INFLUENCE OF BOARD CHARACTERISTICS ON EARNINGS MANAGEMENT IN MANUFACTURING FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

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DECLARATION AND APPROVAL

Declaration

This project is my original work and has never been presented for any academic award in any institution.

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Approval

This project is being submitted for examination with my approval as University supervisor.

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DEDICATION

My wife Susan has been an incredible source of encouragement and emotional support throughout this whole study process.

May many blessings be upon you.

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I would like to extend my heartfelt gratitude to all those who have provided me with assistance, encouragement, and valuable insights throughout the course of this research. Above all, I am deeply grateful to the Almighty God for granting me good health, life, and the strength to undertake this study. I would like to express my sincere appreciation to my supervisor, Dr. Sangoro, for their unwavering support, guidance, and mentorship during this research endeavor. Furthermore, I would like to acknowledge the support extended by the staff of Mount Kenya University, particularly the librarians who proved to be instrumental during the literature review phase of this work. Their assistance was invaluable and greatly contributed to the completion of this study. Once again, I would like to express my heartfelt thanks to all those who have played a role in this research journey.

ABSTRACT

It is widely recognized that earnings, as a crucial accounting information item on the income statement, hold significant importance for both current and potential investors. They rely on earnings to assess the financial strength of a firm and make informed evaluations regarding its future prospects. However, contemporary directors sometimes engage in earnings management practices, using them to deceive investors despite the existence of clear financial reporting frameworks. The aim of this study was to examine the effect of board characteristics on earnings management within manufacturing firms listed on the Nairobi Securities Exchange. Specifically, the study examined the influence of board independence on earnings management, influence of CEO duality on earnings management, effect of board size on earnings management in firms listed on the Nairobi Stock Exchange and the effect of board diversity on earnings management in firms listed on the Nairobi Stock Exchange. To achieve this, a descriptive research design was employed, targeting all eight manufacturing and allied firms listed on the Nairobi Securities Exchange. Secondary data was utilized for this study, collected from published financial statements spanning from 2019 to 2023. A data collection sheet was employed to gather the necessary information. Descriptive statistics, including measures such as mean, standard deviation, minimum, and maximum values, were used to analyze the data. Furthermore, the researcher employed panel regression models and assess the model fitness using F-statistics since the data was collected for 5 years among 8 listed manufacturing firms at NSE. The analyzed data was presented using frequency tables, facilitating the researcher's interpretation of the research findings. Descriptive statistics revealed board independence was found to be 0.65 with a standard deviation of 0.114. The mean ratio of CEO duality was reported as 0.172 with a standard deviation 0.0813. The mean ratio of board diversity was determined to be 0.333 with a standard deviation of 0.101. The mean ratio of board size to firm size was reported as 0.131, with a standard deviation of 0.205. Panel correlation analysis shows positive relationships between board characteristics ($r=0.3616$, $P=0.000$), board diversity ($r=0.5658$, $P=0.0001$), board size ($r=0.1107$, $P=0.4965$) and earnings management while negative relation between CEO duality ($r=-0.4826$, $P=0.0016$) and earnings management. Panel regression analysis revealed significant coefficients for board independence ($\beta = 0.4053$, $p < 0.05$), CEO duality ($\beta = -0.3345$, $p < 0.05$), board diversity ($\beta = 0.1139$, $p < 0.05$) while board size had insignificant coefficient ($\beta = 0.163917$, $p=0.073$). The study concluded that board characteristics had mixed effect on earnings management of listed manufacturing firms. Board characteristics and board diversity was found to have positive significant effect while CEO duality was found to have negative significant effect. On the other hand, board size was found to have positive insignificant effect on earning management. These findings suggest the importance of governance mechanisms in influencing earnings management practices. Recommendations include prioritizing independent directors, separating CEO and board chair roles, optimizing board size, and enhancing board diversity. Further research could explore the dynamics of board independence, CEO duality, optimal board size, and the evolving landscape of earning management standards in emerging markets like Kenya. Finally, the study has pinpointed further research gaps that can be filled by subsequent academic work.

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LIST OF ABBREVIATIONS AND ACRONYMS

CEO: Chief Executive Officer

CMA: Capital Markets Authority

CSE: Colombo Stock Exchange

DEP: Depreciation and Amortization Expense

ESG: Environment Social and Governance

MASB Malaysian Accounting Standards Board

NSE: Nairobi Securities Exchange

OLS: Ordinary Least Squares

PAT: Positive Accounting Theory

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Debnath (2019) says that the firm directors have the mandate to ensure accounting standards are complied. Section 166A (3) of Companies Act 1965 says that in case of holding company where it requires the consolidated account that is affirmed during the annual general meeting, the director of the company shall ensure the company account are prepared according to the accounting standards applicable. The Malaysian Accounting Standards Board (MASB) (S. 165 (15c) also agree that it is mandatory to the directors, to ensure they prepare accounts following the accounting standards approved.

According to Riyadh (2019), Malaysian government pioneered corporate governance system with the aim of ensuring the company's management is transparent and accountable. On 25th day of the month of March the year 1999, the Malaysian government through a committee prepared a report laying out the Malaysian Code on corporate Governance. Firms listed by Bursa Malaysia, initially known as Kuala Lumpur Stock Exchange before it was changed in the year 2004, started to enforce the Code of Corporate Governance in 2001.

In the United States of America, Amelia and Veena (2021) conducted a study on leadership aimed at inspiring board members to actively consider the risks and opportunities associated with broad environmental, social, and governance (ESG) considerations. The group discussions held during the study were dynamic and resulted in the generation of valuable ideas for further exploration in future programs pertaining to board characteristics.

According to Aljadba and Laili (2021) scholar from Havard University defines earning management as situation whereby people who are given authority to manage a firm, use verdict in financial reporting and structuring transactions to manipulate financial report with intention to give stakeholders wrong information on how the company is performing economically or influence other companies, in contractual agreement, that rely on the numbers in the reported

accounts. Judgment and discretion in Financial reporting (accounting methods and treatments) gives managers a chance whereby they can manage earnings which as a result can be of advantage or disadvantage on the quality of reported earning and the process of making decision (Debnath, 2019).

Healy, et al. 1992 affirms that earning management can be viewed as behavior to maximize personal utilities in debt covenant and compensation. Assenga and Ofoegbuet al. (2018) argues under stock price motivation that, in order for managers to mislead the market, earning management is key. According to Ngatno et al. (2021) says that earning can be managed using transactions and using accounting methods and estimates. These transactions include asset sales or accelerating or deferral of revenue.

Bhaskar et al. (2019) tried to investigate the opportunistic behavior of managers of businessunit. This empirical result is in agreement with Healy (1985). Harres et al. (2018) in Taiwan found that when there is a variation to a larger extend between control right and the cash flow right, there is higher motivation to the controlling shareholders and the frequencies of transaction of stock, non operation income and sales that are non operational.

In Jordan, Al Omush et al. (2019) conducted a study examining the influence of earnings management on the stock returns of industrial firms listed on the Amman Stock Exchange. Their research highlighted the significance of the financial information disclosed in the company's financial statements within the context of the stock exchange. This significance arises from the fact that shareholders heavily rely on these financial statements to evaluate the company's performance. Consequently, these assessments enable shareholders to make wellinformed decisions regarding their investments and anticipated stock returns. Moreover, these financial statements also play a pivotal role in determining the company's cash flow, as shareholder investment decisions are closely linked to the company's performance

Earning Management practices within Chinese publicly traded companies have been employed as a means to reduce agency costs, particularly in addressing issues of 'tunneling' between large and small shareholders. This research highlights a connection between the extent of private control benefits that controlling shareholders can extract and the practice of earnings management within listed firms. These findings shed light on the strong motivation for Chinese listed companies to engage in earnings management when they face the risk of being delisted, as demonstrated by Feng et al. (2020). Furthermore, the examination of instances where

controlling shareholders inappropriately allocate raised capital in rights issues indicates that earnings management in Chinese listed companies is predominantly driven by the phenomenon of tunneling, as suggested by Liu and Lu (2017).

Aljadbba et al. (2021) in his study concluded that the size of the firm is positively related with the performance of the firm. They found that when there is larger board, there is more external linkage, hence has ability to get critical resources like funds and expertise that helps in running a firm which increases the performance. Alhadab et al. (2018) study laid an important determination on the board size- performance relationship.

Fama and Jensen (1983), a South African scholar, in his argument says that the important element in corporate governance and the effectiveness of the directors to supervise managers depends on the board structure. Hence the important attributes that improves the ability to mitigate earning manipulation are the board characteristics that include board independence, board size, gender diversity and financial expertise. In their examination of earnings management practices concerning the avoidance of losses among all companies listed on the Johannesburg Stock Exchange in South Africa, Pududu and De Villiers (2016) contended that there was no discernible proof of earnings manipulation aimed at circumventing the reporting of minor losses or slight decreases in earnings in the South African context. This conclusion was ascribed to the relatively smaller scale of the Johannesburg Stock Exchange when compared to stock exchanges in the United States. Additionally, it was suggested that investors and analysts in South Africa might place more emphasis on alternative performance indicators such as revenue and headline earnings per share, rather than solely focusing on earnings

Asogwa et al (2019) from Nigeria say that stronger boards are in larger firms because they have of the presence of more women in boards and presence of larger proportion of independent directors. DeAngelo (1981) also view those large firms contacts larger audit firms which is associated with higher and quality earnings. In view of Political cost theory, small firms are less exposed to political cost compared to the larger firms and the larger firms are exposed to stronger scrutiny and monitoring by the government and financial analyst's as a result small firms report less earning than larger firms.

Ngatno (2021) did a study in Ghana on the role of directors in earnings management; he notes that they play an important role in functioning of a firm. For the best interest of the firm, emphasis must be put on director's duty which must be done independently. For the firm's

business not to be compromised, directors must carry out their work with care skills and diligence. The company requires that the board of directors be its ears and eyes since it cannot work on its own. He suggests that the board of director is the core of corporate governance and that the structure of board of directors is determines the functions of the board. According to their argument, there is no possibility of directors engaging in collusion with external directors, thereby enhancing the effectiveness of management oversight.

In Kenya, a research investigation was carried out to assess the impact of corporate governance on the manipulation of earnings by firms listed on the Nairobi Securities Exchange. The research highlighted that inadequate governance structures create opportunities for managers to engage in activities that could result in lower-quality reported earnings. The study's findings concluded that the size of the board had a statistically significant, adverse impact on earnings manipulation. Overall, the results demonstrated that corporate governance exerts a noteworthy influence on the practice of earnings management among companies listed on the Nairobi Securities Exchange (Nyatichi et al., 2020). Consequently, corporate governance emerges as a vital determinant of earnings management for companies listed on the NSE. There is no previous research has investigated the relationship between board characteristics and earnings management specifically among listed companies in various sectors. This study aims to address this gap by focusing on manufacturing firms listed on the Nairobi Securities Exchange. The objective is to provide additional evidence regarding the association between earnings management and board characteristics within the context of manufacturing companies listed on the Nairobi Securities Exchange.

1.1.1 Board Characteristics

Governing boards, comprising both executive and non-executive directors, are deeply involved in the administration of firms (Abubakar et al.., 2020). They are considered the cornerstone of firm administration, with effective boards being linked to improved firm management (Patel, 2022). Wijesinghe et al… (2019) asserts that the board of directors collectively holds the highest governing authority within the organization and bears responsibility for its long-term success. Boards of directors serve as a crucial governance mechanism aimed at safeguarding the interests of the firm's stockholders (Issa, 2019), playing a pivotal role in overseeing managers, endorsing decisions, and charting the organization's strategic direction (Ali et al..; 2021). Salem et al., (2019) emphasize that boards oversee management on behalf of shareholders and act as a conduit between management and shareholders. Therefore, leveraging governing boards effectively as an

internal governance mechanism is crucial for enhancing organizational performance and profitability.

The frequency of board meetings is a notable characteristic of boards of directors (Ntim et al.,2018), serving as a key indicator of managerial monitoring and discipline effectiveness. Regular board meetings are viewed as essential for improving corporate governance (Yameen, et al., 2019) and are considered one of the significant governance tools guiding management in serving shareholder interests. Yameen et al. (2019) notes that there is no explicit corporate governance law stipulating the minimum number of meetings a board member must attend. However, Malaysian corporate practice codes mandate governing boards to disclose meeting numbers and individual board member attendance details annually. The local CMA code of corporate practice prioritizes disclosure by listed firms to ensure transparency. Consequently, control over directors' diligence is subjective and rests internally with the meeting's chairman.

Yameen et al. (2019) argue that, generally, fewer board meetings correlate with better overall organizational performance. According to the agency theory perspective articulated by Ntim et al., (2018), directors are appointed by shareholders to instill discipline, establish timely and feasible strategic plans, and effectively manage management, thereby maximizing shareholder value. Achieving these objectives requires governing boards to convene frequently, enhancing their advisory capacity, control, and disciplinary measures, consequently boosting the corporation's performance. The authors emphasize that regular board meetings facilitate effective monitoring of board decisions. Similarly, from the agency theory viewpoint, Atty, Macheroochego et al., ((2020) align with Ntim et al (2018), asserting that conscientious discharge of board responsibilities enhances control and oversight. Regular board meetings provide directors with consistent opportunities to fulfill their duties while considering shareholder interests.

Sawalqa (2021) suggests that agency theory supports the notion that regular board meetings enhance firm value by keeping managerial activities under board control, compelling management to act in the shareholders' favor. Citing Jensen (1983), Sawalqa (2021) highlights the critical role of regular board meetings in coordinating plans and providing opportunities for different managerial levels to understand their roles and aspirations within the organization.

The second dimension of board characteristics is board size, which can significantly impact the monitoring function and decision-making process (Bhat, 2018). Adebayo, Ringim, and Shaibu (2022) argue that determining an appropriate board size for effective functioning remains a contentious issue. Some scholars advocate for smaller boards, citing reduced problems of freeriding and enhanced efficiency due to better communication and decision-making coordination. Bhat (2018) posit that smaller governing boards are generally more effective, leading to higher market valuation for organizations. They note evidence supporting the effectiveness of smaller boards in CEO monitoring due to reduced coordination challenges and free-rider issues. Conversely, Bhat (2018) acknowledge another perspective favoring larger boards, which suggests that they offer superior monitoring capabilities due to increased experience and time availability compared to smaller boards

Adebayo et al. (2022) argue that effective monitoring by governing boards is closely associated with larger board sizes, attributing this to the ability to distribute workload across a greater number of members. They note that research links large boards with varying levels of earnings management and firm performance. From an agency theory perspective, larger boards mitigate the risk of CEO dominance, safeguard stockholder interests, and enhance monitoring capabilities (Bhat, 2018). A larger board enhances its negotiating power with the CEO and facilitates the allocation of specialized responsibilities. According to resource dependency theory, firms opt for larger boards to access crucial resources and adapt to regulatory pressures by incorporating members with diverse backgrounds.

Bhat (2018) argues that while smaller boards may risk CEO dominance and higher agency costs, larger boards benefit firms by overseeing management, providing necessary resources, and incorporating diverse stakeholders. In contrast, Dabor, Isiavwe, Ajagbe and Oke, (2018) suggest that organizations with larger boards tend to have lower market valuations, attributing this to lower profitability, increased operating costs, and higher CEO remuneration unrelated to performance, which may encourage asset accumulation at the expense of shareholder value. Thus, evidence on the relationship between board size and organizational performance remains inconclusive.

The third dimension of board characteristics is gender diversity, which is considered crucial for overall board diversity (Hassan & Marimuthu, 2020). They argue that diversity, encompassing

gender, professional experience, ethnicity, age, and background, brings innovation, leadership, industry understanding, creativity, global relationships, and better decision-making. Despite its importance, female representation on governing boards remains low globally, with statistics from the Catalyst census indicating 12.4% representation in the US, 6.4% in the UK, and a mandatory minimum of 40% in Norway.

Freitas (2018) defines board diversity in terms of the representation of women and racial minorities, suggesting a positive and statistically significant relationship between the presence of women or minorities on boards and firm value measured by Tobin's Q. Additionally, increased female representation tends to stimulate the hiring of more minorities. Although Garg and Tanwer, (2020) found no significant relationship between board diversity and firm value, they argue that the absence of such a relationship shouldn't deter the promotion of diversity on governing boards. Female board members are deemed crucial for their market understanding, positive corporate image, and their impact on the career development of female staff members, thereby indirectly contributing to firm value.

1.2 Statement of the Problem

Previous studies mostly focus on the relationship between firm performance and the characteristics of the board. Harres et al. (2018) says that, when outside directors are in charge, the wealth of the stockholders increases. Chatterjee (2019) states that outside manager, are against attempt of takeover by greenmail. In Taiwan, poor corporate governance mechanism led to financial distress cases. The board of directors serves as the central component of the corporate governance system, and the composition and characteristics of the board have a significant impact on both the monitoring functions of the board and the wealth of shareholders.

Nyatichi, (2020) highlighted that, in spite of the impressive performance of the Nairobi Securities Exchange (NSE), companies listed on the NSE continue to grapple with challenges related to ownership structure. Some controlling shareholders have exploited their authority to pursue personal gain, often to the detriment of minority shareholders. This has led to financial scandals, as exemplified by the collapse of well-established firms like Daima Bank, Trust Bank, Euro Bank, Imperial Bank, Uchumi Supermarket, Nakumatt Supermarket, and Chase Bank, among others. Decisions related to the earnings management of these companies are greatly influenced by the choices made by the board, which can either enhance or harm the company's

performance Additionally, there is a recurring pattern of listed companies being temporarily suspended from trading on the NSE due to compromised financial results released by Kenyan firms.

According to Brickley and James (2017), there exists a negative relationship between CEO compensation and the presence of outside directors. Conversely, Weisbach (2018) suggests that CEOs who have outside directors and subsequently face poor performance are more likely to resign or leave their positions. Studies from previous researchers argue that agency cost can be reduced by an efficient board of directors. Beasley (2016) find that due to existence of audit committee and outside directors, the chances of financial statement fraud are minimal.

Friedman (2004) investigates if management can increase stock prices during initial public offerings by tempering with accounting earnings. Erickson and Wang (2019) tried to find out the behavior of earnings management of stock-for-stock mergers. Toeh et al. (2018) tried to find out impact of managing earning on seasoned equity offering. All the aforementioned studies indicate that investors face challenges in discerning the quality of earnings based on accounting standards. Were (2018) suggests that factors such as market-to-book value ratio, earnings management, and firm size positively impact stock returns. However, there is currently a lack of research conducted in Kenya specifically on earnings management within individual sectors of listed companies. This study aims to provide further insights into the relationship between board characteristics and earnings management in manufacturing firms listed on the Nairobi Securities Exchange, thereby contributing to a deeper understanding of the topic

1.3 Purpose of the Study

The primary aim of this study was to examine how board characteristics influence earnings management within manufacturing firms that are listed on the Nairobi Securities Exchange.

1.4 Objectives of the study:

i. To examine the influence of board independence on earnings management in firms listed on the Nairobi Stock Exchange.

ii. To assess the influence of CEO duality on earnings management in firms listed on the Nairobi Stock Exchange.

iii. To investigate the effect of board size on earnings management in firms listed on the Nairobi Stock Exchange.

iv. To determine the effect of board diversity on earnings management in firms listed on the Nairobi Stock Exchange.

1.5 Research Hypotheses:

Ho1: There is no statistical relationship between board independence and earnings management in firms listed on the Nairobi Stock Exchange.

Ho2: There is no statistical association between CEO duality and earnings management in firms listed on the Nairobi Stock Exchange.

Ho3: There is no statistical link between board size and earnings management in firms listed on the Nairobi Stock Exchange.

Ho4: There is no statistical relationship between board diversity and earnings management in firms listed on the Nairobi Stock Exchange.

1.6 Significance of the Study

The research findings may add more knowledge to the discussion of CEO compensation at the manufacturing companies traded on the Nairobi stock exchange. Financial theories, including the current portfolio theory and the prospective theory would confirmed by the study's findings as they apply to the manufacturing enterprises listed on the Nairobi securities exchange.

Potential investors may be helped by this information. This research would be available in public repositories, where it can be accessed by academics and scholars conducting research in the field of business management. The body of financial literature may grow as a result as well.

The study's value to the company as a whole lies in its recommendations for action. If the organization's board of directors did a better job of managing things, the company's employees would do a better job of serving the public, and the company's customers would get better service, all of which would lead to better profits management.

Finally, the study has pinpointed further research gaps that can be filled by subsequent academic work.

1.7 Scope of the Study

The purpose of the research was to examine how board composition affects earnings management for industrial companies trading on the Nairobi Stock Exchange. The research had a total of five variables: four independents, one intervening, and one dependent. The research focused on all manufacturing companies trading on the Nairobi stock exchange as of the end of 2023. Research was conducted from 2019 to 2023.

1.8 Limitations of the Study

The study faced the following limitations which hindered access to information sought by the study. The research was undertaken in a short period with limited time for doing wider research. The study projects also that most of the vital information was in a restricted portal. The researcher sought permission from the respective managers to be availed with, the necessary information

1.9 Delimitations of the Study

The study focusing on influence of board characteristics on earnings management were confined within manufacturing firms that are listed on the Nairobi Securities Exchange. The study settled on the listed manufacturing firms because the information on financial reports were readily available in each company's website which were cost effective for the study.

1.10 Assumptions of the Study

The study assumed that the information about the financial statement and balance sheet found in the public portal are accurate. The study also assumed that the establishment information at point in time reflects what it is at the ground.

1.11 Operational Definition of Key Terms

Board characteristics refer to the specific attributes and qualities of a company's board of directors that can influence corporate governance and decision-making processes. In this study, board characteristics include board size, gender diversity, and the presence of independent directors. These attributes are quantified and analyzed to determine their impact on earnings

management practices within manufacturing firms listed on the Nairobi Securities Exchange (NSE).

Board size refers to the total number of directors serving on a company's board. It is an important aspect of board characteristics that can affect the board's ability to govern effectively. In this study, board size is considered as a key variable that may influence the extent of earnings management practices within the firms.

Earnings management is the strategic manipulation of a company's financial statements to present a desired level of profitability or financial performance. This is often achieved through accounting techniques that adhere to legal standards but may obscure the true financial condition of the company. For this study, earnings management is operationalized using discretionary accruals as a proxy, which reflects the extent of managerial discretion in financial reporting.

Gender diversity refers to the representation of different genders on a company's board of directors. It is typically measured by the proportion of female directors in relation to the total number of board members. In this study, gender diversity is considered a factor that may influence board dynamics and decision-making, potentially affecting earnings management practices.

An independent director is a member of a company's board of directors who does not have a material or pecuniary relationship with the company or its related entities, aside from their directorship. Independent directors are expected to provide unbiased oversight and judgment, and in this study, their presence is evaluated as a board characteristic that could influence earnings management practices.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter encompasses a review of the literature, including both the theoretical and conceptual frameworks that will serve as a guide for the study. Additionally, it includes an empirical literature review for each variable, highlighting the existing gaps that this study aims to address.

2.1 Theoretical Review

The foundation of this study rests on four prominent theories: Agency theory, Stewardship theory, Stakeholder theory, and Positive accounting theory. These theories serve as the theoretical framework for comprehending the impact of board characteristics on earnings management in manufacturing firms listed in the Nairobi Securities Exchange. The following sections provide an elaborate discussion of each theory.

2.1.1 Agency Theory

The inception of Agency theory can be traced back to 1973 when Stephen Ross and Barry Mitnick formulated the concept (Mitnick, 1973). The theory emerged as a response to the agency problem that arises when company management prioritizes personal gains over the interests of shareholders (Jensen & Meckling, 1976). In modern corporations, the separation of ownership and control often leads to divergent objectives between the principal (shareholders) and the agent (management), as explained by the tenets of agency theory (Hoskisson et al., 1999).In addition, agency theorists have recognized the board as a tool of owners to rein in managers' opportunistic behavior and thus solve the agency theory (Stiles & Taylor, 2001). Therefore, supervisors must be monitored in order to correct their aberrant actions (Asogwa al. 2019).

Since agency theory is by far the most popular method for studying corporate governance, the make-up of the board is often seen as crucial to finding solutions to agency theory (Aguilera et al., 2018). While proponents of agency theory may see the principal as the root of the "principal and agent problem," critics like Perrow (1986) point out that the principal may also be to blame. A behavioral agency theory was created by agency theory's detractors to account for factors like agents' incentives and

proper remuneration. (Sanders & Carpenter, 2003; Pepper & Gore, 2012; Wiseman & Gomez-Mejia, 1998). According to the Agency Theory, the board should be made up of impartial members, and the CEO and Chairman should report to different people. Managers can distort the company's economic performance by manipulating earnings, as shown in a study of the connection between board independence and Earnings Management. This is made possible by the agency theory (Ngatno & Youlianto, 2021). This theory helps in understanding the role board independence plays in earnings management.

Researching the board composition and financial performance of non-financial companies traded on the Nairobi Securities Exchange (NSE) is a perfect opportunity to use agency theory, which states that disagreements emerge when principals and agents have different priorities. This theory sheds light on the ways in which size and independence of the board might affect the monitoring and control processes that affect the quality of financial reporting (Jensen & Meckling, 1976). Although agency theory has a solid grounding and enough of evidence to back it up, one of its limitations is how it treats self-interest and formal controls in isolation. Yet, improving corporate governance standards in Kenya may be achieved by gaining an awareness of their strengths and limitations.

Abu et al. (2016) states that boards use agency theory to oversee and control senior management on the owners' behalf. Research findings on board characteristics and earnings quality have expanded agency theory. For instance, Ahmed and Manab (2016) found that larger boards incur additional agency costs due to increased coordination and communication expenses. Conversely, Kalsie and Shrivastav (2016) demonstrated that larger boards, through enhanced monitoring and control, protect stakeholders' interests and improve firm performance. Thus, agency theory suggests that larger boards improve firm performance by increasing oversight.

Despite its strengths, agency theory has limitations, including narrow assumptions about human motivation and behavior, which may overlook other factors influencing firm performance (Eisenberg et al., 2018). A number of critics have pointed out that the theory overlooks important social and ethical factors in favor of its narrow emphasis on individual self-interest (Davis et al., 1997). Nevertheless, the researcher examined the

impact of board size on the profits quality of non-financial enterprises listed on the NSE, using agency theory as a foundation.

2.1.2 Stewardship Theory

According to Freeman (1984), a key proponent of stakeholder theory, stakeholders refer to any group or individual who can influence or be influenced by the organization's goals. There is ongoing debate among scholars regarding the extent to which all stakeholders of a company should be considered. Stakeholder theory posits that corporations have responsibilities beyond their obligations to shareholders, as they are intertwined with society and serve a broader societal purpose. (Kiel & Nicholson, 2003). The definition of stakeholders proposed by Freeman (1984) is very inclusive, covering a wide range of entities and nearly every possible category of stakeholder. On the other hand, Clarkson (1994) takes a more limited perspective, arguing that voluntary stakeholders are exposed to risk because they have invested time, money, or other resources in the company. Therefore, the involuntary partners bear some of the risk associated with the firm's operations. The agency theory explains why the social structure is more crucial than the owner-manager dynamic. Managers can rationalize their outof-the-ordinary compensation through the incentive system of stock options, according to research by Keasy et al. (2020). The abuse of executive authority is tied closely to the issue of executive overpay, as executive salaries have skyrocketed compared to average wages, and there is a weak correlation between managerial success and pay (Riyadh et al, 2019; Assenga et al, 2018).

Large corporations' attempts to rein in executive compensation by establishing independent remuneration panels have largely failed. (Khan and Subhan, 2019). Managers, from the perspective of stewardship theory, effectively serve as agents of the board in order to optimize shareholder value. Therefore, the theory recommends eliminating the position of chairman, which is assumed to increase agency expenses and impede CEO decision-making. (Rechner and Dalton, 2019). The so-called duality will also give CEOs more leeway in developing strategies and maximizing their efforts to increase the company's worth. As a result, they would be able to make more informed bookkeeping decisions that would boost the transparency and credibility of financial statements. This hypothesis clarifies how having a CEO duality affects the accuracy of financial reports.

2.1.3 Resource Dependency Theory

Human resource, capital supply, and information are just some examples of external environment factors that are held to have a close relationship to the company in this theory.(Boyd, 1990; Pfeiffer, 1973). Boards of directors play an important role in facilitating communication between the company and its stakeholders. acquire access to material, human, networking, and other resources. The idea centers on the management team's ability to allocate resources. Rather than focusing solely on keeping an eye on management, boards now need to forge external partnerships in order to weather competitive pressures and unpredictable markets (Riyadh, et al., 2018). Alhadab and Clacher (2018) argue, from a resource-dependence point of view, that the board human capital (know-how, a variety of experiences, etc.) and intangible capital (relational links with suppliers, government agencies, prospective customers, etc.) to the company.

The theory analyzes the effect of board members' financial contributions on the board's resource distribution and, in turn, the company's success. Two distinct points of view are implied by the reliance theory, as stated by (Boyd, 1990), In terms of how the board works. The first board area is likely to be evaluated critically, from the context of, and influences by, the world outside. Secondly, if the dimension of the board is altered, the performance of the business will change in accordance.

According to Chouaibi et al. (2018), who provide further explanation on how dependence theory influences the correlation between board size and earnings management, a larger number of independent directors with diverse experiences and expertise will improve the board's ability to oversee management, which in turn will increase shareholder value and decrease the likelihood that managers will behave in their personal interests. The reliance theory agrees with the non-dual CEO's point of view as well, given that an increased board membership will improve business connections and oversight.

Resource Dependence Theory (RDT) offers a robust perspective on organizations' external dependencies (Nienhüser, 2018). It recognizes that organizations rely on external resources for survival and growth and emphasizes the role of board characteristics in securing these resources (Hillman et al., 2010; Johnson et al., 2014). Hillman, Canella, & Paetzold (2010) cite Pfeffer and Salancik (1978) as saying that directors are paramount in facilitating interdependence by linking the firm's management to external sources of necessary resources. This view is in line

with the fact that different stakeholders, such as investors, regulators, and suppliers, are interdependent on the Nairobi Securities Exchange (NSE)-listed firms.

One of RDT's strengths lies in its recognition of the importance of board characteristics in facilitating resource acquisition for financial reporting (Ntim et al., 2018). However, the theory also acknowledges limitations. The expansion of the firm's infrastructure limits the directors' ability to oversee its day-to-day operations (Bw'auma, 2021). Regardless, RDT concludes that directors have the expertise to help with monitoring operations, such as reviewing financial reports to improve profits quality, which is a responsibility of senior management.

However, RDT's exclusive focus on external factors and the function of internal governance systems is one of its flaws (Bw'auma, 2021). The intricacy of internal procedures and interactions inside firms may go unnoticed, despite the fact that it acknowledges the importance of board features. Board features and earnings quality may be better understood by combining RDT with theories such as agency theory and stakeholder theory.

According to RDT, organizations' behavior is influenced by the resources on which they rely (Nienhüser, 2008). One way to increase the organization's access to specialized knowledge is to increase the number of board members (Jackling & Johl, 2009). Various viewpoints on the effect of board size on company success show that empirical results may differ (Bublykova, 2014). However, RDT is still essential for studying how non-financial companies listed on the NSE's earnings quality are impacted by board features.

Despite its flaws, RDT provides useful information on the role of board qualities in obtaining funding for financial reporting. The role of gender diversity and independent audit committees in ensuring high-quality financial reporting may be better understood by analyzing how firms arrange their governance processes in relation to resource availability. To help NSE-listed companies improve their financial reporting, this theory offers a framework for investigating the connection between board traits and resource acquisition (Pfeffer & Salancik, 1978).

2.1.4 Positive Accounting Theory

Watts and Zimmermann (1986), were the original proponents of this theory. This theory clarifies the rationale behind a widely-used accounting concept. Favoring one strategy over another is also emphasized in this theory (Debnath, 2019). The Positive Accounting Theory provides an explanation for the selection of particular managerial actions. Different relations

between groups of people are used in the theory's evaluation process, including those between managers and owners, managers and investors, and the company and society. Stakeholders as a whole exhibit a variety of actions that help them meet their objectives. Managers may employ a variety of bookkeeping techniques to maximize their own personal gains. (Watts and Zimmermann, 1986)'. The political cost hypothesis, the incentive plan hypothesis, and the debit covenant hypothesis. Several empirical tests have confirmed the theories' predictions. Managers may be able to cash in on potential future gains to boost their bottom lines today. The hypothesis predicts an increase in reported profits, particularly when bonuses are awarded to executives. According to PAT, an individual manager's actions are determined by their own self-interest. The managers' apparent prioritization of their own interests over those of the business is made clear by the self-interest they display. A debt covenant is a promise made by the creditor to the lender prior to the issuance of debt. A bank debt or credit that works in favor of the company is one such example. (Watts and Zimmermann, 1986).

The current study on the connection between board diversity and earnings management is grounded in the theory that directors who are responsible for running companies on a day-today basis may apply accounting policies and assumptions that allow them to maximize their benefits, ultimately resulting in the manipulation of books of accounts to reflect a given level of earnings. So, the board of directors may agree to an accounting technique that maximizes executive compensation at the expense of company stockholders.

2.2 Empirical Review

2.2.1 Board Independence and Earnings Management

Board independence in earnings management is described as the ability of non-executive (independent) directors to make right and untainted decisions. These choices are made on a case-by-case basis without interference from higher-ups, labor unions, or other interested parties within the company. According to Al-said (2021), the inability of the board's nonexecutive members to effectively carry out their responsibilities stems from the fact that they are not truly independent of management and do not offer truly objective business judgment. Shareholders can put their faith in independent directors to help mitigate agency issues. Using

US statistics, Khan (2019) discovered a negative correlation between the number of independent directors and the number of total board members. Brahim et al. (2018) examined

whether board composition impacted EM using a sample of 1178 firm-year observations for UK non-financial firms over 1993-1996UK. Hassy et al. (2018) analyze the relationship between board composition and EM at a sample of UK companies after the Cadbury Committee Report was released in 1992. While this study does not discover a correlation between board independence and EM prior to the Cadbury era, it does confirm a significant negative correlation between the size of abnormal accruals and the percentage of outside board members in the Cadbury era and beyond.

Alves (2017) investigated the impact of board composition on the extent of EM in Portuguese publicly traded companies. Thirty-four non-financial businesses were used in the research. This study's results suggest that boards with a higher percentage of non-executive directors restrict EM practices by reducing the size of discretionary accounting accruals. Recently, Rajeevan and Ajward (2020) looked at how EM among Sri Lanka's publicly traded businesses is related to corporate governance practices. Firms with a greater proportion of non-executive directors were found to be able to limit EM in the study, which used a sample of 70 companies listed on the Colombo Stock Exchange (CSE) between 2015 and 2017. In addition, Türegün (2018) found an inverse correlation between the number of non-executive members and EM for Borsa Istanbul companies. On the other hand, Alareeni (2018) found that independent directors had a positive impact on EM when they looked at listed companies from Bahrain.

Ianniello (2019) looked at a cross-section of Italian publicly traded companies from 2007 to 2010 and found that the independence ratio of the board had no effect on profits management. The same result is reached by Khalil et al. (2016), who use data from 1005 non-financial firm-year observations in Egypt between 2005 and 2012 to draw their conclusions. According to the Egyptian study, there is no correlation between the number of independent executives and a decrease in earnings management. Earnings adjustments tend to be large at businesses with boards that are internally dominated, as demonstrated by research by Suyono et al. (2018). Beasley (2016) contends that less profit management occurs when boards have more autonomy. The same conclusion is reached by Peasnell et al. (2014), who instead use a group of UK-based businesses. Similarly, Khan (2019) finds that an increase in the number of outside board members is inversely related to the number of unexpected gains. Khan (2019) found that firms with boards dominated by insiders had a greater capacity to generate discretionary accruals. Davidson et al. (2015) also note that the likelihood of earnings manipulation drops when there

are more independent directors on the board than senior directors. Independent board members play an important part in reducing earnings manipulation following the mandatory implementation of International Financial Reporting Standards, as found by Zalata et al. (2018).

The relationship between independent boards and Chinese companies' bottom lines was studied by Liu et al. (2015). They looked at how board independence relates to company performance and found that, on the whole, unbiased directors in China boost operational success. They checked for diversity using experimental variables, used the dynamic generalized method of moments estimator, and used the difference in differences technique; all of these tests confirmed their results. The correlation between autonomy of directors and company performance was larger in publicly traded companies and those with less information collection expenses. To top it all off, they proved that independent directors are crucial in reducing insider trading and making investments in Chinese companies more reliable. These findings highlight the vital role that independent directors play in China's business management system. In contrast to their study's emphasis on banks and asset quality as a performance metric, the present investigation fills a knowledge vacuum by investigating how board autonomy affects the profits quality of non-financial companies listed on the NSE.

Taking into account the role of the board of executives as a collective body serving the members' and stakeholders' best interests, Fuzi et al. (2016) examined the correlation between board impartiality and company success. In order to protect these interests, they stressed the need for a board with a mix of executive and non-executive directors. The independence of non-executive directors is crucial for their monitoring job to be performed properly. According to the Code of Corporate Governance, shareholders put their faith in independent boards that offer adequate oversight and to reduce agency concerns. Just following the suggestions won't cut it if the directors can't carry out their separate duties properly. Research on the correlation between the percentage of independent directors and company success is limited, and the few studies that have looked at the topic have produced contradictory results.

Increased autonomy among boards was associated with better profits quality, according to research by Otusanya and Liu (2019) that focused on businesses listed on Nigerian public exchanges. A similar positive association between independent boards and high-quality profits was found by Maseko and Soobaroyen (2020) in their study of South African enterprises. According to these results, non-financial African firms' financial reporting is much improved when boards are independent. It's important to keep in mind that corporate governance

methods, organizational makeup, and other features may vary from one African stock market to another. The effect of board impartiality on earnings quality may vary across markets due to differences in legislation governing board autonomy, guidelines for financial reporting, and expectations for corporate responsibility. These differences are most noticeable in the NSE, but they are also present in the Nigerian and South African stock exchanges.

According to Adegbite, Amaeshi, and Amao (2018), a larger proportion of unbiased directors on the board is linked to higher-quality profits. By bringing fresh perspectives, expertise, and objectivity to the table, unbiased directors help mitigate agency problems and possible conflicts of interest that arise when chief executive officers (CEOs) have undue influence over financial reporting decisions. Generally speaking, non-financial African enterprises see an improvement in profits quality when their boards are more independent, with a greater share of unbiased directors and distinct responsibilities for the CEO and board chair.

According to research by Kosgei et al. (2018) and Kiprotich et al. (2020), enhancing corporate governance and decreasing conflicts of interest can improve earnings quality. This is achieved by reducing the influence of executive directors, enhancing the proportion of unbiased directors, and distinguishing board positions from leadership. Unfortunately, these results are only applicable to the non-financial companies listed on the Nairobi Securities Exchange and their particular contexts and samples; they do not provide any generalizable information about the connection between corporate governance practices and earnings quality. The impact of board independence on non-financial enterprises' profits quality has to be further studied in many contexts in order to draw strong and generally applicable findings.

2.2.2 CEO Duality on Earnings Management

CEO duality in relationship to earnings management is defined as one person acting as a CEO and also as the chairman of board. The presence of a CEO duo will create opportunities for power concentration, which may enhance managerial discretion. There will be better oversight if the positions of chief executive officer and chairman of the board are held by separate people. (Cornett et al., 2018). However, if CEO Duality exists, it may reduce the efficacy of monitoring action and increase the likelihood of a high degree of discretionary accrual.

According to Klein (2002), the CEO's dual role is favorably correlated with discretionary accrual. On the other hand, Beasley (1996) found no statistically significant correlation

between dual CEOs and financial statement deception. Equally convincing was the conclusion reached by Abdul Rahman and Ali (2006) that splitting the CEO and chairman roles has no impact on profits management. CEO duality is a hotly debated topic in discussions of corporate governance, as observed by Riyadh, Sokoharson, and Alfaiza (2019). But the central issue at the heart of the debate over whether to keep the CEO together or not. The argument over this prominent topic continues, despite a meta-analysis by Bhasker et al. (2019) finding no empirical link between CEO duality and earnings management. The debate about dualism in academic literature is just as open. The theoretical basis for a relationship between CEO duality and company performance is quite robust, as noted by Bhasker et al. (2019). The agency theory and the stewardship theory present opposing viewpoints on the question of whether or not the chairman and the chief executive officer should share authority. (Habbash, 2019). Proponents of the agency theory argue that separating the two roles is crucial for monitoring the efficacy of the board over management because it provides cross checking evidence against the chance of overambitious plans by the CEO. When the same person is in charge of both departments, they are more likely to make decisions that benefit themselves at the expense of the business. These opinions favor a structure where the roles of governor and CEO are held by different people to facilitate more effective board oversight (Asogwa et al., 2019).

Stewardship theory advocates, on the other hand, think that a CEO with strategic vision can guide the board to execute a company's objectives with minimal interference from the board, and that this improves the decision-making process overall. Jensen (1993) contends that having the CEO double as the board chairman gives the CEO more say over what information is made public. However, the split of CEO and chairman responsibilities was not investigated in terms of its impact on profits management. According to Khan (2019), a company's board of directors is more effective at monitoring if it is shielded from the impact of the chief executive officer.

2.2.3 Effect of Board Size on Earnings Management

Board size consists of and describes the number of directors of a company. It is reasonable to anticipate that the number of directors on the board will have a sizeable effect on the credibility of the financial statements. The optimal board size, whether small or large, has become a significant topic of discussion in relation to its impact on the financial reporting of companies. Proponents of agency theory argue that board effectiveness is influenced by various factors,

including the size of the board (Jensen, 1993). It can be argued that a larger board enhances the oversight function, leading to potential effects on company performance. A larger board is believed to facilitate more active monitoring of management, as it involves a greater number of members. From the perspectives of the resource-based view and the resource dependency theory, larger boards benefit from a diverse range of human expertise and experience, which enhances the quality of board decisions and ultimately increases the company's value.

The optimal board size remains a subject of ongoing debate, with varying viewpoints. Firms with larger boards may face challenges such as poor communication, slower decision-making processes, and increased susceptibility to CEO control. The coordination and processing of issues can be more cumbersome in larger boards, making decision-making more challenging. On the other hand, smaller boards tend to have lower overall costs. Al-Said (2021) argues that firms with smaller board sizes tend to exhibit superior performance compared to those with larger board sizes, mainly due to issues such as poor communication and slow decision-making in larger boards.

In summary, the influence of board size on financial reporting and company performance is a complex matter, with different perspectives and considerations. The optimal board size is still subject to ongoing discussion and further research. The quality of financial records may be significantly affected by the number of directors. The debate between small and large board sizes, and how each impacts a company's financial reporting, has been ongoing for some time. Large boards, according to advocates of the agency theory, are disorganized and unable to make a timely decision because they are too crowded to hear the opinions of all of their members. (Doan,2021). The number of directors was used as a proxy for the size of the board, which was hypothesized to have a detrimental impact on financial results. As a board grows in size, it becomes more difficult for its members to effectively communicate with one another, leading to the emergence of discordant groups and increased potential for conflict. Firm success is typically impacted by these problems. (Emeka & Alem, 2016).

Using data from 2011-2015 and a sample of 20 Bahraini listed companies, Alareeni (2018) found a negative correlation between EM and board size, suggesting that larger boards provide more effective oversight and reduce managers' incentives to manipulate earnings. According to Ebrahim (2017), bigger boards tend to have smaller spending budgets. As a board grows larger, it tends to become more symbolic and shirk its surveillance and control responsibilities,

which leads to agency problems (director free riding) (Beiner et al., 2014). Large boards are inefficient due to information overload, sluggish decision-making, and free-riding directors. (Lipton & Lorsch, 1992). When managing a big board, CEOs are more likely to use sophisticated tactics like forming alliances and dividing and conquering to get their way. (Alexander et al., 1993). This suggests that smaller boards may be better able to monitor unethical managerial behavior than their bigger counterparts. A favorable and statistically significant correlation between board size and EM is reported by Türegün (2018), Kao and Chen (2014), Rahman et al. (2016), and Jaggi and Leung (2017). Ferris and Liao (2019), using data from 51,147 firms across 46 countries and one year of data per firm, discovered no correlation between board size and EM. No correlation was discovered between companies traded on the Tunisian Stock Exchange (Chouaibi, Harres, and Brahim 2018).

Board size is negatively correlated with profits management, according to investigate on American corporations done by Gao et al. (2019). They hypothesised that bigger boards would be better able to monitor and manage, which would make opportunistic reporting less likely. The effect of size of the board on income quality in relation to business size in the US market was also investigated by Mohd-Sanusi et al. (2020). Communicating an opportunity advantages of an array of boards of directors, they found that higher board sizes were related with improved profits quality, regardless of business size. The found connections between size of the board and profits quality may not be immediately applicable to non-financial businesses at the NSE, since there are changes in sample makeup and criterion from US enterprises.

In their study of American companies, Zhuang et al. (2020) discovered that bigger boards were associated with better quality profitability. Better monitoring and supervision, they said, is a direct result of boards that are bigger and more varied. Boards with more members may have trouble coordinating and keeping tabs on the company because of the negative correlation between board size and profits quality that Ertugrul and Ince (2020) found in their study of Latin American companies' financial data. The different viewpoints on the correlation between board size and profits quality are shown by these contradictory results.

The impact of board size on earnings quality has been extensively studied, with most research concentrating on the American setting. Notable contributions to this body of knowledge include Gao et al. (2019), Barua et al. (2019), and Zhuang et al. (2020). However, studies focusing on Kenya or other African nations have been few and far between. As a result, research on the

relationship between board size and profits quality for non-financial companies traded on the Nairobi Securities Exchange is lacking in this particular geographic area. To fill this knowledge vacuum, this research compares and contrasts the corporate governance frameworks, regulatory environments, and business practices of Kenya with those of other African states in order to identify the particular dynamics and difficulties encountered by Kenyan enterprises.

In their study of Chinese companies, Xu et al. (2019) found that larger boards were more likely to engage in profits management. There would be less room for financial data manipulation with bigger boards, they said, because of better monitoring and oversight. A similar positive correlation was discovered by Wu and Li (2020) when they studied the impact of board size compared to business size on earnings quality in Chinese enterprises. Their research suggested that better corporate governance procedures, which in turn lead to improved profits quality, are possible when boards are bigger in comparison to the size of the firm. Board size may have a different effect on profits quality in Chinese companies and non-financial enterprises listed on the NSE due to cultural and institutional differences. The importance of board size and financial reporting standards may vary between the NSE and Chinese markets because to differences in corporate governance principles, regulatory frameworks, and business practices.

2.2.4 Board diversity and Earnings Management

According to Morrison et al. (2014), women on board complement their male counterparts in management, which improves board's effectiveness. Previous research has found that female leaders' decision-making and risk-taking styles differ from their male counterparts. Women leaders, according to Barber and Odean (2017), tend to be more conservative than their male counterparts. O'Fallon and Butterfield (2018) and Vermeir and Van Kenhove (2018), both experts in the area of corporate governance, found that female directors made and acted in a more ethical manner when making decisions. As a result, they are less likely to take advantage of their positions as managers (Zalata et al., 2019). Moreover, other studies have shown that women directors are ethical and take minimal risk in financially focused decision-making. (Doan & Iskandar-Datta, 2020; Yahya et al., 2020). Female directors are particularly valuable in male-dominated fields, according to research by Chen et al. (2019). The authors also found that companies with a majority of women on their boards had better financial results because their directors were less likely to be overly aggressive in their investment and purchase

strategies. That's why it's more likely that boards with women on them will rein in unethical tactics like EM.

Research into the correlation between female parity on boards and EM has yielded conflicting results. According to research by Arun et al. (2018), companies in the UK with a greater proportion of women and independent women on the board of directors tend to adopt more conservative EM practices and achieve better financial results. Similar findings are found in an investigation of the correlation between gender diversity on boards and the prevalence of earnings manipulation in European nations conducted by Kyaw et al. (2017According to Kyaw et al. (2017), in countries with advanced gender parity, a board with balanced gender representation is more effective in detecting and preventing revenue manipulation. Lakhal et al. (2017) observed a correlation between increased representation of women on boards of directors and decreased earnings manipulation in a sample of 170 French companies over a four-year period. Saona et al. (2018) conducted research on nonfinancial businesses in 10 European countries, including Finland, from 2006 to 2016, and found that a diverse board is likely to reduce earnings manipulation practices.

On the other hand, Arioglu (2020) examined non-financial companies listed on the Borsa Istanbul between 2009 and 2017 and did not find evidence of female directors impacting earnings manipulation. Similarly, Abdullah and Ismail (2016) studied non-finance firms listed on Bursa Malaysia over a four-year period from 2008 to 2011 and found that the presence of women on boards and audit committees did not significantly affect earnings manipulation. Sun et al. (2017) also reported no association between the proportion of female directors on audit committees and earnings manipulation.

In summary, research findings regarding the impact of gender diversity on earnings manipulation vary. While some studies suggest a positive relationship between gender-balanced boards and reduced manipulation, others have found no significant association. It is important to consider the context and specific characteristics of the companies and countries under investigation when interpreting these findings.In Kenya , Were (2018) assessed the effect of board gender diversity on the performance of commercial banks. The goal of this research was to determine whether or not private banks in Kenya benefited from having more women represented on their boards of directors. Research was conducted over a 12-year time frame. (1998-2009). The step-wise regression technique was used in this research. The research found

that commercial bank boards in Kenya were predominantly male and included few female representatives. The research also found that there were only eight women on the board of directors. The research found, however, that commercial banks in Kenya did not significantly benefit from having more women on their boards of directors. Letting et al.... (2017) looked into the connection between board diversity and EM performance in NSE-listed businesses. Board members' ages, sexes, areas of expertise, and levels of schooling were the study's independent variables. No statistically meaningful relationship was found between the number of women on a board and any of the EM metrics. Without taking into account the differences between businesses operating in various sectors, study will look at manufacturing firms listed in Nairobi securities exchange.

Research by Murtaza et al. (2020) on European banks indicated that higher levels of gender diversity among C-suite executives were associated with better financial performance. Nevertheless, further investigation into the precise pathways by which gender diversity impacts earnings quality in European nations is necessary, notwithstanding these results. To better understand the elements that contribute to the positive link between diversity of genders and quality of income, further study in this area is needed. This would be helpful for firms who want to enhance their monetary reporting processes. Diversity in gender on boards is positively associated with revenue quality, according to Murtaza et al. (2020) in European financial organizations. This means that non-financial companies stated on the Nairobi Securities Exchange (NSE), Kenya, that have more female directors may have better earnings excellence overall. However, it should be noted that the investigations that were examined and their results could not be applicable to the Kenyan setting for several reasons, including geography and context.

Diversity of genders on committees and its effect on profits quality may be shaped by Kenya's own cultural and social norms. How diversity by gender is seen and put into practice in corporate oversight may be influenced by several cultural influences. The NSE's diversity of genders, the businesses and sectors that make up the exchange, and the effect this has on the quality of profits and financial results may all vary from country to country in Europe. Consequently, it was critical to study how diversity in gender affected the profitability of nonfinancial companies traded on the Nairobi Securities Exchange.

Adams and Meziane (2018) discovered that diversity of genders on board levels had a favorable impact on profits quality. This is because gender diversity brings various viewpoints and reduces prejudice. Similarly, Muttakin, Khan, and Subramaniam (2020) found that genderdiverse panels in Europe are more open, accountable, and ethical, which in turn improves the quality of profits. These results highlight how gender diversity improves the quality of wages in European nations. Diversity of genders on board positions may have similar positive impacts on earnings quality in Kenya, but the perception and adoption of this trend may be influenced by cultural and social conventions that are unique to Kenya.

There have also been research looking at the correlation between gender diversity and highquality incomes in American nations. In a study of American companies, Gao et al. (2019) found that as diversity of genders on boards rose, the quality of profits went up. Researchers in Latin American countries including Argentina, Brazil, and Mexico found a positive association between gender balance in executive positions and quality of income (Hernandez-Perdomo et al., 2020; Carter et al., 2020). The degree to which gender diversity is appreciated and supported in business environments may, however, vary between Latin American, African, and American nations according to cultural and social conventions. The number of women in executive posts and the quality of their wages are affected by regional norms, attitudes, and expectations about gender roles and equality, which vary greatly. Furthermore, comparable research conducted at the NSE may yield different results because to differences in legislative frameworks and rules concerning women's representation and business conduct among nations.

2.3 Conceptual Framework

The conceptual framework serves as a basis for understanding the relationships between the variables that contribute to the problem under investigation. It provides a broad set of ideas that explain the connection between the independent variables and the dependent variable. The following diagram illustrates the conceptual framework for this study.

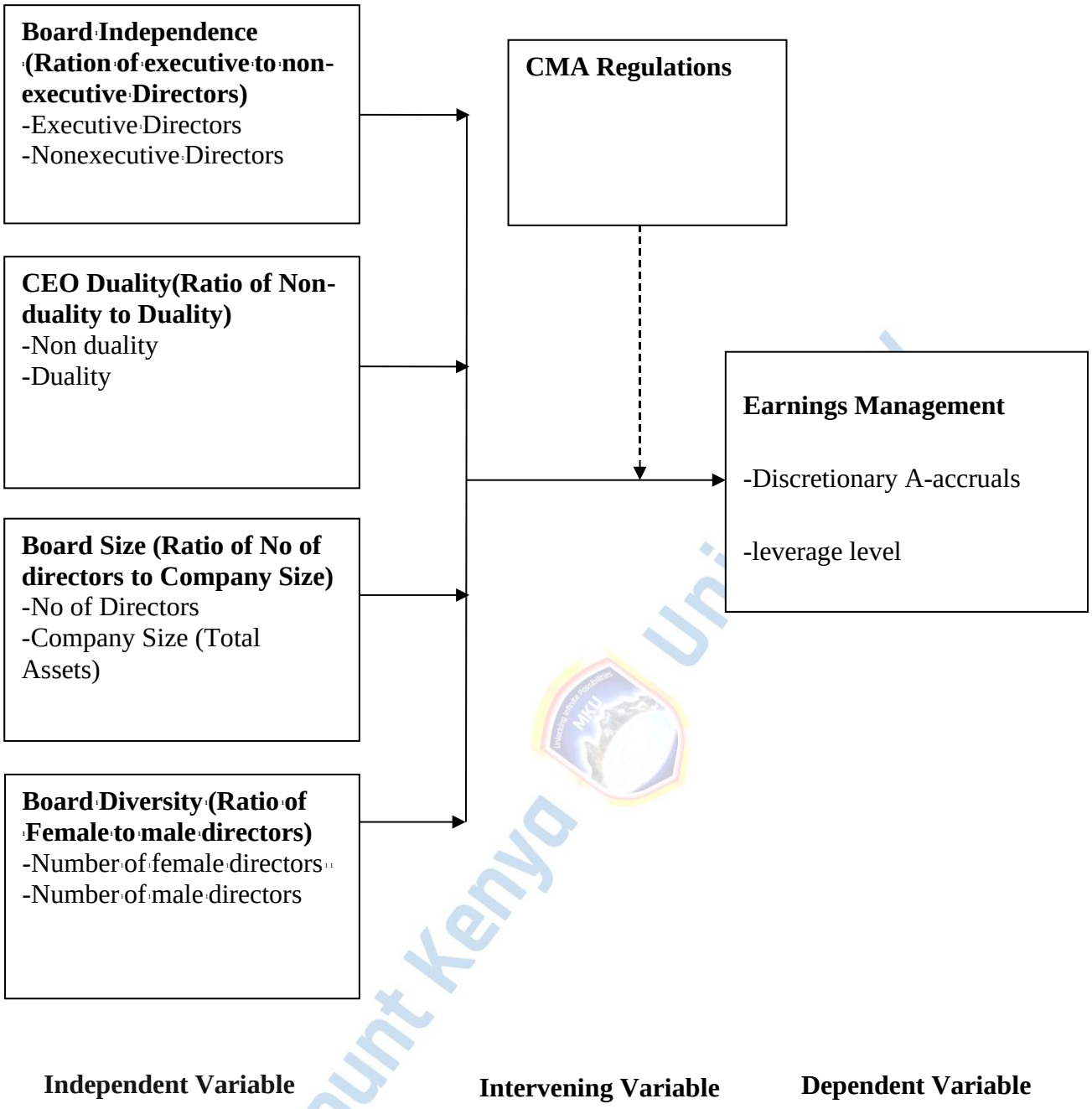

Figure 1: Conceptual Framework

Figure 1 serves as the foundational framework for this research. It illustrates a comprehensive view of the connections between board characteristics and earnings management, encompassing both direct and indirect relationships. The direct relationship specifically indicated the immediate correlation between board characteristics and earnings management. Within board characteristics, there are four distinct variables: board independence, CEO duality board size and board diversity. The conceptual framework suggests that the number of directors on a board, along with their age, gender, educational background, professional expertise, and nationality, exert an influence on a firm's earning management. Additionally, the framework shows that board independence is exemplified by the presence of non-executive directors on the board and the segregation of roles between the CEO and the Chairperson. As per the framework's perspective, these elements of board independence impact a firm's Earnings management.

Figure 1 also illustrates that the direct connection between board characteristics and earnings management is subject to the influence of a moderating variable known as CMA regulations. Consequently, the association between board characteristics and earnings management relies on the specific characteristics of the firm, such as its Discretionary accruals, leverage level and asset structure. The, intervening effect depicted in Figure 1 signifies that the CMA regulations serve as the underlying conditions that determine how the relationship between board characteristics and earning management unfolds. Consequently, the regulations can introduce variations in the relationship between board characteristics and earnings management.

2.4 Literature Recap

This theoretical review discusses four prominent theories used to understand the impact of board characteristics on earnings management in manufacturing firms listed in the Nairobi Securities Exchange. The four theories are Agency theory, Stewardship theory, Stakeholder theory, and Positive accounting theory. Agency theory focuses on the divergent interests between shareholders (principals) and management (agents), and proposes that managers may pursue their self-interests rather than the interests of shareholders. The board is viewed as a mechanism to mitigate the agency problem by monitoring and controlling management. Stewardship theory, on the other hand, views managers as stewards who act in the best interests of shareholders and seeks to maximize their welfare. The board is seen as supporting and advising management, rather than monitoring and controlling them.

Stakeholder theory expands the scope of corporate governance beyond shareholders to include other stakeholders such as employees, customers, suppliers, communities, and the environment. The board is expected to balance the interests of all stakeholders and create shared value. Positive accounting theory aims to explain the choice and implementation of accounting methods based on the incentives and constraints faced by managers and auditors. The theory considers the interaction between managers, auditors, and regulators, and highlights the importance of institutional factors in shaping accounting practices. These theories shed light on the role of board characteristics in earnings management, and provide a framework for empirical testing. Despite their strengths, they have limitations, such as assuming self-interest and formal controls in isolation, neglecting social and ethical factors, and focusing exclusively on external factors. Further research is needed to integrate and extend these theories to better understand the complexity of corporate governance and earnings management.

Specifically, the study looks at the relationship between board independence and earnings management, finding mixed results in previous studies. Some studies find a negative correlation between board independence and earnings management, indicating that independent boards limit managers' discretion to manipulate earnings. Other studies find no significant correlation, suggesting that board independence alone may not be sufficient to prevent earnings management. The study also examines the effect of CEO duality on earnings management, again finding mixed results. Some studies find that CEO duality increases managerial discretion and reduces the efficacy of monitoring action, while others find no significant correlation between CEO duality and earnings management.

Additionally, the study investigates the relationship between board size and earnings management, finding varying viewpoints on the optimal board size. Advocates of agency theory argue that larger boards enhance oversight and monitoring functions, while opponents claim that larger boards suffer from communication breakdowns, coordination failures, and free-riding behavior. Lastly, the study explores the effect of board diversity on earnings management, noting that female directors bring complementary skills and perspectives to the boardroom, and are associated with better financial performance, more conservative risktaking, and higher ethical standards. However, the relationship between gender diversity and earnings management is inconclusive, with some studies finding a negative correlation and others finding no significant association.

2.5 Research Gap

Due to the intense competition in today's business world, the board of directors of any given company has been the subject of management studies for over a century, giving rise to a wealth of material in the field of governance. Perhaps issues like the importance of boards' roles in governance oversight, the widespread belief that boards are often negligent in this area, and their presumed links to high-profile business failures have kept interest in board research going strong. Some research has found that board characteristics do have an impact on the EM of companies, while other research has found no such impact. Despite the consistent interest and extensive research into the connection between corporate boards and EM, empirical findings do not agree. This is the basis of this study to evaluate the influence of board characteristic on earnings management in the manufacturing firms listed in the Nairobi securities exchange.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, an overview of the research methodology is provided, focusing on the methods and procedures used for conducting the study. The key aspects covered include the research design, the target population, the sample selection and sampling techniques, the type of data collected, the instruments that were utilized for data collection, as well as the analysis and presentation of the findings.

3.1 Research Design

According to Cooper and Schindler (2003), the term "research design" refers to the plan and structure of an investigation that is formulated to obtain answers to research questions. It encompasses the organization of data collection and analysis in a manner that efficiently achieves the research objectives through empirical evidence. In line with this, the present study employed a descriptive research design. Kothari (2004) defines descriptive research as a type of inquiry that involves fact-finding and exploration, aiming to describe the current state of affairs. Descriptive research design seeks to uncover and report on the existing conditions and endeavors to describe various aspects such as behavior, attitudes, values, and characteristics (Mugenda & Mugenda, 2013). The choice of a descriptive study design for this research is motivated by the interest in examining the current situation in the field, without manipulating variables. This design specifically facilitated the collection of precise information regarding board characteristics and their impact on earnings management in manufacturing firms listed on the Nairobi Securities Exchange.

3.2 Target Population

According to Mugenda and Mugenda (2013), the term "target population" refers to the smallest entities that share common characteristics and to which a researcher aims to generalize the findings of a study. In the case of this study, the target population consisted of all eight manufacturing firms that were listed on the Nairobi Securities Exchange as of December 31, 2022 (NSE, 2023).

Table 1: Target Population

	Manufacturing and allied firms	Trading Symbol
1.	A.Baumann & Co Ltd	BAUM
2.	B.O.C Kenya Ltd	BOC
3.	British American Tobacco Kenya Ltd	BAT
4.	Carbacid Investments Ltd	CARB
5.	East African Breweries Ltd	EABL
6.	Eveready East Africa Ltd	EVRD
7.	Kenya Orchards Ltd	ORCH
8.	Unga Group Ltd	UNGA

Source: NSE 2023

3.3 Sampling Design

As there are only eight listed manufacturing firms, sampling was not be conducted for this study. Instead, a census approach was used, meaning that data was collected from all eight listed manufacturing firms at the Nairobi Securities Exchange. The data was extracted from the annual reports of these firms.

3.4 Data Collection Instrument

For this study, secondary data was utilized, specifically extracted from the annual reports of all the listed manufacturing companies in the Nairobi Securities Exchange (NSE). The data covered the period from 2019 to 2023. The focus of data collection was on various board characteristics such as board independence, CEO duality, board size, and board diversity. Additionally, financial information such as net income and operational cash flow was collected from the financial statements. To facilitate data collection and analysis, a data collection sheet provided in Appendix I was employed.

3.5 Diagnostic Test

Prior to regression analysis, diagnostic tests were conducted on the variables to ensure the reliability and accuracy of the analysis model for estimation and forecasting purposes. The study focused on testing assumptions such as heteroscedasticity, normality, and

multicollinearity. These tests aimed to assess the presence of any issues or violations of assumptions that could impact the validity of the regression analysis results.

3.5.1 Normality

This is the assumption that the scores on a continuous variable are normally distributed about the mean. To assess the normality of the residuals, the study utilized the skewness and kurtosis probabilities. This test examines whether the residuals exhibit a normal distribution. In the statistical test, data that conform to the normality assumption had a p-value greater than the significance level (0.05) set for the skewness and kurtosis probabilities. In order to confirm that the residuals follow a normal distribution, the research used the Jarque-Bera test, which is more effective and definitive than the graphical inspection technique. The assumption used in this test is that the residuals do not deviate significantly from a normal distribution.

3.5.2 Multi-collinearity

When there is a correlation between several independent variables, this is called multi-collinearity. When the correlation between the independent variables is strong (r=0.9 or above), we say that there is multi-collinearity. This is a highly serious issue for several regressions. If two variables have a bivariate correlation of 0.7 or higher, you should "think carefully before including them in the same analysis," according to Bryman and Cramer (2014). Multiple correlations make it hard to separate the effects of the independent variables on the dependent one, and they also cause the standard errors of those variables to be inflated (Yoo et al., 2014). According to Cai, Wu, Xu, and Zeng (2017), removing correlated independent variables from a regression model is one way to fix multicollinearity. Looking for evidence of multicollinearity Tolerance level and Variance Inflation Factor were used. It is considered acceptable to have a VIF lower than 10 or a tolerance level higher than 0.1.

3.5.3 Homoscedasticity:

Heterscedasticity is a term used in regression analysis to describe a situation where the dependent variable's variance fluctuates across different sets of data. Homoscedasticity, in contrast, refers to a scenario in which the dependent variable's variance is constant across all data sets (Huang & Yao, 2014). According to Gelfand (2015), the impact of deviating from the assumption of homoscedasticity grows in proportion to the degree of heteroscedasticity. The

researchers used the Breusch-Pagan/Cook-Weisberg test to detect heteroscedasticity. The existence of heteroscedasticity is contended for by the alternative hypothesis, whereas the constant variance is contended for by the null hypothesis. The violation of homoscedasticity leads to an increase in heteroskedasticity.

3.5.4 Testing for serial correlation (Independence):

Data with low or nonexistent autocorrelation cannot be used for linear regression analysis. When the residuals are not completely independent of one other, autocorrelation occurs. The impact of removing certain variables is the cause of autocorrelation. As serial correlation biases standard errors in linear panel-data models and makes results less efficient, researchers must define serial correlations in the idiosyncratic error word in a panel-data model. Wooldridge tested this premise with an autocorrelation. The study tried to test the zero hypothesis that there was no serial first-order correlation.

3.5.5 Unit Root Test

The reason for stationarizing data was to obtain a meaningful sample mean, variance that can demonstrate future behavior if series is stationary. But if series are constantly increasing, the mean was underestimated if series are constantly increasing (Costantini & Martini, 2010). Unit root analysis involves testing time series data for stationary properties. In order to reduce the number of time observations needed to get statistical power, this research used the PhilipsPerron unit-root Test (PP) to look for unit roots in panels that integrate data from the time series and cross-section dimensions. The researcher used this technique in this study since the PP test has been found to have superior test power by researchers to analyze long-run relationships in panel data. In the unit root test, the following hypothesis was used.

The null hypothesis is $\mathbf{H_0}$:$\gamma = 0$, Residuals have unit root (residuals are non-stationary)

The alternative i**s** $\mathbf{H_1}$: $\gamma < 0$, Absence of unit root (residuals are stationary)

3.5.6 Hausman Test (Choice of Model)

When analyzing panel data, the research settled on using either a random effects or a fixed effects model. According to Baltagi (2008), one model presupposed a common intercept that

fluctuated at random among companies, whereas the other model assumed that each business had its own unique intercept and that the impacts of the variables were continuous across time. Estimates were performed for both the fixed and random effects models to help identify the most appropriate one. To ascertain whether the influence was constant or fluctuating, Guggenberger (2010) used Hausman's 1978 specification test. In order for the random effect to be an effective estimator, it must be determined whether or not the null hypothesis of E (μi/xit) = 0 is rejected, the estimation of the fixed effect gives a better or more efficient beta estimate.

3.6 Data Analysis and Presentation

The collected data underwent an editing process conducted by the researcher. Subsequently, it was entered into Excel and then transferred to STATA for further analysis. Descriptive statistics was computed to determine the mean, standard deviation, minimum, and maximum values of the variables. Pearson's correlation analysis was conducted in STATA to generate a pairwise correlation matrix, providing insights into the direction and strength of the relationships among the variables under study. The researcher employed panel regression models with Tobin's Q and accruals quality measurement as the dependent variables to assess the suitability of the models using F-statistics. The analyzed data was presented using frequency tables, facilitating the interpretation of the research findings. The interpretation of the data was conducted within the context of the research problem.

The panel regression model was as follows:

$$Y = Y_{i,t} = \beta_0 + \beta_1 X_{1i,t} + \beta_2 X_{2i,t} + \beta_3 X_{3i,t} + \beta_4 X_{4i,t} + \boldsymbol{\varepsilon}_{i,t}$$

Where: Y it = Earnings Management

X_1 = Board Independence

X_2 = CEO duality X_3 = Board size X_4 = Board diversity

β0 is the intercept and β1,β2, β3and β4 are the coefficients

e = error term

i= the specific firm, t=time in years

Y= ACCRUAL = (ΔCA –Δ Cash) – (ΔCL -ΔSTD -ΔTP) –DEP

Where;

ΔCA = Change in Current Assets.

Δ Cash=Change in Cash/ Cash equivalents.

ΔCL= Change in Current Liabilities.

ΔSTD= Change in Short-Term Debts included in Current Liabilities.

ΔTP= Change in Income Taxes Payables

DEP= Depreciation and Amortization Expense

3.7 Ethical Considerations

Ethics played a vital role throughout all stages of this research study, from planning to conducting the study. The confidentiality of participants' information was strictly maintained, and no details was shared with any third party. The researcher made every effort to uphold privacy and ensure the gathered information remains protected. Throughout the research process, the researcher respected the subjects' privacy and adhere to high levels of integrity, focusing solely on the primary objective of data collection.

Prior to data collection, the researcher obtained necessary permissions from relevant authorities, such as Mount Kenya University and the National Commission of Science, Technology, and Innovation. The researcher demonstrated respect for and value the cultural norms of these organizations. Additionally, the researcher exhibited punctuality, respect the decisions made by respondents, and employ a participant-friendly method of data collection.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter entails analysis of data, presentation, interpretation and discussion of research findings based on the objectives of the study. The main objective of this study was to examine how board characteristics influence earnings management within manufacturing firms that are listed on the Nairobi Securities Exchange. The study specifically sought to establish effect of board of directors' independence, board of directors' Size, board directors' diversity and CEO duality on earnings management, descriptive statistics, regression and correlation analysis have computed to in discussing the findings. The findings are presented in tables and figures.

4.2 Descriptive Statistics

The research used descriptive statistics to characterize the data set's properties and characteristics. In it, the study's data and metrics were summarized. Among the descriptive statistics used were measures of central tendency and spread. Minimum, value, variance, standard deviation, and maximum values were all used as measures of spread in this research. Mean is one of the central tendency metrics included in this dataset. Both the dependent variable (Earnings management) and the independent variables (board of directors' independence, CEO duality, board directors' diversity, and board of directors' size) had their standard deviation, mean, maximum, and lowest values computed in the research. Table 2 displays the variable's descriptive statistics from 2019 to 2023.

Table 2: Descriptive Statistics Between 2019 and 2023

Earnings management	Board Independence	CEO Duality	Board Diversity	Board Size
		2019		
N 8	8	8	8	8
Min 0.2753583	0.4	0.104286	0.2	0.109282
Max 0.6387501	0.75	0.303	0.428571	0.165666
Mean 0.4342267	0.646429	0.156091	0.316071	0.138144
Std Dev 1.277415	0.114583	0.060789	0.078192	0.020488
		2020		
N 8	8	8	8	8
Min 0.2884795	0.4	0.166667	0.2	0.109933
Max 0.6387501	0.8	0.33	0.5	0.151582
Mean 0.4268317	0.668353	0.192609	0.298016	0.128109
Std Dev 1.204869	0.130655	0.081567	0.112542	0.012112
		2021		
N 8	8	8	8	8
Min 0.2780317	0.5	0.131	0.2	0.096502
Max 0.6299191	0.777778	0.331	0.5	0.188705

Mean	0.4273122	0.66002	0.174554	0.338641	0.134772
Std Dev	1.385231	0.095325	0.108527	0.106818	0.026514
			2022		
N	8	8	8	8	8
Min	0.2612784	0.4	0.166667	0.142857	0.096592
Max	0.6204405	0.8	0.275	0.5	0.171179
Mean	0.4234278	0.657193	0.181101	0.365774	0.128136
Std Dev	1.229214	0.129982	0.08035	0.11492	0.026083
			2023		
N	8	8	8	8	8
Min	0.2683947	0.4	0.166667	0.142857	0.106901
Max	0.6319985	0.8	0.275	0.5	0.155911
Mean	0.4246601	0.657193	0.1563	0.344941	0.128152
Std Dev	1.270427	0.129982	0.071956	0.101425	0.016789

Source: Research Data (2024)

Board independence was measured using ratio of independent directors to the total directors. As indicated in Table 2, the mean ratio of independent directors to the total directors in 2019 was 0.65(65%) and it varied from 40% to 75%. The mean ratio of independent directors to the total directors in 2020 was 0.67(67%) and it varied from 40% to 80%. In 2021, mean ratio of independent directors to the total directors was 0.66(66%) and it varied from 50% to 77%. In 2022, mean ratio of independent directors to the total directors was 0.66(66%) and it varied from 40% to 80%. Similarly, the mean ratio of independent directors to the total directors in 2023 was 0.66(66%) and it varied from 40% to 80%.

CEO duality was measured using ratio of CEO duality to non-CEO duality. In 2019, the mean ratio of CEO duality to CEO non-duality was 0.157(15.6%) and it ranged from 10.4% to 30.3%. In 2020, the mean ratio of CEO duality to CEO non-duality was 0.193(19.3%) and it ranged from 16.7% to 19.3%. The mean ratio of CEO duality to CEO non-duality in 2021 was 0.175(17.5%) and it ranged from 13.1% to 33.1%. The mean ratio of CEO duality to CEO nonduality in 2022 was 0.181(18.1%) and it ranged from 16.7% to 27.5%. Lastly, in 2023, the

mean ratio of CEO duality to CEO non-duality was 0.156(15.6%) and it ranged from 16.7% to 27.5%.

Board diversity was measured using ratio of female directors to male directors. In 2019, the mean ratio of female to male board directors was 0.32(32%) and it ranged from 20% to 43%. In 2020, the mean ratio of female to male board directors was 0.30(30%) and it ranged from 20% to 50%. The mean ratio of female to male board directors in 2021 was 0.34(34%) and it ranged from 20% to 50%. The mean ratio of female to male board directors in 2022 was 0.37(37%) and it ranged from 14% to 50%. Lastly, in 2023, the mean ratio of female to male board directors was 0.34(34%) and it ranged from 14% to 50%. According to Azmi and Barrett (2013), women tend to be cautious, detail-oriented, and have strong financial and accounting acumen. This has prompted scholars to shift their attention back to how gender diversity on boards affects bottom-line results. Boards benefit from having members from a variety of backgrounds and experiences since it allows for fresh viewpoints and insights (Carter, Simkins and Simpson, 2003).

Board Size was measured using ratio of Total number of board directors to company size as measured by total assets. The figures were first converted to natural logs before computing the ratios. In 2019, the mean ratio of total number of board directors to company size was 0.138 and it ranged from 0.109 to 0.166. In 2020, the mean ratio of total number of board directors to company size was 0.128 and it ranged from 0.110 to 0.152. The mean ratio total number of board directors to company size in 2021 was 0.135 and it ranged from 0.100 to 0.189. The mean ratio of total number of board directors to company size in 2022 was 0.097 and it ranged from 1% to 20%. Lastly, in 2022, the mean ratio of total number of board directors to company size was 0.128 and it ranged from 0.110 to 0.156

Finally, in 2019, the mean earnings management was 0.434 and it ranged from 0.275 to 0.638. In 2020, the mean earnings management was 0.426 and it ranged from 0.288 to 0.639. The mean earnings management in 2021 was 0.427 and it ranged from 0.278 to 0.630. The mean earnings management in 2022 was 0.423 and it ranged from 0.261 to 0.620. Lastly, in 2023, the mean earnings management was 0.425 and it ranged from 0.268 to 0.631.

Table 3: Panel Data Descriptive Statistics'

	Earnings management	Board Independence	Board CEO Duality	Board Diversity	Board Size
N	40	40	40	40	40
Min	0.2612784	0.412	0.102	0.142857	0.096502
Max	0.6387501	0.841	0.331	0.5344	0.188705
Mean	0.4272917	0.657837	0.172131	0.332689	0.131462
Std Dev	1.208382	0.114748	0.081309	0.101002	0.020464

Source: Research Data (2024)

Based on Table 3, the mean earnings management score during the study period (2019 to 2023) was found to be 0.427, with a standard deviation of 1.12. This result suggests that, on average, firms engaged in moderate levels of earnings management during the five-year period. Additionally, the minimum and maximum earnings management scores were reported as 0.261 and 0.639, respectively implying that the level of earnings management varies widely among firms, with some experiencing minimal management and others displaying substantially higher scores. Consistent with prior research, our finding shows that earnings management remains prevalent in today's financial reporting landscape (Bartov et al., 2002; Cohen et al., 2004; Myers et al., 2003). Bartov et al. (2002) contended that aggressive earnings management harms long-term shareholder wealth creation and undermines capital market trust.

Regarding board characteristics, the mean ratio of board independence was found to be 0.65 (65%), with a standard deviation of 0.114(11.4%). It ranged from 0.412 (41.2%) to 0.841 (84.1%). These findings hold significance in the realm of corporate governance. Independent directors are often seen as crucial for ensuring effective oversight, as they are believed to bring objectivity and impartiality to board decision-making processes (Yermack, 1996). Research has shown that boards with a higher proportion of independent directors are associated with better corporate governance practices and improved firm performance outcomes (Fama & Jensen, 1983).

Furthermore, the mean ratio of CEO duality was reported as 0.172 (17.2%), with a standard deviation 0.0813 (8.13%). It ranged from 0.102 (10.2%) to 0.331 (33.1%). This indicates that, on average, a relatively small fraction of firms employed a single person serving as both CEO and chairperson. The results suggest that separate persons holding these positions is the preferred choice. Indeed, extensive empirical research demonstrates that splitting the roles of

CEO and chairperson leads to improved corporate governance, heightened firm performance, and lower risk of financial misreporting (David et al., 2004; Finkelstein & Hambrick, 1996; Hillman & Dalziel, 2003). For instance, David et al. (2004) examined 1,500 U.S. publicly traded firms and concluded that separating the positions of CEO and chairperson yielded superior firm performance. Meanwhile, Finkelstein and Hambrick (1996) posited that separating the roles allows for more checks and balances, thereby reducing agency conflicts. Likewise, Hillman and Dalziel (2003) noted that separating the roles improves board monitoring and reduces the possibility of CEO entrenchment.

Moreover, the mean ratio of board diversity was determined to be 0.333 (33.3%), with a standard deviation of 0.101 (10.1%). Notably, the minimum and maximum ratios of board diversity were 0.143 and 0.534, respectively, revealing an insignificant disparity in gender diversity among firms. Despite the growing emphasis placed on the significance of board diversity in contemporary literature, the current study reveals a limited disparity in gender and ethnic diversity amongst the surveyed firms. Similar conclusions have been reached in earlier investigations, such as those conducted by Carter, Simkins, and Simpson (2003), who discovered that merely 12.7% of directors in Fortune 500 corporations were female. Further studies by Campbell and Mínguez-Vera (2008) revealed comparable proportions of female participation on European boards, with Spain being the exception, boasting a comparatively higher percentage of female directors.

Lastly, the mean ratio of board size was reported as 0.131, with a standard deviation of 0.205 The minimum and maximum board size ratios were 0.097 and 0.189 respectively. Interpreting these findings suggests that there is variability in board sizes across companies, with the average board size being approximately 13.1% of the company's total assets. The standard deviation of 0.205 indicates a considerable degree of dispersion around this mean value, implying that some companies have significantly larger or smaller boards compared to the average. The minimum and maximum values provide insight into the range of board sizes observed in the sample. A ratio of 0.097 indicates a relatively lean board, while a ratio of 0.189 suggests a comparatively larger board relative to company size.

This variability in board size could have implications for corporate governance, decisionmaking processes, and board effectiveness. Research has shown that board size can influence board dynamics, with larger boards potentially facing challenges related to

coordination and decision-making efficiency, while smaller boards may benefit from increased cohesion and agility (Daily, Dalton, & Cannella, 2003). Moreover, the composition and structure of boards, including their size, have been linked to firm performance outcomes (Yermack, 1996).

4.3 Diagnostic Tests

To further clarify the research model's appropriateness, the study conducted many diagnostic tests. The findings were rather accurate since the regression analysis assumption was satisfied, which resulted to unbiased estimates. The assumptions were measured using the diagnostic tests. Assumptions of the conventional linear regression model need diagnostic testing prior to regression analysis. In accordance with the hypothesis put forward by long and Ervin (2000), this guarantees that the estimates are both efficient and objective. Regression findings become skewed and untrustworthy when the assumptions are not satisfied, according to Pedhazur (1997). All research variables were subjected to diagnostic tests for normality/linearity, heteroskedasticity, serial autocorrelation, and multicollinearity to guarantee that the investigation was done in accordance with the assumptions.

4.3.1 Normality Assumption

Jarque-Bera, skewness, and Kurtosis were used to test for normality. According to Tabor (2011), a skewness score of less than 2 and a kurtosis value of less than 6 are deemed typical.

Table 4: Normality Test

	Earnings management	Board of directors' independence	CEO duality	Board diversity	Board Size Stats
Skewness	0.298176	-0.94962	-0.39616	-0.02414	0.224919
Kurtosis	1.767958	3.201281	2.112431	2.183584	1.790026
Jargue-Bera	3.123	6.079	2.359	1.115	2.777
Probability	.2099	.0678	.3074	.5727	.2494

Source: Research Data (2024)

All of the variables in Table 4 have a Skewness value below 2. The data was sufficient and conformed to the premise of normality, which means that are regularly distributed. Further evidence for this finding came from kurtosis levels lower than 6. To further confirm the

normalcy, the research also used a more rigorous method called Jarque-Bera (JB). Since the probability value (i.e., p value more than 5% for study variables) for Jarque-Bera was larger than 5%, the null hypothesis could not be rejected in the research.

4.3.2 Autocorrelation Test

Researchers must detect serial correlations in the idiosyncratic term for error of a panel-data model in order to exclude linear panel-data models, where it skew the standard errors and reduces overall efficiency.

Table 5: Testing for serial correlation (Independence)

Wooldridge test for autocorrelation in panel data
H_0: no first order autocorrelation
F(1, 7) = 009
Prob > F = 0.9257

To verify this hypothesis, the research used the Wooldridge test as a tool for autocorrelation. The primary objective of the research was to determine whether or not first-order serial correlation did in fact exist. Based on the results shown in table 5, the research did not detect any serial association of first order. This is because the p-value (0.076) was larger than 0.05, which means that the hypothesis of null could not be rejected. It was determined that the data met the requirements for panel regression evaluation, which meant that the residuals were not linked over time

4.3.3 Multi-collinearity

In a multiple regression model, multicollinearity (also called collinearity) indicates whether any combination of variables are significantly associated, meaning that one of them can be linearly predicted more accurately than the others. For the purpose of checking for collinearity, the investigator used the variation in the inflation factor (VIF). There is a correlation between this component and the degree of multicollinearity in the minimum-squares regression. If the regression coefficient is raised due to collinearity, it provides an indicator that shows the amount of the increase in variance. We should dig further into a variable if its VIF is more than 10. The relevant outcomes are presented in Table 6.

Table 6: Multicollinearity

Variables	Tolerance	VIF
Board of directors' independence	1.1493	0.8701
CEO Duality	1.1376	0.879
Board directors' diversity	1.1783	0.8487
Board directors' Size	1.1159	0.8961

Source: Research Data (2024)

From the VIF findings presented in Table 6, the independent variables did not show any signs of multi-collinearity because the VIF values were less than 10. This simply means that the variables were not highly correlated and therefore, multi-collinearity does not exit. The variables were thus suitable for multiple regression analysis.

4.3.4 Heteroscedasticity Test

According to Vinod (2018), heteroscedasticity occurs when the second component that predicts it exhibits equal variability across ranges of values. In order to check for heteroscedasticity, the researchers in the study used the Breuch-Pagan test. Violating the premise of homoscedasticity has varying degrees of effect, which grows with increasing heteroscedasticity. The equality of the variance and error terms constituted the null hypothesis (Vinod, 2018). According to Park (2018), homoscedasticity cannot be shown if the value is higher than 0.05. Table 7 below shows the results.

Table 7: Breuch-Pagan Test for Heteroscedasticity

H: Constant Variance			
Statistics	Df	Stat Value	P-Value
Chi-square	8	44.31	0.171

Source: Research Data (2024)

The data in table 7 show that the p-value is higher than the chosen 0.05 threshold of significance. We may conclude that there is no evidence of heteroscedasticity in the data, supporting the null hypothesis.

4.3.5 Unit Root Test

The research used Philips-Perron to check for unit roots in panels that merge data from the time series and cross-section aspects. This allows for a smaller number of time observations to be utilized for the test, which improves power. Table 8 displays the findings.

Table 8: Unit Root Test

Variable	Philips-Perron unit-root Test
Earnings management	11.0948 **
	0.0000
Board of directors' independence	7.5851*
	0.0000
CEO Duality	19.4128**
	0.0000
Board directors' diversity	14.3774**
	0.0338
Board directors' Size	10.9012 *
	0.0000

** sig at 1% level, *sig at 5% level

Source: Research Data (2024)

If the p-value for the Philips-Perron test is more than 0.05, then unit roots are present; if it is less than 0.05, then unit roots are not present. The research variables did not have a unit root, according to the findings. Based on these findings, we can go further with inferential statistics, all variables are stationary, and the unit root problem is not an issue.

4.3.6 Hausman Test

In order to analyze panel data, the research choose between a fixed effects and a random effects model. One possibility is that the model is fixed effects, whereas the other is that the preferred model is random effects, which is known as the null hypothesis. Any number below the 5% pvalue was to be chosen as FEM, and any value over that as REM, since the p-value was deemed significant at that level. Table 9 displays the findings.

Table 9: Hausman Test

	(b) Fixed	(B) Random	(b-B) Difference	sqrt(diag(V_bV_B))S.E.
Board of directors' independence	0.40538	0.34397	0.06141	0.065498
CEO Duality	0.33458	0.22553	0.10905	0.088956
Board directors' diversity	0.11397	0.05134	0.06263	0.029436
Board directors' Size	0.16392	-0.0034	0.16732	0.107981

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test:Ho:difference in coefficients not systematic

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)

= 14.713

Prob>chi2 = 0.0010

Source: Research Data (2024)

A chi-square value of 0.010, as shown in table 9, is less than the crucial P value at the 0.05 level of significance, thereby rejecting the null hypothesis that a random effect model is the best. To that end, a fixed effect regression model was used in the research.

4.4 Correlation Analysis

The linearity connection among the variables was evaluated using correlation analysis. Where a value of +1 implies an absolutely positive association between the variables and a value of -1 indicates an absolutely negative relationship, the correlation coefficient may take on values between -1 and +1. A correlation coefficient of zero indicates that the variables in question are unrelated to one another. A correlation coefficient that falls anywhere from 0.0 to 0.19 is deemed very weak, from 0.20 to 0.39 is deemed weak as well, from 0.40 to 0.59 is deemed moderate, from 0.6 to 0.79 is deemed strong, and from 0.80 to 1.0 is deemed very strong.

Pearson moment correlation analysis was used in the research. The research examined the link between the answer variable earnings management and the predicator variables board independence, CEO duality, board size, and board diversity, as well as if there was interdependency between the predicator variables using the correlation coefficient. Table 10 summarizes the relevant findings.

Table 10: Pearson Correlation Analysis

		EM	BI	CD	BD
BI: Board independence	Pearson Correlation	0.3616	1		
	Sig. (2-tailed)	0.0219			
	N	40	40		
CD: CEO duality	Pearson Correlation	-0.4827	-0.4437	1	
	Sig. (2-tailed)	0.0016	0.0041		
	N	40	40	40	
BD: Board diversity	Pearson Correlation	0.5658	0.1818	0.2858	1
	Sig. (2-tailed)	0.0001	0.2616	0.0739	
	N	40	40	40	40
BS: Board size	Pearson Correlation	0.1107	0.2406	0.382	0.204
	Sig. (2-tailed)	0.4965	0.1348	0.015	0.2067
	N	40	40	40	40

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

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

BI=Board independence, **CD**=CEO duality, **BD**=Board diversity, **BS**=Board size, **EM**=Earnings management

Source: Research Data (2024)

There was a small but statistically significant positive correlation between board independence and earnings management at NSE-listed industrial companies (r = 0.3616, P=0.0219). The results corroborate those of Manokaran et al. (2018), who found a favorable and statistically significant correlation between an independent board and effective earnings management. But in their 2019 study, Wasara and Ganda looked at how JSE-listed mining firms' board independence correlated with their company profits management. There was a negative correlation between board independence and ROI, according to the results.

An NSE-listed manufacturing firm's earnings management is somewhat and significantly impacted by having a co-CEO (r=-0.4827, P=0.0016). The findings corroborate those of Papaj-Wlisłocka and Strojek-Filus (2019), who found that the presence of a dual CEO impacts the management of earnings. Chief executive officer duality has a detrimental effect on profitability, liquidity, and capital expenditures in Saudi Arabia, according to Mahboub (2019).

The earnings management of listed manufacturing businesses at NSE is positively and significantly affected by board diversity (r =0.5658, P-0.0001). Results are in line with those of Waweru (2018), who aimed to find out how non-financial companies listed on the Nairobi Securities Exchange (NSE) fared in the market after implementing a more diverse board. The study's findings showed that among Kenyan non-financial enterprises listed on stock exchanges, a more diverse board was associated with better market performance as evaluated by Tobin's Q. Ianniello (2020), Islam (2019), Bagieńska (2016), Mandal and Goswami (2018), and others.

Listed manufacturing businesses at NSE are positively and somewhat (but not significantly) affected by board size when it comes to earnings management (r =0.1107, P=0.4965). Finding no statistically significant effect of board size on profits management, the conclusions are in line with those of King'wara (2020). When looking at earning management as evaluated by ROA and ROE, Agostini, Costa, and Korca (2022) discovered that board size is substantial and positively linked. According to Nikkhoo and Lindbo (2021), there is a positive and significant relationship between firm performance ROA and the following factors: board size, CGD as a non-fungible debt instrument (NFD), and ROA in Nigerian industrial goods. But research by Mohammad, Salleh, Ismail, and Chek (2014) found that larger boards were associated with higher profits for businesses. Board size was shown to have the greatest impact on business profitability, according to the study's results. Board size significantly affects the success of Nigerian manufacturing enterprises, according to Emuebie, Olaoye, and Ogundajo (2021).

4.5 Linear Regression Analysis

4.5.1 Effect of Board independence on Earnings management

Listed manufacturing companies in Kenya on the Nairobi Securities Exchange were the focus of this research, which aimed to determine how having a co-CEO affects earnings management. Ho1, the first null hypothesis, states that, for companies traded on the Nairobi Stock Exchange, there is no correlation between an independent board and effective earnings management. The findings of the fixed effect model, which was based on the Hausman test, are shown in Table 11.

Table 11: Regression Fixed Effect of Board independence

Fixed-effects (within) regression		Number of obs =	40
Group variable: FIRMID		Number of groups =	8
R-sq:		Obs per group:	
within =	0.0785	min =	5
between =	0.1612	avg =	5
overall =	0.1307	max =	5
		F(1,31) =	4.59
corr(u_i, Xb) = 0.0904		Prob > chi2 =	0.0401

EM	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
BS	0.09233	0.043086	2.14	0.040	0.004455	0.18020
_cons	3.40901	0.482026	-7.07	0.000	-4.39211	-2.42591

Source: Research Data (2024)

Based on the amount of data per group, the study demonstrates that the panels were wellbalanced for this bivariate analysis. Taking into account 8 categories of entities, our research made use of 40 observations, suggesting that the panels are quite balanced. The number of observations for each group was 5, with 5 being the lowest, maximum, and average.

Typically, the R^2 is a way to see how much variance in the model's predictors explains the variation in the dependent variable income management. The result obtained from fixed effect model indicated that board independence accounted for 13.07% (Overall R square=0.1307) of the variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. ANOVA determines the model's overall significance. A model F-statistic of 4.59 indicates that the estimated parameters are not zero, or at least not equal to zero. Companies listed on the Nairobi Securities Exchange, Kenya, that are involved in manufacturing have their profits managed differently when their boards are not as involved.

The estimated coefficient of board independence is significantly not equal to zero (β=0.09233, t= 2.14, p-value= 0.040). The P-value is less than 0.05 which implies that the estimated

coefficient is significant at 5% significance level. The estimated coefficient board size here implies that a unit increase in board size would cause the levels of earnings management to increase by 0.092 units. The p-value of the constant is less than 0.05 which shows a significant constant term. The regression model is as shown below

Earnings management= 3.40901+0.09233Board Independence(BI)

The study therefore rejected the null hypothesis that board independence does not affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya and hence that there is significant effect of board independence on earnings management. This implies that increase in board independence would results to increase in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. According to Anese (2018), firms in Nigeria's food and beverage manufacturing industry benefit from board independence standards, particularly those of the explanatory variables (IAS 1, 16, 18, and 23) taken into consideration in this research, which drive profits management. Sales growth, financial liquidity, board independence on financial policy, research and development, and business performance were all positively and significantly correlated, according to Musyoka (2017). In addition, 63% of the variance in business performance was explained by this independence of the board. Marime (2017) investigated the correlation between the autonomy of boards and the market worth of Kenyan insurance firms. The research found that having an independent board significantly improves a company's reputation and, by extension, its worth.

4.5.2 Effect of CEO duality on Earnings management

The study sought to determine the effect of CEO duality on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The second null hypothesis denoted, **H_{o2}:** There is no statistical association between CEO duality and earnings management in firms listed on the Nairobi Stock Exchange. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Table 12.

Table 12: Regression Fixed Effect of CEO duality on Earnings management

Fixed-effects (within) regression	Number of obs =	40
Group variable: FIRMID	Number of groups =	8

R-sq: Obs per group: within = 0.1544 min = 5 between = 0.2767 avg = 5 overall = 0.2330
max = 5

F(1,31) = 5.66

corr(u_i, Xb) = -0.1388 Prob > chi2 = 0.0237

EM	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
CD	-0.464867	0.195388	-2.38	0.024	-0.866371	0.06336
_cons	-1.80143	0.381515	-4.72	0.000	-2.57954	-1.02333

Source: Research Data (2024)

The results demonstrate that, according to the amount of observations per group, the panels were well-balanced for this bivariate analysis. The result obtained from fixed effect model indicated that CEO duality accounted for 23.3% (Overall R square=0.2330) of the variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. One way to evaluate the model's overall relevance is via the ANOVA statistics. The estimated parameters in the model are not zero, as the F-statistic for the model is 5.66, which is more than 0. This suggests that manufacturing businesses listed at the Nairobi Securities Exchange, Kenya, are more likely to engage in earnings management when their CEOs are dual-role. A significance level of $P<0.05$ indicates that the impact is real.

According to the statistical analysis, the CEO duality calculated coefficient is substantially greater than zero (β=-0.464867, t=2.38, p-value= 0.024). At the 5% threshold of significance, the computed coefficient is significant because the P-value is less than 0.05. If CEO duality were to occur in this context, the calculated coefficient would indicate that management of earnings degrees would rise by 0.464867 units. There is a significant constant term because the p-value is smaller than 0.05. The regression model is as shown below

Earnings Management = -1.80143-0.464867 CEO Duality (CD)

The study therefore rejected the null hypothesis that CEO duality does not affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya and hence that there is an effect of CEO duality on earnings management. This implies that increase in CEO duality would results to increase in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Zhafarina (2017) studied the effect of having two chief executive officers on the earnings management of Indonesian publicly traded firms. The

research showed that many factors, including company size, industry, and earnings management, had a beneficial effect on CEO duality. The question of whether business reputation and CEO duality reduce stock return volatility was explored by Bravo (2016). There are noticeable impacts on financial markets from CEO duality, according to the results. Several non-financial firms listed on the Nairobi Stock Exchange (NSE) in Kenya were studied by Waweru, Memba, and Njeru (2016) to determine the relationship between chief executive officer duality and earnings management. The results showed that among non-financial enterprises listed in Kenya, there is a positive linear correlation between having a co-CEO and better profits management as evaluated by Tobin's Q.

4.5.3 Effect of Board diversity on Earnings management

The study sought to determine the effect of board diversity on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The third null hypothesis denoted, **H_{o3}:** There is no statistical link between board size and earnings management in firms listed on the Nairobi Stock Exchange. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Table 13.

Table 13: Regression Fixed Effect of Board diversity on Earnings management

Fixed-effects (within) regression		Number of obs =	40
Group variable: FIRMID		Number of groups =	8
R-sq: Obs per group: within = 0.1575 min = 5 between = 0.4853 avg = 5 overall = 0.3504 max = 5			
		F(1,31) =	5.79
corr(u_i, Xb) = 0.2161		Prob > chi2 =	0.0222

EM	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
BD	0.07876	0.032721	2.41	0.022	0.01255	0.14503
_cons	0.058559	0.040562	1.44	0.159	-0.02417	0.14128

Source: Research Data (2024)

The findings from the fixed effect model showed that among manufacturing businesses listed at the Nairobi Securities Exchange, Kenya, board diversity explained 35.04% (Overall R square=0.3504) of the variance in earnings management. The ANOVA statistics assess the

model's overall significance. Since the model's F-statistic is 5.79, which is more than 0, we may conclude that the estimated parameters are not zero. The premise here is that industrial companies listed on the Nairobi Securities Exchange in Kenya would benefit from a more diverse board when it comes to earnings management. At $P<0.05$, this impact is considered significant.

At $\beta=0.07876$, $t=2.41$, and p-value=0.022, the predicted coefficient of board diversity is noticeably non-zero. Being less than 0.05, the computed coefficient is statistically significant at the 5% level of significance. An increase of one unit in board diversity would cause profits management levels to rise by 0.07876 units, according to the predicted coefficient of board diversity in this case. Since the constant's p-value is less than 0.05, we may conclude that it is statistically significant. The regression model is as shown below

Earnings management =0.058559+0.07876Board Diversity (BD)

The study therefore rejected the third null hypothesis that board diversity does not affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya and thus that there is an effect of board diversity on earnings management. This implies that increase in board diversity would results to increase in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Outcomes are in line with those of Waweru (2018), who aimed to find out how non-financial companies listed on the Nairobi Securities Exchange (NSE) fared in the market after implementing a more diverse board. Board diversity significantly improved company performance in the marketplace as assessed by Tobin's Q for non-financial businesses listed in Kenya, according to the data. Islam (2019); Bagieńska (2016); Ianniello (2020); Mandal and Goswami (2018)

4.5.4 Effect of Board size on Earnings management

The study sought to determine the effect of Board size on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The fourth null hypothesis denoted, **H_{04}:** There is no statistical relationship between board diversity and earnings management in firms listed on the Nairobi Stock Exchange. Having gone by the fixed effect model basing on the Hausman test, the results of the fixed effect model are presented in Table 14.

Table 14: Regression Fixed Effect of Board size on Earnings management

Fixed-effects (within) regression Number of obs = 40 Group variable: FIRMID
Number of groups = 8

R-sq: Obs per group: within = 0.1126 min = 5 between = 0.0182 avg = 5 overall = 0.0123
max = 5

F(1,31) = 3.93
corr(u_i, Xb) = 0.1435 Prob > chi2 = 0.0562

EM	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
BS	0.205282	0.103504	1.98	0.056	-0.00581	0.41637
_cons	-1.7754	0.463195	-3.83	0.001	-2.72009	-0.8307

Source: Research Data (2024)

The result obtained from fixed effect model indicated that board size accounted for 1.23% (Overall R square=0.0123) of the variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The predicted coefficients in the equation are not zero, as the F-statistic for the model is 3.93, which is more than 0. The results show that manufacturing companies listed on the Nairobi Securities Exchange in Kenya are affected by board size when it comes to earnings management. But with a p-value of less than 0.05 (P=0.056), the impact is not significant.

There is a significant difference between zero and the projected coefficient of board size (β=0.205282, t= 1.98, p-value= 0.056). The computed coefficient is not significant at the 5% level of significance, since the P-value is bigger than 0.05. It seems that the levels of profits management would rise by 0.205282 units for every unit increase in board size, according to the predicted coefficient of board size. The regression model is as shown below

Earnings management= -1.7754+0.205282 Board Size (BS)

The study therefore fails to reject the null hypothesis that board size has no significant effect on earnings management of listed manufacturing companies in NSE and thus that there is no significant effect of board size on earnings management. This implies that increase in board size would results to increase in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya though not significantly. There was no statistically significant

correlation between the number of board members and the dependent variables of Corporate Earnings management, according to El Moslemany and Etab (2017). According to Matope and Vaye (2022), industrial businesses' earnings management are unaffected by board diversity. Results showed a negative association between board size and earnings management of industrial enterprises situated in Jordan, according to Hazaima, Low, and Allen (2017), who also found a statistical deterioration.

At the 5% level of significance, Nwadialor and Nweze (2020) found that board size significantly affects businesses' performance (ROE). This leads the researchers to believe that larger boards have been associated with better company success over the long run. The size of a company's board of directors affects its performance at a 5% level of significance, according to research by Alhassan and Islam (2019).

4.6 Multiple Linear Regression

In order to test the hypothesis about the relationship between the independent and dependent variables, regression analysis was used. Determining the relative importance of each independent variable in influencing the dependent variables is the primary goal of regression analysis. If you want to know how much of an impact each independent variable has on your dependent variable, you should utilize regression analysis.

4.6.1 Model Summary

An important purpose of a model summary is to display the extent to which changes in the independent variable may account for variations in the dependent variable. We utilized the model summary to see how much variation in earnings management can be explained by changes in board size, diversity, independence of the board, and CEO duality. This regression used a block-entry format for the four independent variables. The results of the model summaries for the fixed effect and random effect models are shown in Table 4.15 below.

Table 15: Model Summary Fixed Effect of Board characteristics

Fixed-effects (within) regression	Number of obs =	40
Group variable: FIRMID	Number of groups =	8
R-sq:	Obs per group:	

within = 0.3483			min =	5
between = 0.4365			avg =	5
overall = 0.4032			max =	5
corr(u_i, Xb) =	0	(assumed)	F(4,28)=	19.54
			Prob > F=	0.0006

Source: Research Data (2024)

Based on the amount of data per group, the study demonstrates that the panels were wellbalanced for this multivariate analysis. This research took into account eight categories of entities, with a grand total of forty observations, suggesting that the panels were quite balanced. Each group had an average of 5, a minimum of 5, and a maximum of 5 occurrences. The result obtained from fixed effect model indicated that the board characteristics accounted for 40.32% (Overall R square=0.4032) of the variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. A model F-statistic of 19.54 indicates that the predicted parameters are not zero, as this value is bigger than zero. This implies that four board characteristics have an effect on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. This effect is significant (P=0.0006).

4.6.2 Regression Coefficient

Coefficients of regression illustrate the connection between a predictor variable and the answer; they are estimations of the unknown population characteristics. The coefficients in linear regression are calculated by multiplying the values of the predictors by those values. Together, regression analysis's p-values and coefficients reveal the nature and statistical significance of the model's associations. Coefficients illustrate the mathematical connection between earnings management and each independent variable, which are board features. You can tell whether these associations are statistically significant by looking at the p-values of the coefficients. Table 16 displays the findings.

Table 16: Regression Coefficient

Earnings Management	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
Board Independence	0.405377	0.146845	2.76	0.006	0.117567	0.693187

CEO Duality	-0.334582	0.153474	-2.18	0.029	-0.633779	0.035384
Board Diversity	0.11397	0.043281	2.63	0.014	0.025313	0.202627
Board Size	0.163917	0.091385	1.79	0.073	-0.01519	0.343028
_cons	-2.37335	0.847544	-2.80	0.005	-4.03451	-0.71219

Source: Research Data (2024)

The study regression model as obtained from table above is as shown below.

$Y=-2.37335+0.405377X_1-0.334582\ X_2+0.11397\ X_3+0.163917\ X_4$

Where:

Y = Earnings management

X_1= Board independence

X_2= CEO duality

X_3=Board diversity

X_4= Board size

As shown in Table 4.15, in the absence of four board characteristics constructs, earnings management of listed manufacturing firms will be -2.37335 at 0.05 significance level. A unit increase in board independence across time and among listed manufacturing firms at NSE would result in a significant increase of 0.405377 units in earnings management. A unit increase in CEO duality across time and among listed manufacturing firms at NSE in Kenya would result to significant decrease of 0.334582 units in earnings management. A unit increase in board diversity across time and among listed manufacturing firms at NSE in Kenya would result in a significant increase of 0.11397 units in earnings management. A unit increase in board size across time and among listed manufacturing firms at NSE in Kenya would result in insignificant increase of 0.163917 units in earnings management.

4.7 Discussion of the Findings

1. **$H0_1$. There is no statistical relationship between board independence and earnings management in firms listed on the Nairobi Stock Exchange**

From the findings, board independence had a regression co-efficient (β_1) of 0.405377, p=0.006 implying that when CEO duality, board diversity and board size are controlled, a unit increase in board independence across time and among listed manufacturing firms at NSE would result

in a significant increase of 0.405377 units in earnings management. Since the t value is greater than 1.96 and P value is less than 0, the first null hypothesis was rejected as board independence does significantly affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya.

According to agency theory, a company's board of directors should watch over management to make sure they're following shareholder interests by coordinating their goals with those of the company's owners. From this, we may deduce that independent directors are more equipped to oversee the company than their executive counterparts. According to the notion, a more autonomous board is better able to handle the agency conflict that arises when shareholders and management work together, which in turn improves the firm's performance. Assuming the right circumstances are in place, the stewardship hypothesis postulates that individuals have an innate drive to do good. Managers' goals should coincide with those of shareholders and other stakeholders, according to stewardship theory. Leadership, strategy development, and guiding management towards organizational progress and competitive advantage are consequently responsibilities of the board of directors in this context. This suggests that the intimate knowledge that boards get by having more executive members would make them more effective in this capacity.

The results of this research corroborate those of Minton et al. (2010), who also discovered a correlation between an independent board and better company success. Additionally, Mahrous (2014) found that ROA, a metric of financial success, correlates positively with board independence, as measured by the percentage of nonexecutive directors. Additionally, the results are in line with other research that has shown a favorable correlation between independent boards and financial success (Victor et al., 2014; Waithaka, et al., 2014). Firm performance is inversely related to the percentage of independent directors, according to Fuzi et al. (2016). They went on to say that even if these firms had the most independent directors, it didn't mean their performance would improve.

The results corroborate those of Anese (2018), who found that the explanatory variables (IAS 1, 16, 18, and 23) examined in this study had a positive effect on the earnings management of companies in Nigeria's food and beverage manufacturing sector. This is especially true when it comes to the board independence requirements. Board independence on financial policy was shown to be positively associated with business performance, sales growth, investment policy, financial liquidity, research and advancement, and board independence on research and

development (Musyoka, 2017). In addition, 63% of the variance in business performance was explained by these board features. Marime (2017) examined the relationship between the value of registered insurance businesses in Kenya and the independence of their boards. According to the results, a company's reputation and worth are positively and significantly impacted by board independence.

But in their 2019 study, Wasara and Ganda looked at how JSE-listed mining firms' board independence correlated with their company profits management. Board independence and return on investment were shown to be negatively correlated.

2. $H0_2$. There is no statistical association between CEO duality and earnings management in firms listed on the Nairobi Stock Exchange

The study established that CEO duality had a regression co-efficient (β_2) of -0.334582, p=0.029 implying that when board diversity, board independence and board size are controlled, a unit increase in CEO duality across time and among listed manufacturing firms at NSE in Kenya would result to significant decrease of 0.334582 units in earnings management. The t value is greater than 1.96 and P value is less than 0, the second null hypothesis was rejected as CEO duality does significantly affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya.

The theoretical basis for a relationship between CEO duality and company performance is quite robust, as noted by Bhasker et al. (2019). The agency theory and the stewardship theory present opposing viewpoints on the question of whether or not the chairman and the chief executive officer should share authority. (Habbash, 2019). Proponents of the agency theory argue that separating the two roles is crucial for monitoring the efficacy of the board over management because it provides cross checking evidence against the chance of overambitious plans by the CEO. When the same person is in charge of both departments, they are more likely to make decisions that benefit themselves at the expense of the business. These opinions favor a structure where the roles of governor and CEO are held by different people to facilitate more effective board oversight (Asogwa et al., 2019).

The effect of having a co-CEO on the value of non-financial companies listed on the UK FTSE was studied by Hassanein, Zalata, and Hussainey (2019). According to the results, investors placed a higher value on companies with two chief executive officers, regardless of how well

or poorly they performed. Additionally, the results go counter to what Waweru (2018) found, which found a strong correlation between CEO dualism and market success. According to Bravo's (2016) research, having a co-CEO effect on the capital market and investor trust is a big deal. Bozzolan, Trombetta, and Beretta (2009) shown that CEO duality improves accuracy and reduces dispersion of analyst prediction, although the study's results contradict this.

Nonetheless, other prior research does not corroborate the results. For example, the results corroborate those of Ng'ang'a (2015), who looked at how different board traits affected NSElisted institutions. The research found no substantial influence of board features, such as CEO duality, on investors' trust. The results of this study are corroborated by another research that looked at the effect of board features and CEO duality on the stock returns of NSE-listed companies (Wambugu and Essajee, 2016). The results showed that being a co-CEO did not have a major impact on stock returns.

3. $H0_3$. There is no statistical relationship between board diversity and earnings management in firms listed on the Nairobi Stock Exchange

From the findings, board diversity had a regression co-efficient (β_3) of 0.11397, p=0.014 implying that when board independence, CEO duality and board size are controlled, a unit increase in board diversity across time and among listed manufacturing firms at NSE in Kenya would result in a significant increase of 0.11397 units in earnings management. The t value is greater than 1.96 and P value is less than 0, therefore the third null hypothesis was rejected as board diversity does significantly affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya.

The Resource Dependence Theory therefore, advocated for diversity of boards since they can lead to broader corporate networks and improve financial performance (Waddock& Groves, 1997). Therefore, the presence of well diversified corporate boards in terms ofage, gender, education, nationality and expertise plays an important role in enhancing board effectiveness and financial performance. This is mainly because diversified corporate boards are viewed as strategic resources that provide a strategic linkage to different external resources which will in turn enhance financial performance (Ingley& Vander Walt, 2011). Similarly, the study findings agree with the Stakeholder Theory. The theory postulates the need to take into consideration the interests of other constituents in corporate decision making (Freeman, 1984). For this reason, the theory advocated for a well-diversified corporate board that accommodates and

facilitates the alignment of interests of each constituent so as to create value to the firm (John & Senbet, 2018). The Johannesburg Securities Exchange's market value was positively affected by a diverse board, according to resource dependency theory.

The outcomes are corroborated by Akpan and Amran (2014), who found that a company's sales were negatively correlated with the presence of a woman on the board. Appointing women to directorships was just public relations, according to the research, as their share was too little to have any real effect on a company's performance. Board diversity positively and significantly affected business worth, according to Ntim (2015). The study placed more emphasis on ethnic diversity than gender diversity due to the considerable non-linear relationship between board diversity and market valuation. There was no effect on Nigerian banks from gender diversity on boards, independent non-executive board members, or chief executive officers, according to research by Abu, Okpeh, and Okpe (2016). According to research by Temile, Jatmiko, and Hidayat (2018), companies listed on the Nigerian Stock Exchange do better financially when there are more women on the board. Accordingly, the presence or absence of a female chief executive officer was irrelevant, while the presence of a female chief financial officer was significant. According to Wachudi and Mboya (2012), commercial banks' performance was unaffected by gender diversity. A statistically significant and negative association on PER was established by Letting, Wasike, Kinuu, Murgur, Ongeti, and Aosa (2012) for both board education and board women. The ROE and DY were greatly affected by the number of women on the board and the specialty of the board. All companies listed on the Nairobi Securities Exchange had their dividend yield, price earnings, and return on assets (ROA) examined in this research.

On the other hand, it is worth noting that gender diversity was found to have a significant relationship with the measures of financial performance. These findings agree with Salim (2011) whose study found a positive relationship between gender diversity and financial performance measured by ROA and Tobin's Q. Similarly, the study results correspond with Wetukha (2013) whose study found a negative relationship between gender diversity and financial performance measured by ROE. However, the study findings conflict with Horvath and Spirollari (2012) as their study found gender diversity to have no significant effect on financial performance.

4. **$H0_4$. There is no statistical link between board size and earnings management in firms listed on the Nairobi Stock Exchange.**

Lastly, the results revealed that board size had a regression co-efficient (β_4) of 0.163917, p=0.073 implying that when board independence, CEO duality and board diversity are controlled, a unit increase in board size across time and among listed manufacturing firms at NSE in Kenya would result in insignificant increase of 0.163917 units in earnings management.

The t value is less than 1.96 and P value is greater than 0, therefore the fourth null hypothesis was not rejected as board size does not significantly affect earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya.

Proponents of agency theory argue that board effectiveness is influenced by various factors, including the size of the board (Jensen, 1993). It can be argued that a larger board enhances the oversight function, leading to potential effects on company performance. A larger board is believed to facilitate more active monitoring of management, as it involves a greater number of members. From the perspectives of the resource-based view and the resource dependency theory, larger boards benefit from a diverse range of human expertise and experience, which enhances the quality of board decisions and ultimately increases the company's value.

The influence of board size on financial reporting and company performance is a complex matter, with different perspectives and considerations. The optimal board size is still subject to ongoing discussion and further research. The quality of financial records may be significantly affected by the number of directors. The debate between small and large board sizes, and how each impacts a company's financial reporting, has been ongoing for some time. Large boards, according to advocates of the agency theory, are disorganized and unable to make a timely decision because they are too crowded to hear the opinions of all of their members. Using data from 2011-2015 and a sample of 20 Bahraini listed companies, Alareeni (2018) found a negative correlation between EM and board size, suggesting that larger boards provide more effective oversight and reduce managers' incentives to manipulate earnings. According to Ebrahim (2017), bigger boards tend to have smaller spending budgets. As a board grows larger, it tends to become more symbolic and shirk its surveillance and control responsibilities, which leads to agency problems (director free riding). (Beiner et al., 2014). Large boards are inefficient due to information overload, sluggish decision-making, and free-riding directors. (Lipton & Lorsch, 1992). When managing a big board, CEOs are more likely to use sophisticated tactics like forming alliances and dividing and conquering to get their way. (Alexander et al., 1993). This suggests that smaller boards may be better able to monitor

unethical managerial behavior than their bigger counterparts. A favorable and statistically significant correlation between board size and EM is reported by Türegün (2018), Kao and Chen (2014), Rahman et al. (2016), and Jaggi and Leung (2017). Ferris and Liao (2019), using data from 51,147 firms across 46 countries and one year of data per firm, discovered no correlation between board size and EM. No correlation was discovered between companies traded on the Tunisian Stock Exchange (Chouaibi, Harres, and Brahim 2018).

There may be less opportunity for opportunistic reporting if boards are bigger, according to Gao et al. (2019). A diversified board of directors may have positive effects, as Mohd-Sanusi et al. (2020) found that bigger boards were connected with higher profits quality than smaller firms. According to Zhuang et al. (2020), better monitoring and supervision may be achieved with bigger boards because of the different knowledge and viewpoints they provide. Boards with more members may have trouble coordinating and keeping tabs on the company because of the negative correlation between board size and profits quality that Ertugrul and Ince (2020) found in their study of Latin American companies' financial data.

In their study of Chinese companies, Xu et al. (2019) found that larger boards were more likely to engage in profits management. There would be less room for financial data manipulation with bigger boards, they said, because of better monitoring and oversight. Boards that are bigger in comparison to the size of the firm may enhance corporate governance standards, which in turn can lead to better quality profits, according to Wu and Li (2020). Board size may have a different effect on profits quality in Chinese companies and non-financial enterprises listed on the NSE due to cultural and institutional differences. The importance of board size and financial reporting standards may vary between the NSE and Chinese markets because to differences in corporate governance principles, regulatory frameworks, and business practices.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of major findings of the study, the conclusions, and recommendations. The conclusion and recommendation made are geared towards addressing the study objectives. Finally, it suggests further research areas

5.2 Summary of the Findings

In this section, the study presents summary of findings based on the specific objectives of the study. The general objective of this study was to examine the effect of board characteristics on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. From this overall objective, the specific objectives were to determine effect of CEO duality, CEO duality, board diversity and board size on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The data for the findings of this study was collected from secondary sources from CMA, NSE and individual firm's websites. Financial ratio was used to measure study variables. Multiple regressions for a univariate analysis were conducted after the data converted to their natural logs to deal with the problem of large numbers and eliminate heteroscedasticity. Stationarity of the data was checked; where unit root test was done using Im, Pesaran and Shin (IPS). The reason for having data stationary was to obtain a meaningful sample mean, variance which would show future behavior if series was stationary.

Hausman test was done and fixed effects model was adopted. Linear regression for each variable was undertaken then significant variables were retained and used to test the combined effect of independent variables. This was done with aid of STATA version 15.00. The major findings are as follows:

5.2.1 Influence of Board independence on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya

The first objective of the study was to determine the Influence of board independence on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya.

Board independence was measured using ratio of independent directors to the total directors. The mean ratio of board independence was found to be 0.65 (65%), with a standard deviation of 0.114(11.4%). It ranged from 0.412 (41.2%) to 0.841 (84.1%). These figures indicate that, on average, firms had above average independent boards.

Panel data Pearson correlation results show a strong significant positive relationship between board independence and earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya (r=0.3616, P=0.000). Fixed Influence simple regression analysis

indicated that board independence has significant positive Influence on earnings management of listed manufacturing firms as it accounts for 13.07% variation. Fixed Influence multiple regression analysis revealed that when other variables are controlled in the model, a unit change in board independence would results to a significant change in earnings management by 0.405 units in the same direction.

5.2.2 Influence CEO duality on Earnings management of Manufacturing Firms Listed at Nairobi Securities Exchange, Kenya

The second objective of the study was to establish the Influence of CEO duality on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Board diversity was measured using ratio of female directors to male directors. CEO duality was measured using ratio of CEO duality to non-CEO duality. The mean ratio of CEO duality was reported as 0.172 (17.2%), with a standard deviation 0.0813 (8.13%). It ranged from 0.102 (10.2%) to 0.331 (33.1%). This indicates that, on average, a relatively small fraction of firms employed a single person serving as both CEO and chairperson.

Panel data Pearson correlation results revealed a moderate significant negative relationship between CEO duality and earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya (r=-0.4826, P=0.0016). Fixed Influence linear regression analysis indicated that CEO duality significantly accounts for 23.30% variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Fixed Influence multiple regression analysis revealed that when other variables are controlled in the model, a unit change in CEO duality would results to a significant change in earnings management by 0.335 units in the opposite direction.

5.2.3 Effect of Board diversity on Earnings management of Manufacturing Firms Listed at Nairobi Securities Exchange, Kenya

The third objective of the study was to establish how board diversity effects earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Board diversity was measured using ratio of female directors to male directors. The mean ratio of board diversity was determined to be 0.333 (33.3%), with a standard deviation of 0.101 (10.1%). Notably, the minimum and maximum ratios of board diversity were 0.143 and 0.534, respectively, revealing an insignificant disparity in gender and racial diversity among firms.

Panel data Pearson correlation results revealed a moderate and significant positive relationship between board diversity and earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya (r=0.5658, P=0.0001). Fixed effect linear regression analysis revealed that board diversity significantly accounts for 35.04% variation in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Fixed effect multiple regression analysis revealed that when other variables are controlled in the model, a unit change in board diversity would results to significant change in earnings management by 0.114 units in the same direction.

5.2.4 Effect of Board size on Earnings management of Manufacturing Firms Listed at Nairobi Securities Exchange, Kenya

The fourth objective of the study was to establish the effect of board size on earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Board Size was measured using ratio of Total number of board directors to company size as measured by total assets. The mean ratio of board size was reported as 0.131, with a standard deviation of 0.205 The minimum and maximum board size ratios were 0.097 and 0.189 respectively. Interpreting these findings suggests that there is variability in board sizes across companies, with the average board size being approximately 13.1% of the company's total assets. The standard deviation of 0.205 indicates a considerable degree of dispersion around this mean value, implying that some companies have significantly larger or smaller boards compared to the average.

Panel data Pearson correlation results indicated an insignificant positive relationship between board size and earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya (r=0.1107, P=0.4965). Fixed effect linear regression analysis indicated that board size insignificantly accounts for 1.23% variance in earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. Fixed effect multiple regression analysis revealed that when other variables are controlled in the model, a unit change in board size would results to insignificant change in earnings management by 0.164 units in the same direction.

5.3 Conclusions of the Study

Based on the empirical evidence, a number of logical conclusions can be made as follows and presented in terms of study objectives:

5.3.1 Board Independence and Earning Management

The study concluded that board independence has significant positive effect on earnings management. An increase in board independence would results to significant increase in earnings management. The relatively high level of board independence indicates a positive governance feature within manufacturing firms, contributing to effective oversight and control over management actions. This finding aligns with established literature emphasizing the crucial role of independent directors in enhancing financial reporting quality and reducing the likelihood of earnings manipulation. Thus, fostering and maintaining board independence should be a priority for firms seeking to uphold governance standards and promote investor trust. The first null hypothesis was rejected.

5.3.2 CEO Duality and Earning Management

The study concluded that CEO duality has significant negative effect on earnings management. CEO duality would result to significant decrease in earnings management. The second null hypothesis was not supported. The prevalence of CEO duality raises concerns regarding potential conflicts of interest and challenges in board oversight. Consolidating the roles of CEO and board chairperson under the same individual may compromise the board's ability to provide independent scrutiny and governance, potentially leading to suboptimal decision-making and accountability gaps. Therefore, efforts to separate these roles and establish clear lines of oversight and accountability should be considered to strengthen governance mechanisms and mitigate the risk of self-interested decision-making by executives.

5.3.3 Board Diversity and Earning Management

The study concluded that board diversity has significant positive effect on earnings management. An increase in board diversity in terms of gender, expertise would result to significant increase in earnings management. Therefore, board diversity is a significant predicator of earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The third null hypothesis was not supported.

5.2.4 Board Size and Earning Management

The study concluded that board size has insignificant positive effect on earnings management as indicated by multiple linear regressions. An increase in board size would results to insignificant increase in earnings management. Hence, Board size is an insignificant predicator of earnings management of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The fourth null hypothesis was supported. While larger boards may offer a broader range of expertise, they also face challenges such as reduced spending budgets and potential director free riding. As such, optimizing board size to strike a balance between diversity and efficiency is essential for firms to effectively fulfil their oversight responsibilities and navigate governance challenges

5.4 Recommendations of the Study

The following recommendations have been made based on the study conclusions as explained below:

To further strengthen governance practices, manufacturing firms should prioritize the appointment of independent directors to their boards. Ensuring a sufficient proportion of independent voices can enhance oversight effectiveness, promote accountability, and reduce the potential for conflicts of interest. Boards should regularly evaluate their composition and governance structures to maintain a balance of perspectives and independence.

Given the concerns associated with CEO duality, manufacturing firms should consider separating the roles of CEO and board chairperson to enhance governance effectiveness. Establishing separate individuals for these positions can facilitate independent oversight, improve decision-making processes, and foster a culture of accountability. Boards should review their governance structures and consider adopting best practices that promote clear delineation of roles and responsibilities.

While larger boards offer diverse perspectives, manufacturing firms should aim to optimize board size to ensure efficiency and effectiveness in decision-making. Assessing the optimal number of directors based on the company's size, complexity, and strategic objectives can help mitigate challenges associated with larger boards, such as reduced spending budgets and potential director free riding. Boards should periodically review their composition and consider adjustments to optimize governance effectiveness.

To enhance decision-making processes and promote inclusivity, manufacturing firms should prioritize efforts to increase board diversity. This includes actively seeking out directors from diverse backgrounds, including gender, ethnicity, and expertise. Fostering a culture of diversity and inclusion at the board level can lead to better governance outcomes, improved financial performance, and enhanced stakeholder trust. Boards should implement diversity initiatives and monitor progress towards achieving greater representation.

5.5 Suggestion for Further Studies

From the limitations of the study, the following are suggestion for further studies. The study focused on four board characteristics which include CEO duality, board diversity, board independence and board size. Further studies can focus on other board characteristics such as board expertise, board diligence.

The current study did not control or moderate other variables that may have impact on the relationship between board characteristics and earnings managements. Therefore, future studies should consider firm size as moderating variable and macro-economic indicators such as interest rate, foreign exchange and taxation as control variables which may have impact on earnings management and board characteristics.

Lastly, the study only focused on listed manufacturing firms in Kenya and thus leaving other firms such as financial firms and those firms that are not listed in the NSE. Therefore, further study should focus on non-manufacturing firms.

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APPENDIX I: DATA COLLECTION SCHEDULE

FIRM NAME…….

Year	**2019**	**2020**	**2021**	**2022**	**2023**
Total No. of directors					
Non-executive directors					
Executives' directors					
No. of male board					
No. of female board					
CEO duality					
Non-CEO Duality					
Total Assets					
Accruals					

APPENDIX II: ERC

Mount Kenya University

REF: **MKU/ISERC/3416** Date: 10 January 2024

TO: **CLIFORD KIPLANGAT KIPTARUS**

REG: **MBA/2020/67506**

Dear Sir/Madam,

RE: INFLUENCE OF BOARD CHARACTERISTICS ON EARNINGS MANAGEMENT IN MANUFACTURING FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2460.** The approval period is **10/01/2024 - 09/01/2025.**

This approval is subject to compliance with the following requirements;

i. Only approved documents including informed consents, study instruments, MTA will be used
ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

APPENDIX III: INTRODUCTION LETTER FROM MKU

Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MBA/2020/67506

2nd February 2024

National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA

Dear Sir/Madam,

RE: CLIFORD KIPLANGAT KIPTARUS – REGISTRATION NO. MBA/2020/67506

The purpose of this letter is to introduce the above named student who is pursuing **Master of Business Administration** in the department of **Accounting and Finance** in the school of **Business and Economics**

The title of the research is **"Influence of Board Characteristics on Earnings Management in Manufacturing Firms Listed in The Nairobi Securities Exchange."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **February 2024, and April 2024.**

Any assistance accorded to the student will be highly appreciated.

Thank you.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director,
Graduate Studies

Dr. Samuel M. Karenga, Ph.D.
Director, Graduate Studies
Enc.

Main Campus, General Kago Road, P.O. Box 342-01000 Thika. Tel: +254 67 2820 000,
Cell: +254 720 790 796, 0709 153 000
Email:info@mku.ac.ke. Web: www.mku.ac.ke

APPENDIX IV: RESEARCH LICENSE FROM NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **313181**

Date of Issue: **08/February/2024**

RESEARCH LICENSE

This is to Certify that Mr.. CLIFORD KIPLANGAT KIPTARUS of , has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: INFLUENCE OF BOARD CHARACTERISTICS ON EARNING MANAGEMENT IN MANUFACTURING FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE for the period ending : 08/February/2025.

License No: **NACOSTI/P/24/32983**

313181

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

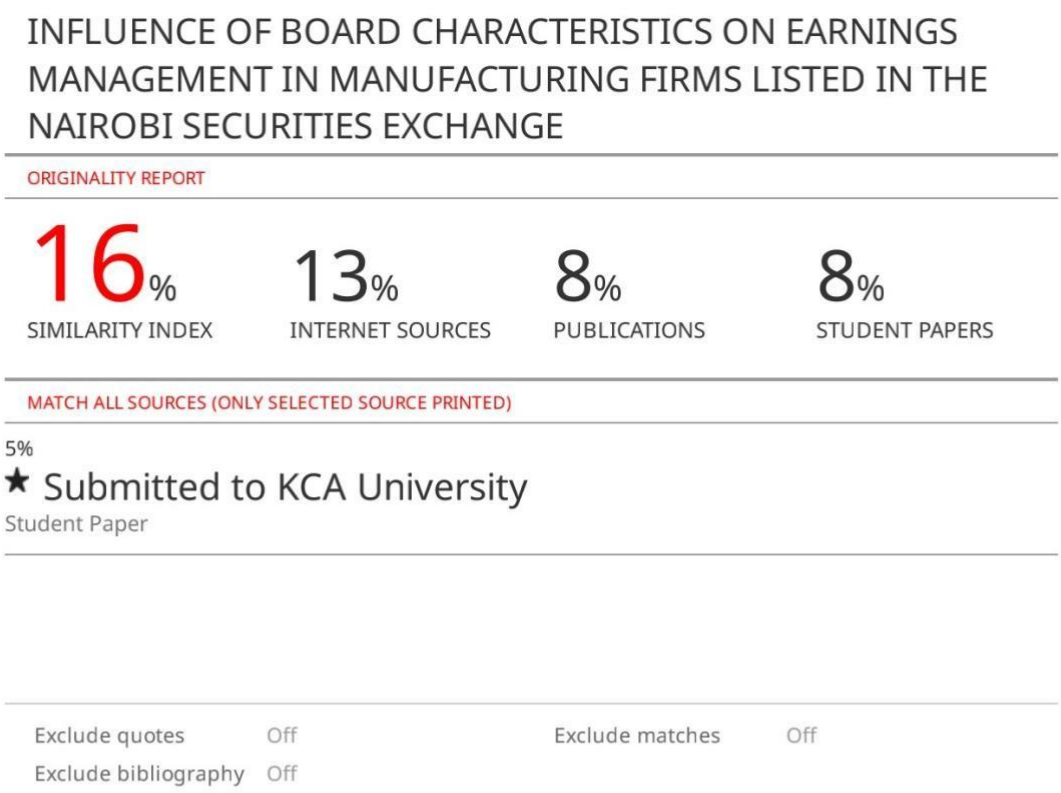
See overleaf for conditions

APPENDIX V: SIMILARITY INDEX REPORT

INFLUENCE OF BOARD CHARACTERISTICS ON EARNINGS MANAGEMENT IN MANUFACTURING FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

by Clifford Kiptarus

Submission date: 13-Jun-2024 10:51AM (UTC+0300)
Submission ID: 2394659293
File name: CLIFFORD_FINDINGS_2024.06.05P_1.docx (1.51M)
Word count: 27323
Character count: 160737


INFLUENCE OF BOARD CHARACTERISTICS ON EARNINGS MANAGEMENT IN MANUFACTURING FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

ORIGINALITY REPORT

16% SIMILARITY INDEX

13% INTERNET SOURCES

8% PUBLICATIONS

8% STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

5%

★ Submitted to KCA University

Student Paper

Exclude quotes Off

Exclude bibliography Off

Exclude matches Off

Email to student

Dear Clifford,

You have been cleared to submit your final project by **30th October 2024**. In this regard, you are expected to submit the following;

i. A Softcopy of the thesis/project in both MS word and PDF using the attached template ii. A duly filled **Template** for submission of abstracts and publication(s). If the publications don't apply to you, just write N/A

iii. A separate approval and declaration page signed by the student and supervisor(s) in PDF

Notes

i. It is an academic **MALPRACTICE** to submit work without the approval of your supervisor(s)

ii. All PhD students **MUST** publish or show proof of acceptance of at least **TWO** research publications from their thesis work in **INDEXED** University recommended journals. A list of the recommended journals can be accessed using the link; https://cgsr.mku.ac.ke/list-of-peer-reviewed-index-journals/

Kind regards,

Directorate of Graduate Studies

Mount Kenya University

P. O Box 342 - 01000

THIKA.

Offices: Alumni Plaza 6th Floor