.078] | [0.262] | [0.06] | [0.223] | [0.084] | [0.301] |
| GROWTH | 0.118** | -0.032 | 0.118 | -0.06 | 0.076* | -0.118 |
| | [0.055] | [0.116] | [0.043] | [0.101] | [0.045] | [0.131] |
| Constant | 0.181 | 0.177 | 1.41*** | 6.15*** | 0.04 | 0.379 |
| | [0.113] | [0.187] | [0.416] | [1.707] | [0.24] | [0.301] |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.447 | 0.192 | 0.549 | 0.282 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.007 |
| AR (2) (p-value) | | | | | 0.404 | 0.955 |
| Sargan | | | | | 0.002 | 0.000 |
| Hansen | | | | | 0.407 | 0.347 |

Notes: The table reports regression coefficients and Standard error [in bracket]. The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. AR (1) and AR (2) are first order and second order serial correlation in the first differenced residuals, also it reports Sargan and Hansen test in p-value The notation: L.ROA and L. TOBIN = lagged performance, REMTP1= Joint effect of tax planning and real earnings management, AEMTP1= Joint effect of tax planning and accrued based earnings management.

4.8.4 The regression estimations of moderated effects

This subsection examines the moderated effect of dividend policy and audit quality on Earnings Management and Tax planning. Like the previous subsections, the moderated effect is measured by determining the product of audit quality (measured by audit fees) and each of the following: Tax planning, accrued based earnings management and real earnings management. Also, the product between dividend policy (measured by dividend payout) and each of the following: Tax planning, accrued based earnings management and real earnings management.

Table 4.11 presents the results of the moderating effects of the audit quality and dividend policy on the relationship between earnings management (accrued based earnings management and real earnings management), tax planning and firm performance (ROA and Tobin Q) after controlling firm size, financial leverage and firm growth opportunity.

(i) Regression results for OLS and Fixed Effect Model

OLS produce identical results with GMM regarding the moderated effect of dividend policy on the relationship between accrued earnings management and Tobin Q. The OLS results show that the interaction between dividend policy and accrued based earnings management has a statistically significant adverse effect on the Tobin Q. Moreover, OLS yield consistent results with GMM by revealing that the interaction between tax planning and dividend policy has a statistically significant negative effect on the ROA. This means that the presence of dividend policy as the moderating variable, the accrued based earnings management and tax planning will negatively impact the firm's performance (Tobin Q and ROA, respectively). In addition, dividend

policy demonstrates an individual negative impact on the firm performance (Tobin Q) at a 1% significant level.

In line with OLS, Fixed effect models also produce identical results with GMM by showing that the interaction between accrued earnings management and dividend policy negatively influences the Tobin Q (ROA and Tobin Q) at a 5% significant level. It further reports a negative effect on the interaction between accrued earnings management and dividend policy and ROA. Also, Like GMM. The fixed-effect model indicates that the interaction between tax planning and dividend policy has a significant negative relationship with ROA. However, unlike GMM, the fixed-effects model shows a significant adverse effect on the interaction between audit quality and accrued earnings management and the firm performance (Tobin Q) at a 5% significant level. Furthermore, dividend policy indicates the individual negative effect on firm performance (ROA and Tobin Q) at a 1% significant level.

(ii) Regression results for the dynamic two steps system GMM

The GMM model treats the explanatory variable (real earnings management, accrued earnings management, Tax planning, audit quality, dividend policy, interaction between audit quality and two earnings management variables, interaction between audit quality and tax planning, interaction between dividend policy and two earnings management variables, interaction between dividend policy and tax planning firm size, leverage and firm growth opportunity) as exogeneous and the lagged firm performance as endogenous. The AR (2) test has yielded a p-value of 0.938 and 0.602 for ROA and Tobin Q, respectively, while also the Hansen test has

reported a p-value of 0.187 and 0.366 for ROA and Tobin Q respectively. Consistently with the previous subsections, conditions for AR (1) & (2) and over-identification test of instruments have been met.

GMM presents the negative relationship between the firm performance (Tobin Q) and the interaction of Accrued earnings management and Dividend policy (AEMDP) at a 1% significant level with a coefficient of -1.906. The result suggests that an increase in 1 unit of AEMDP is managing to negatively moderate firm performance by 1.906. Also, GMM indicates that the interaction between tax planning and dividend policy significantly negatively affects the firm performance (ROA) at a 1% significant level with a coefficient of -4.28. Furthermore, GMM reveals a significant individual positive relationship between audit quality and firm performance (ROA) and a significant negative relationship between dividend policy and firm performance (ROA, Tobin Q).

Out of the three control variables, only leverage has a significant positive relationship with Tobin Q at a 1% significant level. Since leverage is the indication of company creditworthiness, the results imply that an increase in financial leverage increases firm performance. Hence, EAC firms rely on leverage to improve their performance.

Table 4. 11: Regression estimations on moderated variables

| | OLS | | FEM | | GMM sys | |
|------------------|-----------|-----------|-----------|-----------|----------|-----------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/ L.TOBIN | | | | | 0.22*** | -0.185*** |
| | | | | | [0.071] | [0.067] |
| REM | -0.894 | -2.015 | -0.103 | -0.701 | -0.944 | -1.891 |
| | [1.057] | [1.361] | [1.146] | [1.449] | [1.818] | [1.319] |
| AEM | -0.505 | 4.305 | -0.678 | 4.036** | -0.951 | 0.048 |
| | [1.206] | [3.546] | [1.009] | [1.596] | [1.451] | [2.142] |
| TP1_BTD | 2.585*** | -1.205 | 0.796 | 0.701 | -0.884 | 2.672 |
| | [2.186] | [4.355] | [3.096] | [2.664] | [4.145] | [3.693] |
| AQ1 | 0.04 | -0.02 | 0.013 | 0.019 | 0.05** | 0.032 |
| | [0.013] | [0.037] | [0.034] | [0.035] | [0.021] | [0.027] |
| DPI | 0.006 | -0.144*** | -0.149*** | -0.165*** | -0.086** | -0.188*** |
| | [0.041] | [0.05] | [0.052] | [0.058] | [0.041] | [0.058] |
| REMAQ1 | 0.057 | 0.164 | 0.002 | 0.037 | 0.082 | 0.166 |
| | [0.092] | [0.12] | [0.103] | [0.137] | [0.159] | [0.123] |
| AEMAQ1 | 0.049 | -0.39 | 0.075 | -0.364** | 0.094 | 0.003 |
| | [0.11] | [0.308] | [0.09] | [0.15] | [0.13] | [0.188] |
| REMDP1 | -0.122 | -0.031 | 0.023 | 0.415 | -0.23 | -0.294 |
| | [0.196] | [0.303] | [0.222] | [0.421] | [0.267] | [0.301] |
| AEMDP1 | -0.309 | -1.582*** | -0.753** | -1.622** | -0.391 | -1.906*** |
| | [0.325] | [0.573] | [0.34] | [0.676] | [0.25] | [0.58] |
| TPAQ1 | 0.193 | 0.076 | 0.342 | -0.076 | 0.474 | -0.295 |
| | [0.196] | [0.384] | [0.275] | [0.242] | [0.374] | [0.321] |
| TPDP1 | -3.724*** | -0.274 | -3.538*** | -0.206 | -4.28*** | -0.002 |
| | [0.916] | [1.165] | [0.897] | [1.149] | [1.238] | [1.202] |
| FIRM SIZE | -0.01 | -0.029 | -0.153* | -0.794*** | 0.002 | -0.075 |
| | [0.015] | [0.03] | [0.089] | [0.227] | [0.025] | [0.051] |
| LEVERAGE | -0.059 | 1.354*** | -0.045 | 1.227*** | -0.006 | 0.881*** |
| | [0.078] | [0.269] | [0.065] | [0.222] | [0.073] | [0.246] |
| GROWTH | 0.096* | -0.006 | 0.082 | -0.052*** | 0.055 | -0.163 |
| | [0.056] | [0.11] | [0.056] | [0.095] | [0.049] | [0.121] |
| Constant | -0.14 | 0.444 | 1.352* | 6.106*** | -0.369 | 0.212 |
| | [0.178] | [0.307] | [0.767] | [1.636] | [0.347] | [0.364] |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.447 | 0.213 | 0.586 | 0.3 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.007 |
| AR (2) (p-value) | | | | | 0.938 | 0.602 |
| Sargan | | | | | 0.001 | 0.000 |
| Hansen | | | | | 0.187 | 0.366 |

Notes: The table reports regression coefficients and Standard error (in bracket). The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. AQ1= Audit Quality, DP1= Dividend Policy, REMAQ1= interaction between real earnings management and Audit Quality, AEMAQ1= interaction between accrued based earnings management and Audit Quality, REMDP1= interaction between real earnings management and dividend policy, AEMDP1= interaction between accrued based earnings management and Dividend Policy, TPAQ1= interaction between tax planning and Audit Quality and TPDP1= interaction between tax planning and dividend policy.

4.9 Robustness Check

This study conducts a robustness check on some estimations reported in previous sections. The robustness check was performed using alternative tax planning, audit quality, and dividend policy proxies. The robustness check aims to evaluate the sensitivity of the result when an alternative measure is used.

4.9.1 Robustness Check on Tax planning

As discussed in chapter 3, the main tax planning proxy is measured using book-tax difference, and the robustness check is conducted using the effective tax rate. Thus, this section reported the results of equation 2 when tax planning is measured by using the effective tax rate.

As reported in table 4.12, the coefficients for 1-year lagged firm performance remain the same as reported in table 4.9. This suggests that the past effect of the firm performance still has the same impact in controlling the unobserved historical factors in the association between tax planning and firm performance. Notably, the result reported by the GMM model indicates that the tax planning measured by the effective tax rate remains statistically significant on Tobin Q. However, the relationship between the effective tax rate and Tobin Q is negative. This implies that the firm performance's sensitivity decreases when an effective tax rate is used to measure tax planning. The overall result is consistent with results reported using book-tax difference as the

proxy of tax planning in Table 4.9. Therefore, it provides sufficient evidence that tax planning is related to firm performance.

Table 4. 12: Robustness check for Model 2 by using Effective Tax Rate

| | OLS | | FEM | | GMMsys | |
|------------------|----------|----------|----------|---------|----------|----------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/ L.TOBIN | | | | | 0.437*** | -0.139* |
| | | | | | [0.108] | [0.081] |
| TP2_ETR | 0.093*** | 0.073 | -0.004 | 0.036 | 0.047 | 0.092*** |
| | [0.023] | [0.049] | [0.041] | [0.034] | [0.038] | [0.032] |
| FIRM SIZE | -0.018 | -0.034 | -0.061 | -0.801 | -0.015 | -0.066* |
| | [0.021] | [0.028] | [0.103] | [0.22] | [0.029] | [0.037] |
| LEVERAGE | -0.251* | 1.318*** | -0.137 | 1.18 | -0.164** | 0.917*** |
| | [0.128] | [0.269] | [0.082] | [0.21] | [0.081] | [0.245] |
| GROWTH | 0.3*** | -0.052 | 0.275*** | -0.072 | 0.16*** | -0.146 |
| | [0.077] | [0.112] | [0.052] | [0.099] | [0.06] | [0.119] |
| Constant | 0.312* | 0.27 | 0.655 | 6.369 | 0.196 | 0.502* |
| | [0.169] | [0.222] | [0.822] | [1.747] | [0.224] | [0.29] |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.069 | 0.182 | 0.056 | 0.27 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.005 |
| AR (2) (p-value) | | | | | 0.618 | 0.637 |
| Sargan | | | | | 0.000 | 0.000 |
| Hansen | | | | | 0.176 | 0.507 |

Notes: The table reports regression coefficients and Standard error (in bracket). The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. The notation: L.ROA and L. TOBIN = lagged performance, TP1_ETR= Tax planning measured by an effective tax rate.

4.9.2 Robustness Check on Moderated Variables

The robustness on moderated variables is performed by measuring audit quality using dummy variables of big 4s and non-big 4s audited firms, also measuring dividend policy using dummy variables of firms which pay dividends and firms which do not pay a dividend.

The result of the lagged firm performance reported in Table 4.13 is still identical to the one reported in Table 4.11. Furthermore, table 4.13 reported the consistent result with the previous proxy on the relationship between the interaction of accruals earnings management and dividend policy (AEMDP) and firm performance. The results reveal a negative statistically significant association between AEMDP and firm performance measured by ROA for OLS, fixed effect and GMM models. The results also confirm a significant negative relationship between the interaction of tax planning and dividend policy (TPDP2) and firm performance measured by ROA for all models (OLS, fixed effect and GMM).

Table 4. 13: Robustness Check on Moderated Variables

| | OLS | | FEM | | GMM sys | |
|------------------|-----------|----------|-----------|-----------|-----------|----------|
| | ROA | TOBIN Q | ROA | TOBIN Q | ROA | TOBIN Q |
| L.ROA/ L.TOBIN | | | | | 0.207*** | -0.173** |
| | | | | | [0.08] | [0.074] |
| REM | 0.099 | -0.212 | 0.064 | -0.324 | 0.09 | -0.266 |
| | [0.272] | [0.455] | [0.256] | [0.373] | [0.452] | [0.354] |
| AEM | 0.06 | 0.527 | 0.196 | 0.403 | -0.015 | 0.108 |
| | [0.294] | [0.675] | [0.213] | [0.409] | [0.31] | [0.371] |
| TP1_BT D | 5.042*** | -0.552 | 4.731*** | -0.437 | 4.921*** | -0.693 |
| | [0.54] | [0.915] | [0.557] | [0.531] | [0.568] | [0.698] |
| AQ2 | 0.117*** | -0.052 | 0.119* | -0.036 | 0.061 | -0.004 |
| | [0.033] | [0.091] | [0.066] | [0.048] | [0.038] | [0.054] |
| DP2 | 0.002 | -0.021 | -0.058* | -0.036 | -0.019 | -0.019 |
| | [0.028] | [0.049] | [0.033] | [0.059] | [0.03] | [0.05] |
| REMAQ2 | -0.294 | 0.023 | -0.101 | -0.08 | 0.03 | 0.247 |
| | [0.261] | [0.444] | [0.28] | [0.402] | [0.47] | [0.509] |
| AEMAQ2 | 0.457* | -0.875 | 0.372 | -0.768* | 0.357 | -0.453 |
| | [0.271] | [0.712] | [0.233] | [0.395] | [0.312] | [0.349] |
| REMDP2 | -0.172 | 0.048 | -0.123 | 0.294 | -0.257** | -0.132 |
| | [0.147] | [0.272] | [0.158] | [0.406] | [0.129] | [0.354] |
| AEMDP2 | -0.619** | -0.316 | -0.623*** | -0.283 | -0.381** | -0.118 |
| | [0.241] | [0.428] | [0.174] | [0.363] | [0.149] | [0.432] |
| TPAQ2 | -0.047 | -0.296 | 0.249 | 0.025 | -0.106 | -0.396 |
| | [0.541] | [1.128] | [0.505] | [0.594] | [0.627] | [0.991] |
| TPDP2 | -1.411*** | 0.532 | -1.506*** | 0.353 | -1.549*** | 0.741 |
| | [0.466] | [0.807] | [0.449] | [0.807] | [0.536] | [1.256] |
| FIRM SIZE | -0.004 | -0.022 | -0.17** | -0.781*** | 0.016 | -0.048 |
| | [0.014] | [0.027] | [0.083] | [0.212] | [0.03] | [0.04] |
| LEVERAGE | -0.031 | 1.351*** | -0.05 | 1.216*** | 0.006 | 0.909*** |
| | [0.077] | [0.272] | [0.068] | [0.235] | [0.087] | [0.317] |
| GROWTH | 0.083 | -0.008 | 0.104* | -0.051 | 0.063 | -0.13 |
| | [0.054] | [0.12] | [0.055] | [0.103] | [0.044] | [0.128] |
| Constant | 0.171 | 0.193 | 1.533** | 6.233*** | 0.016 | 0.335 |
| | [0.111] | [0.177] | [0.643] | [1.676] | [0.236] | [0.305] |
| Number of Obs | 516 | 516 | 516 | 516 | 516 | 516 |
| R-squared | 0.447 | 0.195 | 0.585 | 0.285 | | |
| AR (1) (p-value) | | | | | 0.000 | 0.007 |
| AR (2) (p-value) | | | | | 0.548 | 0.856 |
| Sargan | | | | | 0.002 | 0.000 |
| Hansen | | | | | 0.21 | 0.198 |

Notes: The table reports regression coefficients and Standard error (in bracket). The asterisks ***, ** and * represent significance at 1%, 5%, and 10% level respectively. AQ1= Audit Quality measured by dummy of Big 4s

and non-big 4s, DP1= Dividend Policy measured by dummy of firm paid dividend and firm which do not pay dividend, REMAQ1= interaction between real earnings management and Audit Quality, AEMAQ1= interaction between accrued based earnings management and Audit Quality, REMDP1= interaction between real earnings management and dividend policy, AEMDP1= interaction between accrued based earnings management and Dividend Policy, TPAQ1= interaction between tax planning and Audit Quality and TPDP1= interaction between tax planning and dividend policy.

4.10 Summary of Hypotheses Results

The hypotheses developed in chapter 2 were based on four parts. First, to test the relationship between earnings management and firm performance. Second, to test the relationship between tax planning and firm performance. Third, to test the relationship between the joint effect of tax planning and earnings management and firm performance and fourth, to test the moderated effect of dividend policy and audit quality. Notably, the summary of hypothesis results as provided in Table 4.14 indicate that the study results support seven out of nine hypotheses.

Table 4. 14: Summary of Hypotheses Results

| Hypothesis | Description | Result |
|------------|---|---------------------|
| H1 | Earnings management is related to firm performance | Supported |
| H1a | Accrued based earnings management is related to firm performance | Supported |
| H1b | Real earnings management is related to firm performance | Supported |
| H2 | Tax planning is related to firm performance | Supported |
| H3 | There is a relationship between the joint effect of tax planning, earning management and firm performance | Partially Supported |
| H4a | The relationship between tax planning and firm performance is moderated by dividend policy | Supported |
| H4b | The relationship between tax planning and firm performance is moderated by audit quality | Not Supported |
| H5a | The relationship between earnings management and firm performance is moderated by audit quality | Not Supported |
| H5b | The relationship between earnings management and firm performance is moderated by dividend policy | Supported |

4.11 Chapter Summary

This chapter begins with descriptive statistics to provide an understanding of the data set and variables. The descriptive statistics revealed that data were not normally distributed, so the normalization of data was done by using natural logarithm and winsorization. The data were then tested for correlation and multicollinearity using the spearman matrix and VIF. Both correlation and multicollinearity do not reveal a serious problem. Panel unit root to check the stationarity of data was conducted using IPS tests, and panel cointegration to investigate the long-run relationship of variables was established using Pedroni cointegration tests. The results indicate that almost all data are stationary, and those which are not stationary can be stationary at the first difference. The results also show the existence of the long-run relationship between variables, implying suitable empirical results for forecasting and statistical inference.

The dynamic two-step GMM was used to encounter endogenous problems arising from the omitted variables, unobserved heterogeneity and simultaneity. This is because firm performance is dynamic endogenous, which can be predicted by past performance. The use of the GMM provides an assurance for consistent and unbiased estimates to prevent the possibility of reporting the spurious result. Apart from the main model, the study also used OLS and fixed effect to evaluate the sensitivity of the results.

The dependent variables' accounting and market performance measures concluded in producing mixed results on the relationship between earnings management and firm performance, tax planning and firm performance, and the joint effect of earnings management and tax planning and firm performance. The impact of earnings management and tax planning on firm

performance was observed to be moderated by dividend policy. Both audit quality and dividend have been observed to weaken the relationship between earnings management, tax planning and firm performance. Furthermore, leverage and firm growth opportunity as the control variables, and to a large extent, they appear to influence firm performance. The robustness check was also conducted using an alternative measure of tax planning, audit quality and dividend policy to analyze the sensitivity of the results.

CHAPTER 5

DISCUSSION OF FINDINGS AND CONCLUSION

5.0 Introduction

This chapter is devoted to a discussion of finding and concluded remarks relative to the results presented in chapter four. The chapter is classified into five subsections: subsection 5.1 highlights summary of the results and answers to the hypotheses. Subsection 5.2 presents discussion of findings. Subsection 5.3 reports the contribution and implications of the study. Subsection 5.4 discuss the study limitations, whereas; subsection 5.5 suggests the areas for further research and subsection 5.6 provide concluded remarks and a summary.

5.1 Summary of the results and answers to the hypotheses

This research is guided by four objectives which aim to examine the impact of tax planning and earnings manipulation on the firm performance while simultaneously considering dividend policy and audit quality as moderating influencing. The study employs the dynamic panel system two steps (GMM) to establish whether firms in EAC partner states manage earnings and plan tax liability to increase or decrease firm value. The results reported in Table 4.8 to Table 4.11 reveal that firms from EAC partner states manage their earnings and tax to affect firms' value during the study period. Generally, the results show that tax planning and earnings management reduce firm value. The results also find evidence that an increase in interaction between dividend policy and tax planning and earnings management decreases firms' value. It suggests that the relationship between tax planning and earnings management, and firm performance is moderated

by dividend policy. On the contrary, audit quality is found to be ineffective in moderating the impact of tax planning and earnings management on firm performance.

5.2 Discussion of Major Findings

This section aims to discuss the finding based on this study's four objectives and research questions. The finding is discussed in connection with the hypotheses developed in chapter 2 and the theories underlying the study.

5.2.1 Relationship between Firm performance and Earnings Management

One of the study's objectives is to examine the relationship between earnings management and firm performance. The results from Table 4.8 show a negative relationship between real earnings management (REM) and firm performance based on the accounting measure (ROA) and a negative relationship between accrual-based earnings management and firm performance based on the market measure (Tobin Q). Thus, the results support hypothesis 1 (H1). However, hypothesis H1a, which predicts the relationship between accrued earnings management (AEM) and firm performance, is supported by a market measure of firm performance (Tobin Q), and hypothesis H1b, which predicts the relationship between real earnings management (REM) and firm performance, is supported by accounting measures of firms performance (ROA). The market measure forecast performance based on forward-looking, and the accounting measure estimates performance based on backwards-looking (Al-Matari et al., 2014; Selvam et al., 2016; Chen 2019).

Firms in EAC exercise REM in the short-run as indicated by accounting measures because REM is exercised during normal business operations via stock repurchases, reduction of cost per unit and Research & Development (R&D) expenditure (Burnett et al., 2012). Meanwhile, AEM which is exercised through changing valuations methods, or under-estimation or delaying written-off assets, can only be done at the end of the financial period, which is usually in a period not less than a year. Ideally, it is done when managers have already known a significant portion of the whole financial performance, so they use it to send a signal to attract market reaction (Tang et al., 2013). This is why firms in EAC exercise AEM in the long run, as have been detected by market measures of firm performance.

The interesting part of the results is the evidence of simultaneous utilization of REM and AEM to decrease firm performance in EAC partner states. Other related research has documented one side-impact (Either on AEM or REM) and even mixed results on the relationship between real earnings management, accrued based earnings, and firm performance (Al-Shattarat et al., 2018; Khuong, Tran & Thu, 2019; Nobakht & Acar, 2021). Most importantly, the finding exposes earnings management to reduce firm performance both in the long term and short term. The long-term negative performance of the EAC firms is consistent with Tang et al. (2015), who posited that those firms involved in manipulating REM and AEM are more likely to report low performance in the future. This finding further confirms the results of Almasarwah (2018) and Dakhllalh et al. (2020), who documented a negative relationship between both types of earnings management and firm performance.

The aggressive use of earnings management is reported to deteriorate firm financial health and consequently implicate its going concern and survival (Sharif & Azim, 2021). Evidence shows that many failing firms usually practice high manipulative earnings with negative firm performance to conceal their financial distress (Bisogno & De Luca, 2015). Recently some firms in EAC, such as Mumias sugar, Uchumi Supermarket and Nakumati, have suffered from financial difficulties and even collapsed. Therefore, the finding of this study may highlight factors influencing the failure and eventual collapse of those firms. In addition, the negative earnings management is also reported to mislead investors' perceptions because managers like to report high quality of accruals, which turn out to decrease firm value (Siladjaja et al., 2018). This implies that shareholders from EAC listed firms are being misled by their managers through an unrealistic performance of their firms.

Real earnings management refers to deliberate actions taken by management to manipulate reported earnings through actual business transactions or operations. While real earnings management may temporarily boost reported earnings, it can have negative implications for firm value in the short run due to legal and regulatory risk (Omar et al., 2014). Real earnings management practices can violate accounting standards or regulatory requirements. If these manipulations are identified by auditors, regulators, or other external parties, the company may face legal consequences, such as fines, penalties, or lawsuits. These risks increase uncertainty and can negatively affect firm value. Real earnings management practices are also often unsustainable in the long run. Once the manipulation is discovered or the underlying transactions

unwind, there can be a significant negative impact on earnings. Investors may anticipate this reversal and discount the firm's value accordingly, leading to a decline in firm value.

Accrued earnings management, on the other hand, involves manipulating the timing or recognition of accruals, such as revenues, expenses, or reserves, to influence reported earnings. While these practices may temporarily impact reported earnings, they can have detrimental effects on firm value in the long run due to the following reasons: Accrued earnings management can distort the true financial performance of a company by manipulating the timing of revenue recognition or expense allocation (Ubesie et al., 2020). Over time, these distortions can create an inaccurate representation of the company's profitability and financial health. Investors and stakeholders rely on reliable financial information to assess the long-term prospects of a firm. When financial performance is artificially inflated or manipulated, it can lead to a decrease in firm value.

Additionally, accrued earnings management can distort the allocation of resources within a company. Management may be incentivized to engage in short-term earnings manipulation at the expense of long-term value creation. This misallocation of resources, such as underinvestment in research and development or capital expenditures, can hinder future growth prospects and decrease firm value. Parallely to this, accrued earnings management can lower the quality of earnings by introducing volatility and unpredictability. When investors perceive the earnings as less reliable or subject to manipulation, it can erode confidence in the company's financial

reporting. Lower-quality earnings can negatively impact firm value as investors discount the earnings stream or demand a higher risk premium.

The existence of harmful, manipulative activities in EAC listed firms, while most firms report positive earnings in their financial reports, is in line with agency theory. The finding reveals that managers manipulate earnings to deceive their shareholders due to agency problems between them (Amidu et al., 2019). Specifically, Agency Theory discloses that one of the impacts of earnings management on firms with more severe agency problems is reporting lower firm value (Abdelwahed, 2018). The results also support Signalling Theory by indicating that managers take advantage of the access information to mislead their investors. They usually hide the firm's actual economic value and display unrealistic firm future performance to gain market reaction (Prior et al., 2008; Maylanova, 2015).

5.2.2 Relationship between firm performance and tax planning

Hypothesis 2 (H2) tests whether tax planning is related to firm performance. The results from Table 4.9 support H2 by revealing the strong relationship between tax planning and firm performance. More specifically, the results show a positive relationship between tax planning and accounting measure of firm performance, affirming the Khaoula and Moez (2019). At the same time, there is a negative relationship between tax planning and market measure of firm performance, which supports the finding of Oyeyemi and Babatunde (2016), and Farjin et al. (2018). That implies that tax planning yields a higher return in the short run but yields a lower return in the long run. The result also supports the finding of Lestari and Wardhani (2015),

Tarmidi and Murwaningsari (2019), and Bhagiawan and Mukhlisin (2020) by indicating that firms involved in the manipulation of earnings by using tax planning may succeed in the short term. However, they are more likely to report poor performance in the future.

The plausible explanation of the negative relationship between tax planning and firm performance documented from EAC was provided by Chukwudi et al., (2020) who stated that the negative relationship is highly associated with the difference in purpose between income statements tax expense and federal income statement tax payable. The financial report aims to provide a true economic view of the firm, while firms' intention on federal tax payable is to reduce the explicit tax payable to the authority. It also implies that firms prefer to lower their tax rates while taking tax positions that are not easily overturned by tax authorities in the long run (Abdelfattah 2020).

Aggressive tax planning, such as engaging in complex tax schemes or using tax havens, can attract negative publicity and damage a company's reputation. This negative perception may lead to a loss of customer trust and investor confidence and harm the overall brand image. As a result, the firm's value may decline due to reduced future cash flows and potential boycotts. The negative relationship between tax planning and firm value can also be attributed by investor perception and transparency. Aggressive tax planning can be seen as a sign of poor governance, lack of transparency, and potentially questionable ethical practices. Investors may view such

behavior as a red flag and choose to divest or avoid investing in the company, leading to a decline in firm value.

On the other hand, the positive relationship between tax planning and accounting measure of firm performance is further explained by (Mgammal & Ku Ismail, 2015). If tax planning is appropriately arranged and conducted within the tax law, it will benefit both shareholders and agents. They postulated that legally acceptable tax planning would enable the firm to maximize its returns by reducing tax burned and avoiding penalties. Therefore, this reveals that firms in EAC comply with regulations and exercise legal tax planning in the short term, but in the long run, they exercise harmful tax planning, which reduces firm values.

It's worth noting that not all tax planning strategies are inherently negative for firm value. Responsible tax planning that maximizes tax efficiency within legal boundaries while maintaining transparency and ethical behavior can contribute positively to a company's financial performance and, consequently, its value (Gribnau & Jallai, 2019). Tax planning strategies aim to minimize a company's tax liability by identifying legitimate deductions, credits, and incentives provided by tax laws. Companies can reduce their tax burden by effectively managing tax obligations, resulting in increased cash flow and profitability. This increased financial performance can enhance the firm's value as it demonstrates higher earnings potential.

Furthermore, tax planning can help companies mitigate tax-related risks and uncertainties. By staying compliant with tax laws and regulations, companies can avoid penalties, fines, and legal

battles associated with non-compliance. This reduces the likelihood of negative financial impacts and reputational damage, safeguarding the firm's value. Moreover, effective tax planning allows companies to optimize their resource allocation. By strategically managing tax implications, companies can allocate funds that would have otherwise been paid in taxes toward productive investments, such as research and development, capital expenditures, or expansion plans. This efficient use of resources can lead to improved operational performance and increased firm value.

In line with the views above, the results support agency theory by postulating that managers are more likely to exploit tax planning in favor of their benefits from the agency problem. At the same time, seek to maximize shareholder wealth (Feng et al., 2020). As one of the main goals of the firms is to report a high after-tax income so as to align with owners' expectation of shareholder wealth maximization, managers of EAC firms manage to cut off tax liability in the short run, but in the long run, the high cost associated with aggressive tax planning minimize the value of the firm.

The results also support the Signalling Theory in the sense that managers like to hide some information and decide to display favorable or unfavorable information about the future performance of firms so as to attract the concentration of the investors who always pay attention to the trend of the reported earnings (Lisboa & Kacharava, 2018). Therefore, to reduce information asymmetry, managers of the EAC listed firms use tax planning to signal to shareholders about an increase in firm value and manage to attract their attention. However, this

technique can bring an impact in the short run, but in the long run, everything will restore to its normal position.

5.2.3 Relationship between Firm Performance and Joint Effect

The results from Table 4.10 show that the combined effect of real earnings management (REM) and tax planning (TP) significantly negatively impact the market measure of firm performance. This means interaction between real earnings management is weakening the firm's value. Thus, the result supports hypothesis 3 (H3), which indicates a relationship between the joint effect of tax planning, earning management and firm performance. However, the association is limited to only one type of earnings management. The result indicates no significant relationship between the joint effect of tax planning and accrued earnings management (AEM) with firm performance. The results confirm the finding of Yorke et al., (2016), who found no significant relationship between the interaction of accrued earnings management and tax planning and firm performance on Ghana listed firms. The result is also supporting the link between earnings management and tax planning, as confirmed by research (Sundvik, 2016; Yorke et al., 2016; Amidu et al., 2019).

The plausible explanation for this finding is as follows; In a real sense, auditors, regulators, and other stakeholders can easily detect AEM rather than REM (Sundvic, 2016), So firms avoid manipulating AEM in conjunction with tax planning. Meanwhile, REM is reported to attract less attention from auditors and the government because it is not easier for unrelated parties to spot earnings manipulation conducted through real operations such as overproduction and sales

discounts (Li, 2019; Dakhlallah et al., 2020). Also, since real earnings are conducted through the firms' real operations, it is very easy for managers to shift or postpone the recording of income from the period with a high tax rate to the one with a low tax rate.

Furthermore, firms focusing on real earnings management and aggressive tax planning may prioritize short-term financial goals over operational efficiency and effectiveness (Machdar, 2022). Managers may make decisions that artificially boost earnings or reduce tax liabilities without considering the long-term consequences on the firm's operations. This neglect can lead to inefficiencies, suboptimal resource allocation, and an erosion of the firm's competitive advantage, which negatively impacts its performance. On the contrary, the joint effect of accrued earnings management and tax planning may not significantly impact firm performance because strong corporate governance mechanisms mitigate any potential gains from these activities. This allows the firm to maintain credibility and develop trust among its stakeholders, including investors, lenders, and regulatory authorities. Therefore, firms in EAC simultaneously manipulate real earnings management and tax planning to decrease the value of the firms.

The significant negative relationship in the interaction between real earnings management, tax planning, and firm performance documented in EAC firms are in line with Agency Theory. The finding revealed that managers from EAC listed firms are simultaneously using tax planning and real earnings management to maximize their personal interests and harm the interest of their shareholders. This finding supports the Agency Theory assumption whereby individuals are

deemed to be self-interested personnel who like to optimize the opportunities in their own interests (Yorke et al., 2016).

5.2.4 Moderated Role of Dividends Policy

As shown in chapter 2, the moderated effect of dividend policy is tested by the following hypotheses. Hypothesis 4a (H4a) examines the moderated effect of the dividend policy on the relationship between tax planning and firm performance, and hypothesis 5b (H5b) tests the moderated effect of the dividend policy on the relationship between earnings management and firm performance. Both hypotheses 4a (H4a) and 5b (H5b) are supported by the results as reported in Table 4.11.

Dividend policy is a crucial aspect of corporate finance that can be strategically used as the moderated mechanism for the effects of earnings management and tax planning on firm value. The results confirm this presumption by indicating that the interaction between dividend policy, tax planning, and earnings management negatively affects the firm's performance. It implies that with the presence of a dividend policy, the manager's practices on tax planning and earnings management will reduce the firm's value. This result may be highly attributed to a consistent and transparent dividend policy that can help reduce the temptation for earnings management. By distributing a portion of profits as dividends, companies signal to investors that the reported earnings are real and reliable. This can help build investor trust and credibility, ultimately enhancing firm value.

Another factor that attributes to this result is the long-term share value creation. Dividends are often regarded as a signal of a company's financial strength and stability. By maintaining a steady dividend policy, businesses can attract long-term investors who prioritize consistent income streams. These investors tend to be more interested in the company's fundamental performance and long-term value creation rather than short-term earnings manipulations. Consequently, a stable dividend policy can attract patient capital, which is less sensitive to earnings management and tax planning activities. Dividends are also an important mechanism for sharing profits with shareholders. By paying out dividends, companies align the interests of shareholders with those of management. This alignment can reduce the incentives for earnings manipulation, as shareholders would benefit more from sustainable and genuine earnings growth rather than short-term manipulations.

In addition, dividends are aligning with tax efficiency (Murphy, 2018). While dividends are generally subject to taxation, they can be more tax-efficient than alternative methods of distributing profits, such as capital gains. By adopting a dividend policy that aligns with tax regulations and optimizes the tax burden for both the company and its shareholders, firms can reduce the incentives for aggressive tax planning while maintaining firm value. However, it is important to note that the effectiveness of dividend policy in managing the effects of earnings management and tax planning may vary across different contexts and industries. Each company should carefully consider its specific circumstances and consult with financial professionals to develop an appropriate dividend policy that aligns with its objectives and creates sustainable long-term value.

The result supports the argument that managers are usually afraid to engage in manipulation practices when they are obligated to pay dividends. This is because dividend payment typically requires firms to have high-quality earnings and generate adequate actual cash flows, which also reflects the true economic outlook of the firms (Idris et al., 2015). Thus, in line with Agency Theory and Signalling Theory, the shareholders of EAC listed firms should demand high dividend payment to restrain managers' individualistic behaviors from diverting resources away from them to their personal interests (Khanna & Khanna, 2015).

5.2.5 Moderated Role of Audit Quality

Two hypotheses test the moderated role of audit quality: hypothesis 4b (H4b) tests the moderated effect of audit quality on the relationship between tax planning and firm performance, and Hypothesis 5a (H5a) examines the moderated effect of audit quality on the relationship between earnings management and firm performance. The result does not support both hypotheses 4b (H4b) and 5a (H5a). That means audit quality does not moderate the impact of tax planning and earnings management on firm performance. This finding is identical to Lin et al. (2012), Mulyadi and Anwar (2015), and Tarmidi and Murwaningsari (2019).

The plausible explanation for the results is that the relationship between audit quality, earnings management, tax planning, and firm value is complex and can be influenced by various factors. While audit quality is generally expected to moderate the relationship between earnings management, tax planning, and firm value, there can be instances where it may not effectively do so. These results might be occurred due to inherent limitations of audits (Montenegro & Bras,

2018), resources constraints (Czerney, et al., 2019), regulatory and legal environment (El-Dyasty & Elamer, 2020) and complexity of transactions (Xiao et al., 2020).

If audits have inherent limitations, auditors will not always detect all forms of earnings management or tax planning. Despite their best efforts and professional skepticism, auditors may not have access to all relevant information or may face challenges in assessing the management's intent behind complex transactions. Audit quality can also be compromised due to resource constraints. Auditors may face time constraints or limited access to relevant expertise or resources. In such situations, auditors might not be able to thoroughly investigate complex transactions or perform detailed procedures, which can impact their ability to effectively moderate the relationship between earnings management, tax planning, and firm value.

The regulatory and legal environment can influence the effectiveness of audits. If regulations are weak, enforcement is limited, or penalties for non-compliance are inadequate, it can create an environment where firms are more likely to engage in earnings management or aggressive tax planning. In such cases, even high-quality audits may struggle to moderate the relationship effectively. Furthermore, as business transactions become more complex, it can be challenging for auditors to fully understand the economic substance of those transactions. Earnings management and tax planning techniques can exploit this complexity, making it difficult for auditors to identify and appropriately address them. Consequently, audit quality may not effectively moderate the relationship between these activities and firm value.

The implication of this finding is on failure to meet the purpose of Agency Theory, which demands a high level of monitoring to reduce the agency problem (Abdelwahed, 2018; Ghaleb & Karmadin, 2018). The imposition of the effective audit does not restrain managers' practices and opportunities behaviours in the EAC listed firms. It is important to note that while audit quality plays a crucial role, it cannot entirely eradicate earnings management or tax planning. Auditors act as independent third parties, and their role is to provide reasonable assurance, not absolute assurance. Therefore, regulators, standard-setting bodies, and audit firms continuously work to enhance audit quality through improved standards, training, and regulatory oversight to mitigate these challenges. Also, instead of relying only on audit quality, the shareholders of the EAC firms are advised to impose other measures to control managers' opportunistic behaviours (Bhagiawan & Mukhlisin, 2020).

5.2.6 Impact of the Control Variables

The results reveal a significant relationship between control variables and firm performance. Financial leverage is found to have a positive impact on firm performance. Given this relationship, the finding then confirms the argument that firms prefer to use leverage to manipulate earnings upward to monitor the terms and conditions of the debts (Abdelwahed, 2018). However, this finding opposes the argument that leverage can act as a regulatory and monitoring mechanism to reduce manipulative practices because firms that rely on debt financing have a more outstanding financial obligation to settle (Amidu et al., 2019).

The results also suggest that firm growth opportunities relate to firm performance. Empirical evidence indicates a positive relationship between firm growth opportunity and performance. Specifically, the finding implies that firms with high growth engage more in manipulation practices than firms with a low growth rate. The plausible reason for that is, firms with high growth rates seem reluctant to accrue losses; as a result, they suffer from the high levels of accruals, which eventually drive them to manage earnings (Alzoubi, 2016). However, this finding is contracting the discovery of An et al. (2016), and Anagnostopoulou and Tsekrekos (2017) who revealed a negative relationship between firm growth and firm performance. They posited an explanation for this as low growth firms face higher financial distress than high growth firms; as a result, low growth firms are inevitably involved in manipulating earnings and tax liability which leads to low firm value.

Furthermore, the finding reveals no evidence that the firm size has a statistically significant relationship with firm performance. This was observed in all four incidents investigating the relationship between dependent variables and independent variables. Therefore, the finding highlighted that firm size in the EAC does not influence the reported manipulative activities. That means firms manipulate earnings management and tax planning regardless of their size.

5.3 Contributions and Implications

The finding reported in this study have implications for and make several contributions to the tax planning, earnings management, and firm performance literature, the EAC partner states' tax

authorities, EAC stock exchange markets, and investors. The next subsection reports the contributions and implications of the study to each of the targeted groups.

5.3.1 Methodological and Theoretical contributions

This study provides a theoretical contribution to the existing body of literature. Considering the existing controversial finding on the relationship between tax planning, earnings management and firm performance in the literature, conducting this study on EAC listed firms help to provide additional evidence for the ongoing debate. This study is undertaken in a setting that has not been conducted by prior literature. The focus was on the manipulation of earnings management and tax planning on the firm performance with the moderation impact of audit quality and dividend policy. Furthermore, unlike other previous studies which have focused their study on highly regulated markets such as China, the United Kingdom, Canada and the United States, this study has been conducted in an emerging market which is characterized by having a less transparent system, inefficient accounting regulations and few institutional investors (Algharaballi, 2013).

In addition, this study contributes to the Agency and Signalling theories by adding a further understanding of the implication of earnings management and tax planning in the existing agency and information asymmetry problems. The finding indicates that tax planning and earnings management adversely impact firm performance, which increases agency related to cost and, consequently, the shareholders' benefits are reduced. The evidence of adverse manipulative activities reveals the existence of information asymmetry between managers and shareholders.

Ftouhi et al. (2015) demonstrate that firms that exercise aggressive tax planning display financial complexities and decrease information transparency. The finding also indicates that both agency and information asymmetry problems can be monitored by dividend policy.

The finding also has implications for other theories, such as regulations theory. The basis of the regulation theory is to establish whether the regulations on accounting policy and tax management influence the firms' future performance (Siladjaja et al., 2018). The evidence of the existence of negative manipulative practices indicates that the tax regulations of the East African countries do not completely comply with the requirement of IFRS. Thus the finding implicates that EAC listed firms use loopholes in tax regulations and financial reporting standards to avoid tax and manage earnings. Furthermore, the finding contributes to the literature on the positive accounting theory by exploring the incentives that motivate managers of EAC listed firms to manipulate accounting figures. Accordingly, managers may have incentives to use tax planning and earnings management to increase or decrease financial income without affecting taxable income (Salah, 2019). Most likely, managers may have the same incentives for minimizing the tax burden (Salah, 2019). So the finding comprehends this argument by revealing that EAC-listed firms' managers have chosen tax planning and earnings management to decrease firm performance in the long run.

5.3.2 Contribution to Tax Administration and Authorities

The evidence revealed by this study has a contribution to tax administration and authorities in EAC partner states. By analyzing the impact of tax planning manipulation, this study will

explore the effectiveness of anti-avoidance measures imposed by EAC partner states on taxpayers. Over recently, EAC partner states have been witnessed to undertake several tax reforms, including an agreement on a uniform statutory tax rate of 30% for all members to minimize the opportunities for taxpayers to take advantage of aggressive tax planning. However, the finding of this study, which shows the existence of tax planning practices by the EAC listed firm, provides a wake-up call to improve their tax administration and develop strong anti-avoidance measures that can minimize aggressive planning.

5.3.3 Contributions to Shareholders

The study finding provides an analysis framework for investors, which will help them improve their investment decisions. The evidence obtained from this study which reveals the existence of aggressive tax planning and earnings manipulation, provides valuable information to investors in analyzing the reported performance of their firms. Furthermore, the evidence that dividend policy manages to moderate manipulation activities will be helpful to shareholders in evaluating the quality of financial reports in a period of dividend announcement. This will help them make economic decisions on either buying shares or allocating their fund to other investments. Also, the documented evidence of negative manipulation of tax planning and earnings management helps shareholders to predict the accuracy of the reported earnings and assess their persistence.

In addition, the finding has practical implications for the investors' protection. The documented adverse result reveals the importance of having strong protection for investors as the main regulatory mechanism for managers to reduce harmful manipulative practices. Also, the

imposition of strong investor protection will increase the quality of financial information and hence help to reduce agency and signalling problems (Persakis & Iatridis, 2016). On the contrary, poor investor protection and weak governance will continue to make reported earnings of the EAC-listed firms susceptible to inferior quality (Chauhan et al., 2018).

5.3.4 Practical and Policy Implications

The finding of this study will raise concern over the effectiveness of the audit quality in EAC listed firms to minimize the fraudulent behaviours of the managers involved in earnings manipulations. High-quality auditors are expected to provide a high level of auditing assurance and are more likely to identify inappropriate accounting practices such as earnings manipulations (Alzoubi, 2016). However, the finding of this study indicates the quality of auditing firms, either expressed by the total amount of audit fees paid or the class of firms among big 4s and non-big 4s, does not reflect moderating the impact of manipulation activities of the EAC listed firms. So, whether high or low, auditors' reputation is indifferent to monitoring aggressive tax planning and earnings management. Hence, the study will be helpful to shareholders in evaluating the cost and benefit of putting measures to minimize the managers' self-interest behaviours.

This study's findings will also provide international policymakers and regulators with valuable information to design and set regulations regulating tax planning and earnings management practices in developing countries. Specifically, the finding on tax planning will help the Organization for Economic Co-operation and Development (OECD) create action plans that address harmful tax practices in developing countries. Also, help other policymakers to plan for

further improvement to ensure the quality of the tax information reported by firms is enhanced. Furthermore, the evidence of the negative earnings management calls for the accounting standards and regulations setters to close the loopholes in financial standards.

Furthermore, the finding of this study provides further understanding of the factors influencing the failure and collapse of some firms in EAC. This is because negative manipulation of earnings management and tax planning turns out to harm firms due to high costs and heavy penalties linked with those activities. Therefore, EAC firms are required to improve their performance and avoid harmful manipulative practices.

5.4 Limitations

The major limitation of this study is the utilization of financial reporting data to estimate taxable income instead of actual taxable amounts from tax authorities. Due to confidentiality imposed by the tax authorities of the EAC partner states concerning the real taxable income of the companies, this study has been enforced to estimate taxable income for the determination of book-tax difference by using financial statements data in line with Addeh (2016).

The other limitation of this study is the utilization of only non-financial institution data from listed firms. The financial institutions' data were excluded due to the complexities in determining earnings management proxies. In contrast, non-listed firms were excluded due to their different manipulative incentives.

Finally, the study has been affected by the imposition of a uniform statutory tax rate in the EAC partner states, limiting the study to using tax savings as an alternative measure of tax planning. Utilization of tax savings as a proxy will cause identical results with effective tax rate because tax savings is the difference between statutory tax rate and effective tax rate.

5.5 Further research

Future studies are suggested to explore further the limitations and other issues highlighted by this study. Specifically, further studies should examine the manipulative effect of the EAC financial institutions using the earnings management proxy suggested by Amidu et al. (2019). Amidu et al. (2019) have measured earnings management for the financial institutions by using the discretionary loan loss provision, whereby the discretionary loan loss provision is obtained by deducting the non-discretionary loan loss provision from the total loan loss provision. In addition, this study has examined only one tax planning component, namely tax avoidance. Therefore, further study could extend their research by exploring other tax planning components, such as transfer pricing.

5.6 Summary and Conclusion

This thesis enriches the existing literature by providing evidence on the relationship between tax planning, earnings management, and firm performance in the EAC partner states. It also examines the moderated effect of dividend policy and audit quality. Its methodological approaches also contribute to the literature by refining tax planning proxy in book-tax difference.

The study has also applied the data winsorization method to ensure more representative data and provide valid estimations. Theoretically, this study contributes to Agency Theory and Signaling Theory by confirming the presence of agency problems and information asymmetry, which has led managers to increase manipulation practices of tax planning and earnings management. Furthermore, the study documents the significant implication of dividend policy to moderate the manipulation of tax planning and earnings management. The study's findings have also highlighted practical and policy implications regarding anti-tax avoidance measures and effective utilization of tax and financial regulations to both authorities and scholars in all EAC partner states.

The study has encountered significant limitations on the availability of actual taxable income from the tax authorities of the partner states. The study has also been limited on data choice, where only data from listed non-financial firms have been used. Furthermore, the imposition of a uniform statutory tax rate in EAC firms has hindered the study from using both effective tax rates and tax savings as alternative measures of tax planning.

In summary, this research aimed to examine the relationship between manipulative of tax planning, earnings management and firm performance while simultaneously considering the audit quality and dividend policy as a moderated variable, have documented the significant relationship between tax planning and earnings management firm performance. Also, the finding of moderated variables reveals that only dividend policy has a significant negative influence on the relationship between tax planning, earnings management, and firm performance. Although the audit quality is expected to oversee the manipulative management practice, the results reveal

no evidence that auditing quality has a significant moderating effect on tax planning, earnings management, and firm value relationship.

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