CORPORATE GOVERNANCE MECHANISMS, REGULATORY FRAMEWORK AND FINANCIAL PERFORMANCE OF PUBLICLY CROSS-LISTED COMPANIES AT EAST AFRICAN COMMUNITY REGION

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DECLARATION

I declare that this thesis is my original work and has not been presented in any other University for a degree or other award. No part of this thesis shall be reproduced without prior authority of the author and/or Kenyatta University.

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This research study is devoted to My Dad David Mweta Mbolo (late), My loving Mum Esther Malinda Mweta, My Father in Love Joseph Kamandi Nzula, My Mother-in Love Angelina Kamandi, my lovely wife Lenah Mutambu and to my children Raymond Mutambu, Adrianna Mutambu and Brayden Mutambu for the peace of mind, your prayers, commitment, and encouragement and for been a strong pillar throughout this journey.

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OPERATIONAL DEFINITION OF TERMS

Corporate governance mechanisms	These are set of controls through which authority can be exercised and controlled. The proxy is an internal and external control mechanism.
Cross-listed companies	These are companies trading equity shares in a secondary stock exchange other than a primary stock exchange
Corporate block holding	It is an allocation of shares to a company or organization that pools funds in financial instruments, tangible assets, and alternative investment avenues for the benefit of investors. The proxy is the equivalent of company stock subscribed by local companies.
Capital Market Authorities	It is the regulatory body mandated to oversee, develop and administer policies to facilitate listing of companies, trading of securities, protecting investments to create and instilling confidence in the market by creating safe investment avenues.
Executive director's remuneration	It is a package or payment of salaries, bonuses, fees and allowances paid for services provided. The proxy is the natural logarithms of the amount paid in terms of salaries, bonuses, and allowances.
Executive director's shareholding	It is an allocation of company shares to executive directors. The proxy is the equivalent of stock purchased by managing directors or chief executive officer to the total company shares.
Firm's size	It is the magnitude, dimension or how big companies operations are proxied by natural logarithms of total asset

Financial performance	It is the measurement of operational results expressed in money terms where indicators are selected based on the organization. The proxies were ROA and TOBIN Q
Independent auditor	It is an independent person qualified as an accountant who is appointed by the company with the consent of the corporate directors and who is not related to the firm by any means.
Independent directors	These are corporate board of directors' members who don't participate in organization operations. The proxy is the independent director's number to the total members on the board.
Product market dominance	It is a rivalry between companies, goods, or services that exist within a specific market. The proxy is the companies' net sales to overall company net sales
Regulatory framework	It is a model that defines rules, guidelines and principles developed by policymakers that is used by people or organizations to initiate reforms and enact regulations to enforce adherence to law and ethical expectations in a logical and effective way. The proxy is the regulatory compliance index.
Regulatory compliance	It is an act of observing or conforming to a rule, such as a specification, policy, standard, or law expressed as an index number.
Return on assets	It's a measure of an entities ability to make a profit from its long-term investments (assets). Its proxy is the net profit to the total company's assets.

Return on equity	It a measure of an organization capacity to make a profit from shareholders investments (net assets). It calculated as a ratio of net income minus preferred shares value to the total ordinary investor’s ownership.
Tobin's Q	It is computed to indicate company's value by dividing market capitalization to the total value of assets.

LIST OF ABBREVIATIONS AND ACRONYMS

AAOIFI	-	Accounting and Auditing Organization for Islamic Financial Institutions
BCCI	-	Board of control for Cricket in India
BLUE	-	Best Linear Unbiased Estimator
CBK	-	Central Bank of Kenya
CMA	-	Capital Markets Authority in Kenya, Uganda, and Rwanda
CMSA	-	Capital Markets Securities Authority in Tanzania
CCG	-	Centre for Corporate Governance
CG	-	Corporate Governance
CDSC	-	Central Depository and Settlement Corporation
CGI	-	Corporate Governance Index
CMSA	-	Capital Market Securities Authority
CEO	-	Chief Executive Officer
CFOs	-	Chief Finance Officer
CLRM	-	Classical Linear Regression Model
CGPI	-	Corporate Governance Perception Index
DSE	-	Dar es Salaam Stock Exchange
EAC	-	East African Community
EPA	-	External Payment Arrears
EPS	-	Earnings per Share
EVA	-	Economic Value Added
ECG	-	External Corporate Governance
EBIT	-	Earnings before Interest and Taxes
FE	-	Fixed effects
FEM	-	Fixed effects model
GDP	-	Gross Domestic Product
GLS	-	Generalised Least Squares
GI	-	Governance Index
ICG	-	Internal Corporate Governance
JSE	-	Johannesburg Capital market
OLS	-	Ordinary Least Squares
LR	-	Likelihood ratio
MENASA	-	Middle East, North America, South East Asia

MFV	-	Market Fair Value
ID	-	Independent directors
NSE	-	Nairobi Capital market
NCGC	-	National Corporate Governance Committee
OECD	-	Organisation for Economic Co-operation and Development
PAT	-	Profit after tax
PMC	-	Product Market Competition
REM	-	Random Effect Model
ROE	-	Return on Equity
RC	-	Regulatory Compliance
OLS	-	Ordinary Least Square
RSE	-	Rwanda Stock Exchange
SMEs	-	Small and Medium Enterprises
SPSS	-	Statistical Package for Social Sciences
USE	-	Uganda Stock Exchange
WTO	-	World Trade Organizations

ABSTRACT

The mixed trend in financial performance has been a significant obstacle for publicly traded corporations, garnering the interest of academicians and financial analysts. The decrease has made a significant contribution to substantial financial losses and abrupt corporate collapses. Action taken to respond to corporate governance issues in the East African Community region includes implementing privatization policies and enhancing the role of capital markets regulators in safeguarding shareholders' investments. The main obstacle encountered by corporate board members and shareholders is to determine appropriate governance frameworks and the effect of different governance arrangements on financial performance. This research investigated the effect of corporate governance mechanisms on the financial performance of companies cross-listed in the East African Community region. The specific objectives were to establish the effect of independent directors, executive director's remuneration, executive director's shareholding, independent auditors, corporate block ownership and product market dominance on the financial performance among the companies cross-listed in the East African Community region. The study analyzed the influence of the regulatory compliance index on the corporate governance mechanisms and financial performance correlation. This was informed by the ideas of agency, stewardship, stakeholders, institutional and resource dependence theory. This study is grounded in the positivistic research philosophy. The study utilized an Explanatory non-experimental research design. A total of 9 companies out of 11 cross-listed were picked to form the sample size through purposive sampling. This study employed secondary panel data extracted from the integrated reports, audited financial statements, shareholder profiles and investor relations reports from 2013 to 2022. Diagnostic tests were performed to validate adherence to the principles of the classical linear regression model; autocorrelation was detected (p-value =0.000)<0.05), correlation coefficient for all variables was less than 0.85 and 0.1<VIF<10 confirming absence of multicollinearity, panel unit root test confirmed that all variables are stationary (p-value =0.000)<0.05) and Breusch–Pagan/Cook–Weisberg and White test revealed that error variance was heteroscedastic (p-value =0.000)<0.05). Data was analyzed with descriptive and inferential statistics. The data was presented using tables. The Whisman and McClelland (2005) moderation procedure was employed to investigate the effect of the regulatory framework. The Feasible Generalised Least Squares panel multiple regression analysis yielded significant evidence of a direct effect of independent directors, executive directors' remuneration, executive director's shareholding on both ROA and Tobin Q. Independent auditors demonstrated inverse relationship with ROA, while their effect on Tobin Q was not statistically significant. A significant and coherent relationship existed between the corporate block holding and ROA however there was no statistically significant effect of corporate block holding observed on Tobin Q. The study also discovered a statistically significant effect of the dominance of a product in the market on ROA. Nevertheless, there exists a statistically negligible inverse effect of the dominance of a product in the market on Tobin Q. The findings of this study documented that the regulatory framework plays a crucial role in influencing the correlation between executive directors' compensation, executive director's shareholding, independent auditors, product market dominance, and ROA. Nevertheless, the regulatory compliance index does not have a statistically significant effect on independent directors, corporate block holding, and ROA correlations. This study proposes as follows for policy; the capital market authorities, central banks, and insurance regulatory authorities should work together to develop, improve and administer the regulations and guidelines on board independence to bolster the significance of board autonomy, boost transparency, enhance decision-making, and protect shareholders' assets, CMA and ICPA should set clear and specific standards addressing the maximum number of contract renewals for audit firms to guarantee the autonomy of auditors and protect the investments of shareholders; policy makers should provide executive directors and other employees with the chance to own shares in the company through subscription, allowing them the privilege of owning shares at a pre-established price. For practice, this study portends that shareholders should create clear guidelines and synchronize remunerations for executive directors with those in other corporations to provide incentives and reduce conflicts of interest.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Economic integration has grown tremendously over the world with countries forming trading blocs to spearhead their growth and development (Irving, 2005). The East African Community is a collaboration of six independent nations including Tanzania, Uganda, Kenya, Rwanda, Burundi, and South Sudan (CFA Institute Research Foundation, 2022). It stands at a critical turning point, and it has a mandate to promote the company's growth, regulate, supervise, and open avenues for trading within the region (East African Community Report, 2016). The EAC capital markets have made commendable improvements over the years. This transformation has contributed to relatively high growth and increasing financial performance although not as expected. Increasing investor training, automation of trading, and regulations has stimulated interest in investment in the markets (East African Community Report, 2016).

The worldwide wave of privatization, increased reforms in the retirement authority, the increase in personal savings, increased takeovers, deregulations, and integration of capital markets, and evolving public company's operating environment has become more complicated for investors, owners, board members, shareholders, and other stakeholders increasing their expectations and analysis of company's performance (Becht, Bolton & Rosell, 2002). Financial performance is a critical element for every business and highly considered in financial management that has triggered serious attention from researchers, the community, and the managers of companies. Poor financial performances due to internal corruption and financial irregularities in private and public corporations across the world have largely contributed to corporate failures such as (CMC Motors, 2011; Mumias Sugar, 2015; Volkswagen, 2015;

Uchumi Supermarket, 2016; Dick Smith, 2016; Sports Direct, 2016; Carillion, 2018 and Wirecard, 2020 and others).

The global business environment has dramatically changed due to the financial challenges experienced globally from 2007-2009 with global companies pursuing emerging markets to expand and grow their businesses. The failure of Banco Espirito Santo Portugal-based commercial bank in 2014 due to financial irregularities and precarious financial situation; Wirecard in Germany in 2020 which was declared insolvent due to rampant accounting malpractices; Dick Smith in Australia whose share value reduced by 80% in 2016; closure and withdrawal of companies such as Target's, DIY US based company and Walmart another American retail giant was largely attributed to the unfriendly business environment, cultural differences, poor marketing strategy, poor timings, and high taxation which exposed weaknesses in corporate boards decision making which largely contributed to the companies downfall (Seale, 2020).

Declining financial performances largely contributed to poor performance in companies based in United Kingdom as a result of boards failure, inaccurate accounting, and excessive directors' remunerations sent shockwaves in the corporate world with at least one in every 213 companies declared insolvent in 2017, 16,027 companies failed in 2018 with 6.8% increase in underlying companies insolvency in 2019 to 17,196 which recorded the highest number of companies falling under liquidation since 2013. In January 2018, the failure of Carillion, which marked one of the biggest corporate collapses in the country for decades negatively affected many sectors in the UK due to its operational connections in many industries in the UK and abroad. The failure of other high-profile companies such as British steel in May 2019 and Thomas

Cook in September 2019 raised many queries on the reforms carried out in corporate governance (Mujih, 2020).

Claessens and Yurtoglu (2013) argued that during the financial stress in Russia, Asia, and Brazil in 1998, the behavior of companies greatly influenced economies, and missing functioning corporate governance destabilized financial operations globally. In United States and Europe financial scandals were largely experienced in 2002 with the failure of big and respected companies (Holmstrom & Kaplan, 2003). Poor corporate governance mechanisms in Malaysia in 1997/1998 were exposed by the financial challenges in Asian which contributed to listed companies reporting higher long-term debts and huge current liabilities (Claessens et al., 2000) leading to financial stress (Abdullah, 2006) and the failure of companies such as Perwaja Steel, Renong Berhad and KFC Holding (Haniffa & Hudaib, 2006).

Decreased financial performance, declining profits, and liquidity problems were resulting to corporate failures in companies within the East African Community such as the Euro Bank in 2003, Daima Bank in 2005, Kiwira and Meremeta mining company, Richmond Development Company (RDC), Dowans Electricity Company (DEC), EPA in Tanzania, and Trust Bank Uganda in 1999 which was largely attributed to inadequate control systems and poor corporate governance, internal trading among the directors and shareholders (Cheserek 2007 & Fulgence, 2014).

According to Capital Market Authority (CMA) Report (2018), at least eight firms such as Uchumi Supermarkets, Athi River Mining, and Mumias Sugar Company share prices significantly dropped below the par value risking investors' wealth. The decline in performance was largely attributed to liquidity and corporate governance challenges. In 2019, Kenol Kobil

was suspended from trading at NSE due to insider trading allegations. According to the corporate governance report (2019) released by CMA, 13% of listed cross-listed companies such as Uchumi supermarket, National Bank, Transcentury, and Kenya Airways recorded significant corporate governance issues related to fraud, lack of board supervision, non-disclosures, and lack of transparency.

The success of a firm doesn't solely depend on its efficiency, innovation, and quality of management. The consistency in poor financial performances trend reported more stable nations, emerging markets, and upcoming countries largely contributed to the adoption and reforms in corporate governance mechanisms to avert company failures and safeguard shareholders' interests (Tadesse, 2004). Adoption of effective corporate governance mechanisms, increased wave of regulations, increased costs and complexity of monitoring and managing businesses largely contribute to increasing owner's wealth by managers and prevent and control similar problems in the future (Tadesse, 2004).

1.1.1 Financial Performance

Njanja and Pellisier (2011) suggested that financial performance can be understood in relation to expected results and behavior. Laitinen (2002) defined financial performance as objects productivity for certain expected outcomes concerning a pre-set target. In this study financial performance was stated as the measurement of strategies, policies, and operational results expressed in money terms where indicators are selected based on the organization's circumstances.

According to Neely (2011), financial performance measures operational results against business objectives and, they are used as a tool for control, supervision, and motivation. The

most used performance measures which meet these three objectives include ROA and ROE. Studies carried out by (Mardiana, Purnamasari & Puji Endah, 2018; Nyakurukwa, 2022; Mishra & Mohanty, 2018) used ROA as a standalone factor to measure financial performance. Return on equity (ROE) was used by (Dzingai & Michael, 2017; Aik Leng, 2004) while other studies by (Yuan & McIver, 2011) used Tobin Q to measure financial performance.

According to Khrawish (2011), there are different ways of measuring financial performance grouped into three categories; traditional measures such as ROE and ROA and NIM, economic measures (EVA that's economic value added), expected yield on investment and risk adjusted return on capital) and market related measures which include P/E, shareholder returns, price to book value, and the swapping of credit default. Financial performance indicators uniquely used by different firms includes profitability, liquidity, utilization of financial structure, financial leverage or gearing ratio, and investment ratio (Philip, 2004). Petersen and Kumar (2010) in their study suggested that measures of financial performance also include: growth in sales, ROCE, ROS-return on sales and EPS- that's earnings per share.

Omondi and Muturi (2013) suggested that one measure of performance cannot effectively indicate all areas of the organization's financial performance. Using different measures helps to select better measurement of a company's financial performance (Adenkule & Sunday, 2010). Okiro (2014) and Ondigo (2016) used different measures to measure financial performance in their study. This study measured financial performance based on widely accepted indicators such as TOBIN Q & ROE-that's return on equity. These indicators of financial performance were also advocated by (Khanifah, Hardiningsih, Darmaryantiko, Iryantik & Udin, 2020; Palaniappan, 2017; Meilinda and Yulianto, 2020; Shingade, Rastogi, Bhimavarapu & Chirputkar, 2022) in their study.

1.1.1.1 Cross-Listed Companies Financial Performance Metrics

Table 1.1 represents the average ROA and TOBIN Q to depict financial performance trend of companies cross-listed from 2013 to 2022. It helps to determine consistent patterns in the returns on investment of capital (ROA) and market to book value ratio (Tobin's Q) of cross listed firms. Computing mean values for financial performance measures such as ROA and Tobin's Q offers an early glimpse into how companies' performance has evolved as to whether it has improved or worsened over time as far as profitability, efficiency and firms' market value are concerned. The statistics indicated that 2013 recorded the highest average return on assets followed by 2014 at 8.31% and 2015 at 8.22% with 2020 recording the lowest average return on assets of 3.67% followed by 2021 at 3.91% and 2022 at 4.45% respectively. On average TOBIN Q was highest in 2013 at 34.39% followed by 2014 at 32.830% and 2016 at 28.45% with 2018 recording the lowest value of TOBIN Q at 25.08% followed by 2021 at 26.17% and 2020 at 26.49%.

Table 1. 1 Returns on assets and TOBIN Q trend from 2013 to 2022.

Year (s)	Average ROA	TOBIN Q	Number of firms sampled
2013	9.37%	34.39%	9
2014	8.31%	32.83%	9
2015	8.22%	27.21%	9
2016	7.33%	28.45%	9
2017	6.34%	27.94%	9
2018	6.03%	25.08%	9
2019	5.52%	26.62%	9
2020	3.67%	26.49%	9
2021	3.91%	26.17%	9
2022	4.45%	26.74%	9

Source: (CMA & CMSA, 2023)

1.1.2 Corporate Governance Mechanisms

These are set of controls that involve rules, regulations, practices, or systems for a corporation used by stakeholders to monitor and control management decision-making in an organization, tackle problems, and to harmonize managers interest to different stakeholders (Kang, 2006). According to Cadbury (1992), CG mechanism is a framework that gives directors the ability to manage and oversee businesses, with board directors serving as a liaison between these businesses and stakeholders who have an interest in their success. Corporate governance mechanism is stipulated as a direct substitute or complement of traditional governance supervision and controls which is stronger in companies compared to other sectors (Prowse, 1997).

Keasey and Wright (1993) documented that CG mechanism is a framework laid down by organizations to ensure effective and efficient monitoring and control of company activities. Shleifer and Vishny (1997) reported that CG mechanisms are used by financiers to entities which guarantees them in getting their returns. Nambiro (2007) reported that CG mechanisms are used to harmonize the wish of the management to those of other stakeholders, mainly owners. In line with the Centre for Corporate Governance (CCG) (2007) this study defines CG mechanisms as acceptable frameworks, regulations, rules, guidelines, processes, and systems through which authority can be exercised and controlled to align management interests with those of stakeholders.

Internal CG mechanisms effect on financial performance has been widely investigated by researchers but the findings are inconclusive. Independent directors are a very critical component of firms' governance structure, because their primary role is to mitigate agency expenses that are inherent in managers, shareholders relation. This is in concord with the

agency theory which states that in any given company, the independent directors move around as forensic agents between the managers and the shareholders for oversight (Jensen and Meckling 1976). Contemporary research supports this line of thought, as research finds that cases show that higher percentage of independent directors lead to enhanced and fewer rates of acute corporate misstatement, and fraud (Pérez & Garcia, 2020). The concern for diversity among independent directors has followed a similar trend because broader representation in boardrooms is expected to enhance decision-making and creativity (Huang & Wang, 2021).

Zhou et al. (2018) and Dang et al. (2017) affirmed that independent directors inversely relate to financial performance while (Assenga et al., 2018; Khan et al., 2019; Dahya et al., 2016) reported that independent directors and financial performance do not relate while other studies articulate that independent directors contribute positively to the financial performance by offering their experience, expertise and skills to managers on how to create partnerships linkgaes (Kao et.al., 2019; Barka & Legendre, 2017).

The pay level received by the executive directors has emerged as another contentious issue in corporate governance, and theories such as the principal-agent theory claims that since performance structure based on pay incentives to top executive encourages them to act as agents of shareholders (Murphy 1999). However, according to Frydman and Saks (2021) in the recent literature, there are some deficiency ties for high remuneration especially when it leads to working on short-term objectives instead of strategic map.

There has been a growing attention to companies' transparency in remuneration policies because the various stakeholders have asked for better clarification on how compensation benchmarks reflect corporate revenues (Cohen et al., 2021). This argument should also support

the need to come up with sustainable remunerations structures that should be adequate to attract talent without diluting stakeholder and shareholder value. According to Rehman et al. (2021), increased director remuneration improves motivation which directly contributes to improved financial performance while (Sharmin et al., 2020) argued that higher pay doesn't stimulate increased firm's performance, unlikely it increases costs which in turn reduce shareholders returns.

Since executive shareholding explains a great deal about interest convergence, it is rather related to interest convergence concept. As the theories have it, large block holders lead to low agency costs because their self-interest is in tandem with that of the shareholders (Morck et al., 1988). New literature reviews provide evidence that argue that increased executive ownership is accompanied by increased firm performance, due to the executive's desire to act in the best interest of increasing shareholder value (Teng and Zhang, 2020). The practice of having minimum shareholding for executives has slowly emerged, which is a sign of the introduction of the culture of ownership within firms (Bebchuk, & Fried, 2020). Caha (2017) argued when executive directors own equity shares, there is high motivation to increase the financial success to benefit from profit distribution while Sani (2020) reported that increased executive directors' shareholding inversely affects financial performance because managers of firms can manipulate or smooth financial statements to have private benefits.

Studies carried out in developed and emerging economies have produced two opposing arguments relating to external corporate governance mechanisms and financial performance. Independent auditors are instrumental to corporate governance in the firm and their work is based on stakeholder theory. Their independence is crucial if the financial reporting is to be accurate and manage held responsible for their action (DeAngelo, 1981). The current literature

suggests that firms receiving high quality independent audit have reduced earnings manipulation, thus improving governance (Krishnan, 2020).

There is rising Regulatory measures surrounding auditor independence due to the new corporate failures evidencing the importance of stringent audit processes to safeguard investor's interests (PCAOB, 2021). Good external auditing improves investor's confidence which triggers them to invest in transparent and well-managed companies thus boosting the flow of funds to organizations (Hashim, 2021; Rahman, Meah & Chaudhory, 2019) although excessive auditing increases costs which reduces companies' profitability (Al-Ani & Mohammed, 2015).

Therefore, the analysis of the governance arrangements shows that within the scope of the concept of analyzing the abilities of the corporate block holding, this concept may be cloudy or ambiguous after all. It is for this reason that conceptual models on the one part suggest that the management may be positively influenced by large shareholders through the monitoring. However, on the other part, conceptual models may be negative due to entrenchment and self-serving actions of large shareholders that may not augur well with small shareholders. Joshi and Puri (2016) established that block holders have positive impacts on a firm but if they are careless in exercising their responsibility or have bad intentions then they could result in poor governance in a firm rather than improving it. New changes in the regulations are being set up to solve the problem of dominating block holders and minority shareholder rights as the shift of the corporate governance system.

Companies with high percentages of domestic and global corporate investors are expected to have minimal or less stock turnover variations, return on total investments (ROA) and market

value compared book value ratio due to consistent capital expenditures, research, and development investments, and reduced acquisition activities (Abedin, Haque, Tanjina & Kabir, 2022; Tanui, 2021; Huang & Lu, 2020).

The degree of competitive advantage in product markets influences corporate governance systems and practices differently. Modern theories propound that firms who enjoy high market power are in a vantage place to influence practices as well as governance structures across industry value chains (Porter, 1985). However, the existing analyses suggest that agency issues, combined with insufficient supervision of the leading market participants, can be relatively dangerous in terms of accountability and business ethics (Teece, 2020). According to the graph, there is indication that regulations move towards higher stringency of antitrust and policies to prevent monopolistic conducts in the firms; this has placed pressure on the firms to adopt governance structures that encourage stakeholder management, wealth creation for the long-term and ethical behavior (OECD, 2020).

Product market dominance (PMD) plays the role of takeover (Galle, 2000) because well-governed firm's take over poorly governed firms which is used as an internal corporate governance mechanisms alternative, ideally corporate market control. Choul et al. (2010) asserted that product market dominance positively affects financial performance which is used as a disciplinary competition force on the managers.

1.1.3 Regulatory Framework

A regulatory framework means a prescribed code of conduct that has been developed to guide the running of institutions, industries or certain activities. It usually encompasses rules and regulations that are set by the legal bodies with an aim of eradicating vices, acting in the public

interest, and discouraging wrong docketed various stretches of a specific territory in as much as promoting the set appropriate ethical standards within the said area of discipline. Again, regulations are developed to offer a framework within which organizations are supposed to operate by establishing procedures on reporting, operation, responsibility, and repercussions for violation of the rules suitably established (Baldwin, Cave, & Lodge, 2012).

In the context of corporate governance, regulations are a variable which mediate the relationship of governance mechanisms and firms' performance of cross listed firms in the EAC region. These frameworks set out rules governing the level of transparency, accountability and compliance, which either positively or negatively influence the governance mechanisms such as board of directors' sample and executive compensation. Thus, contrary to independent or dependent variables modifying the intensity or sign of relation between the variables of interest, the regulatory framework changes the intensity or sign of the relations between the governance practices and financial results. It is, therefore, a key factor in influencing the process of deploying and practicing governance mechanisms to actualize financial success; it orients the operational environment (DiMaggio and Powell, 1983).

The Regulatory framework plays a very important and a critical function in determining the failure or success of a corporate governance structure. An excellent corporate governance structure is strongly associated with those countries with strong legal systems (CMA & CMSA, 2022). Corporate governance involves operational rules and regulations that encompass the basis of inter-relationships, including procedures developed to facilitate the board's functions and harmonize shareholders' and boards' interests. A strong regulatory framework determines how boards operate and its effectiveness to meet shareholders' interests. Regulatory framework for the countries operating within East African Community are centered or defined in the

Companies Act which relates to companies' formation, duties of directors and listing, securities exchange regulations, and market regulators in different jurisdictions. The listing rules apply to all listed companies that define process or procedure to list in the market, quote share prices, access information available in the market, trading, and supervision policies (CMA & CMSA, 2022).

The four markets operating within EAC that includes NSE, USE, RSE, and DSE have common laws, rules and regulations governing the capital markets with few differences because of market-level developments (CMA & CMSA, 2022). The EAC capital markets regulatory framework facilitates trading in financial instruments with fixed income such as bonds, equity, investment schemes, and fund management services. Kenya, Tanzania and Uganda subscribe to the IOSCO which is an international authority that defines best operational practices and sets standards in securities regulations (CMA & CMSA, 2022). Tanzania and Kenya are already signatories of the IOSCO Multi-lateral Memorandum of Understanding relating to information dissemination and relation among the securities regulators while Uganda is still working to join IOSCO MMoU signatories (CMA & CMSA, 2022). Kenya, Uganda, and Tanzania EAC partner states are currently in the process of harmonizing the laws to fully comply with IOSCO principles of securities regulations. Rwanda is in the process to apply and become a member of the IOSCO MMoU signatory and they have developed their laws in compliance with IOSCO securities regulations principles (CMA & CMSA, 2022).

The corporate governance codes supplement the governing laws providing procedures on how to report by encouraging a compliance or explanation mode of documentation. EAC partner states have significantly adopted corporate governance principles which borrow heavily from developed countries. The concept of CG is still non-mandatory in some jurisdictions, but public

quoted companies must satisfy various conditions that are largely influenced by market forces that define best practices, and companies have to adopt them to attract investors. Corporate governance depends heavily on legal systems and corporate operational environment, but it's widely influenced by the associations among the parties participating in the governance system, majority shareholding which can be households, cross-listed companies, family shareholders, and corporate investors (Stulz et al., 2004).

Debt holders, corporate investors, and regulators act as external watchdogs on companies' performance while internal parties like managers, employees, and executive directors support the goals and financial performance of the firm while regulators provide a corporate and operational legal framework. Winter (2002) articulated that the failure of companies such as Enron in US brought several initiatives to strengthen CG improving safeguarding investors and instilling sense of confidence in the system.

The capital markets authority framework has changed from the 'Compliance or explanation' to the 'Apply or Explain' approach which is a regulatory concept that is prominent in the facets of CG and financial performance supervision that is based on codes that quoted companies can apply or explain publicly why they have not (CMA, 2014). The main objective behind 'apply or explain' is to give market forces determine when certain standards are applicable to specific firms. It is based on the idea that there is no acceptable way of regulating companies 'one rule applicable to all' because of disclosure requirements investors might decide to sell their shareholding signaling a market sanction instead of a legal one (CMA, 2014). The different attributes of the regulatory framework have largely contributed to varying financial performance with researchers providing mixed, contradicting, or inconclusive results. To

measure regulatory framework in different organizations this study used regulatory compliance index.

1.1.4 Cross-Listed Companies at East African Community Region

Economic integration has grown tremendously over the world, as exhibited by increased physical agreements by the end of 2016 (World Trade Organizations (WTO), 2017). The increase indicates that most of the countries are integrating and forming trading blocs to boost their economies such as customs unions, free trade areas, monetary unions, and common trading markets. The East African Community (EAC) capital markets exist primarily to assist in raising finances to investment opportunities that are productive, provide an avenue to mitigate risk, improve the allocation of resources, and connect savers, investors and managers (Irving, 2005). As a result of East Africa integration, there has been increasing cross-listing of companies in different securities or exchanges to spearhead formation or creating of a single security or exchange market.

Focusing on publicly cross-listed companies in the East African Community region provides a unique opportunity to study corporate governance mechanisms and their impact on financial performance due to the specific challenges these entities face. Cross-listed companies, listed on multiple stock exchanges, operate under stricter regulatory scrutiny and must comply with various governance standards, making them ideal for examining regulatory effects. This dual compliance reveals how governance practices adapt to different regulatory environments, which may not be as evident in privately held firms or those listed on a single exchange. Moreover, publicly cross-listed firms are generally larger and more visible to investors, requiring greater transparency and accountability. This visibility facilitates a clearer analysis of governance mechanisms and financial performance, as these companies attract more

investor interest and adhere to rigorous reporting standards. In contrast, private firms often face less regulatory oversight and investor pressure, leading to less standardized governance practices and obscuring the governance-performance relationship. Therefore, the emphasis on publicly cross-listed companies enhances the understanding of how governance mechanisms interact with regulatory frameworks to influence financial outcomes in a competitive market (Khan & Zaman, 2020).

Corporate governance is significant in determining the legal requirements and the market operations of various firms. Member countries of EAC include Kenya, Uganda, Tanzania, Rwanda, Burundi and South Sudan; all these countries have set regulatory institutions for corporate disclosure and ethical conduct. The EAC has other frameworks like the CMA in Kenya and the DSE in Tanzania whose role is to ensure that the EAC's corporate governance framework is on par with global standards and compliance on issues such as financial reporting requirements and monitoring tools. These frameworks are meant to build confidence among the investors while promoting regional integration among firms operating in EAC and thus improving their financial performance. Research also shows that sound corporate governance provisions have direct impact on profitability by solving agency costs dithering between the firm's management and shareholders (Okiro, Aduda, & Omoro, 2015).

In the East African Community (EAC), several companies have embraced cross-listing to enhance market integration and expand their investor base. EAC region have four operational stock/securities exchanges with a total of 11 companies cross-listed such as Umeme limited (Ugandan company) listed in USE & NSE, Bank of Kigali Group (Rwandan Company) listed in RSE & NSE, Equity group Holdings Ltd (Kenyan Company) listed in USE, RSE & NSE, Nation Media Group (Kenyan Company) listed in RSE, USE, DSE & NSE, Uchumi

Supermarkets (Kenyan Company) listed in USE, RSE, DSE & NSE, East African Breweries (Kenyan Company) listed in USE, DSE & NSE, Centum Investments (Kenyan Company) listed in USE & NSE, Jubilee Holdings (Kenyan Company) listed in USE, DSE & NSE, KCB Group Ltd (Kenyan Company) listed in USE, DSE & RSE, Kenya Airways (Kenya Company) listed in USE, NSE & DSE, and I & M Group (Kenyan Company) listed in RSE & NSE (CMA & CMSA, 2022).

Nairobi Capital Market started in 1954 as a non-mandatory organization of brokers regulated under the Societies Act. In September 1996 Tanzania incorporated the Dares Salaam Stock Exchange (DSE) which started operations in April 1998 with the listing and trading of its equity (DSE, 2021). In 1997 Uganda Stock Exchange in Uganda was licensed by CMA Uganda and approved to operate in 1998 after listing the East African Development Bank (Maiden instrument) bond worth 10 billion (CMA, 2021). Rwanda which is one of the states of the EAC followed later with the Rwanda Stock Exchange in 2011 which continued the operations by Rwanda over the counter trading platform which started bond trading in 2008 with only Bralirwa stock in the manufacturing sector trading (RSE, 2022). Burundi is yet to establish its capital market, but plans are underway to develop a capital market development framework for the country to support company financing which is currently facilitated by commercial banks.

Mwangi et. al. (2014) advocates that in Kenya, there is increasing development pushing for more corporate governance structures and institutions and increasing regulations that provide governance models for companies such as CMA Act and the companies Act. In countries like Uganda, CMA regulatory framework provides acceptable standards of corporate governance for quoted firm's and debt financiers on board composition, CEO position, chairman position shareholders rights, organization of special and general meetings, formation of independent

committee on audit. Capital Market Authority started in Tanzania in 1994 to regulate securities trading, protect market trading, and launch the stock exchange. EAC member states operate under the same guidelines signed under East African Securities Regulatory Authority which includes Kenya, Uganda, and Tanzania which have similar system of law, unlike Rwanda and Burundi which operates under system of civil law (Capital Market Authority (CMA), 2019).

1.2 Statement of the Problem

The different authorities within the government and individual companies have greatly committed their resources to create an enabling environment for doing business within East African Community region. Despite EAC region partners investing heavily to improve market infrastructure and promote securities integration, the companies cross-listed in these markets have recorded mixed results in financial performance with majority recording dwindling liquidity and profitability evidenced by the increasing number of profit warnings issued, closed operations, securities markets suspensions, mergers & acquisitions, and restructuring (CMA & CMSA, 2022). As evidenced in table 1.1 average ROA has consistently been declining from 2013-2022 (CMA & CMSA, 2022). In East Africa, governance debate has continued in the areas of companies' ownership where mismanagement, corruption, and institutional support through subsidies to struggling companies such as Mumias Sugar Company, Kenya Airways, Stanbic bank Uganda, Uchumi Company Ltd. and, Tanzania just to name a few which have been exposed to the public for wrong reasons (Fulgence, 2014 & Cheserek, 2007).

Some studies relating to independent directors and financial performance support a direct relationship between the variables (Arora & Soni, 2023; Mihail and Micu, 2021) while other studies support indirect association (Mishra, 2023; Onong, Nasih, Anshori & Harymawan, 2022). Studies such as (Rehman et al., 2021; Soni & Singh, 2020) support directors'

remuneration and financial performance positive interactions while others such as (Sharmin et al., 2020 and Md Zain, 2019) reported inverse relationship between the variables. Some studies such as (Saidu & Gidado, 2018; Sani, 2020) reported an inverse association between executive director's shareholdings and financial performance while (Ogabo, Ogar & Nuipoko, 2021) reported a direct association between the two variables. Few studies carried out on independent auditors and financial performance support positive and significant results (Al-ahdal and Hashim, 2021; Meah, Sen & Ali, 2021) while other studies provide mixed results such as (Al-Ani & Mohammed, 2015). Some studies (Kajim, 2020) argue that correlation between corporate block holding, and financial performance is null while (Abedin et al., 2022; Tanui, 2021 & Eluyela at al., 2020) advocates for a significant and a direct connection between the variables. While some studies (Königsgruber et al., 2021; Thu & Minh, 2022) reported a indirect association between the variables, others (Mubeen et al., 2022; Shin & Lee, 2023; Liu et al., 2020) corroborate the direct correlation of product market dominance and companies' financial performance.

Typically, most studies on internal and external CG were conducted in developed and emerging markets. Within developing markets, namely in East African nations, most of the research primarily examined internal CG mechanisms, neglecting the exploration of external CG mechanisms. By combining internal and external CG processes, this study looked at how CG affected financial performance. Numerous studies that were carried out failed to appreciate the effect of a moderator variable on the connectedness between financial sucess and corporate governance. To improve the efficacy and efficiency of CG procedures, this study used a holistic methodology by looking at how regulatory frameworks affect the interactions between CG frameworks and financial performance. Specific criteria or stand-alone factors were utilized to assess financial performance. This research acknowledges the significance of considering

several indicators of financial performance due to their distinct responses to corporate governance procedures. Financial performance was evaluated by utilizing the financial metric of ROA and Tobin's Q which indicates the market value. Prior studies tend to concentrate on a single sector or a specific area of the market. This research focused on firms that are cross listed in the EAC region. This study investigated the effect of corporate governance mechanisms and regulatory framework on the financial performance of companies listed in the East African Community Region.

1.3 Objectives of the Study

The primary aim was to investigate the effect of corporate governance mechanisms, regulatory framework on the financial performance of the publicly cross-listed companies in the East African Community Region.

1.3.1 Specific Objectives

The specific purposes of this study were to:

i. To establish the effect of independent directors on the financial performance of the publicly cross-listed companies at the East African Community Region.
ii. To establish the effect of executive director’s remuneration on the financial performance of the publicly cross-listed companies at the East African Community Region
iii. To determine the effect of executive director’s shareholding on the financial performance of the publicly cross-listed companies at the East African Community Region.
iv. To establish the effect of independent auditors on the financial performance of the publicly cross-listed companies at the East African Community Region
v. To determine the effect of corporate block holding on the financial performance of the publicly cross-listed companies at East African Community Region.

vi. To establish the effect of product market dominance on the financial performance of the publicly cross-listed companies at the East African Community Region

vii. To determine the moderation effect of regulatory framework on the association between corporate governance mechanisms and the financial performance of the publicly cross-listed companies in East African Community Region.

1.4 Research Hypothesis

i. **H_{01}**: Independent directors don't have a significant effect on financial performance of the publicly cross-listed companies at the East African Community Region.

ii. **H_{02}**: Executive director's remuneration doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.

iii. **H_{03}**: Executive director's shareholding doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.

iv. **H_{04}**: Independent auditors don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.

v. **H_{05}**: Corporate block holdings don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.

vi. **H_{06}**: Product market dominance doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.

vii. **H_{07}:** Regulatory framework doesn't significantly moderate the association between corporate governance mechanisms and financial performance of the publicly cross-listed companies in the East African Community Region.

1.5 Significance of the Study

The influence of CG control systems on financial performance has been the subject of competing and contradictory prepositions in finance theories like as agency, stewardship, and stakeholders. This study contributed to solving such conflicts by investigating the effect of internal, external CG control mechanisms on the financial performance.

This research contributes significantly to key capital markets regulators such capital market authorities, central bank of Kenya, insurance regulatory authorities among others by providing information that enables them to develop understanding and control mechanisms in line with recent suggestions in governance and control to promote companies' operational effectiveness and efficiency, openness, and accountability and increase management effectiveness when maximizing shareholder's wealth.

The study contributes to helping learning institutions by providing empirical literature that can be regarded as a backup in the formation of ideas for researchers' investigation further research in the same area in the future. Some important areas that may be inconclusive in this study, researchers have a good starting point to study and increase research based on profound limitations.

The findings are as well beneficial to individual investors, potential and current investors as well as corporate investors when it comes to making activity decisions. Investors are able to invest in good-performing firms based on facts relating to profitability, liquidity, financial leverage, and asset capitalization.

1.6 Scope of the Study

The goal of this research is to comprehend the effects CG mechanisms on the financial performance. It involved an analysis of integrated reports, audited financial statements, shareholder profiles and investor relations reports of 9 entities cross-listed at the East African Community Region for a period of 10 years from 2013 to 2022 with accessible financial statements. This timeframe of analysis encompasses growth and decline where global financial crisis, advancement in technology, changes in regulations, and most importantly the shock of the COVID-19 pandemic on the financial markets offering insights into the resilience and adaptability of cross-listed companies in the EAC. Corporate governance was conceptualized in both internal control mechanisms (independent directors, executive director's remuneration, and executive director's shareholding) and external control mechanisms (independent auditors, corporate block shareholding and product market dominance). Regulatory framework was the moderating variable measured using the regulatory framework index. Tobin's Q and Return on Assets (ROA) were the measurements used to assess financial performance. An explanatory non-experimental research approach was used in the study. This study employed panel data to construct a panel regression model, which served as a foundation for elucidating the connection between the variables, as proposed by Greene (2008).

1.7 Organization of the Study

There were five chapters in the research thesis. The fundamental concepts, such as CG mechanisms, the regulatory framework, and financial performance, are introduced in Chapter 1. This offers a strong foundation for developing the research topic, objectives, and hypothesis as well as establishing the study's importance and outlining any restrictions or limitations. A thorough evaluation of the theoretical and empirical literature is given in Chapter 2. This study looks at four different theories: stewardship, agency, stakeholder, and resource reliance. The

study also includes the creation of a conceptual framework, identification of research gaps, and a summary of the literature evaluation. Chapter three encompasses several components such as study design, research philosophy, target population, data collection technique, empirical model, the measurement and operationalization of research variables, data analysis, and diagnostic tests. Chapter four encompasses the examination and elucidation of the collected data. Chapter five covers the summary of findings, conclusion and the impact on management policy and practices, derived from the conclusions and recommendations for further investigation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a thorough analysis and assessment of theoretical and empirical research on the regulatory frameworks, financial performance, and corporate governance mechanisms. The impact of the regulatory framework on corporate governance processes and their relationships to financial performance were explained using a conceptual framework. The knowledge gaps that serve as the foundation for this investigation were revealed by a rigorous analysis of the body of research material already in existence.

2.2 Theoretical Literature Review

To establish the effects of corporate governance mechanisms and the financial performance of companies listed in multiple stock markets, this study was grounded in theories of capital structure and corporate governance. Stakeholder theory, stewardship theory, and resource dependence theory are the main theoretical frameworks connected to corporate governance. The agency theory was used as the appropriate framework for capital structure analysis.

2.2.1 Agency Theory

Agency theory was introduced by economists Stephen Ross (1973) and Barry Mitnick (1974). The theory addresses the relationship between principals (owners or shareholders) and agents (managers), highlighting the conflicts that arise when the interests of the two parties diverge. Proponents of the theory, such as Jensen and Meckling (1976), argue that managers (agents) may not always act in the best interests of shareholders (principals), leading to agency problems. Agency theory generally states that in corporate settings, agents may pursue their own goals, which might not align with the principals' objectives of maximizing shareholder

wealth. To mitigate these conflicts, mechanisms such as contracts, performance-based incentives, and monitoring are suggested. The theory plays a critical role in understanding corporate governance structures and the mechanisms that align the interests of managers and shareholders.

Conflict due to divergence of ownership and control is experienced when management fail to maximize shareholder's returns due to an increase in expenses that are not incurred when the owners and managers are the same (Berle & Means, 1976). This means part of their returns that they could have had if they managed the company directly goes to agents because of increased agency costs. In contrast, lenders have same view as shareholders when it comes to financial performance. This view can change when a firm is facing difficulties (Jensen & Meckling, 1976). Managers or directors can't fully pursue the interest of shareholders as mandated because of their selfish interests (Padilla, 2000). Such conflicts were highlighted by (Berle & Means, 1932; Ross, 1973; Adams & Smith, 1976; Jensen & Meckling, 1976; Davis, Schoorman & Donaldson, 1997).

In a financial context, the major problem is information asymmetry between managers and owners. Here, insiders who are managers do have an advantage when it comes to information. The lenders and shareholders' main common goal is to rescue the firm. Agency problems such as moral hazards and asymmetric information can influence access to finance. The minimum rate of return is used for the rejection or acceptance of available investment opportunities because for a project to be accepted it must be viable to generate cash flows that was enough to cover the investment's initial outlay. It is practical to reduce the cost of financing to maximize shareholders wealth by use of debt. This theory narrowly focuses more on the agent-principal problem as the main cause of all company conflicts and failures, not considering other

stakeholder's roles and interests. Adoption of CG mechanisms align management and director's interests with those of owners resulting in improved performance translated to huge returns to shareholders thus maximizing company value which couldn't be possible with the competing interests of managers (Hillman & Dalziel, 2003).

This theory was employed in this study to support and provide a foundation for the analysis of financial performance. Agency theory assumptions suggest that effective CG procedures can harmonize executives and corporate board members interest with those of shareholders. This alignment promotes operational efficiency and optimal allocation of resources within the firm, ultimately leading to improved financial performance and increased returns for shareholders. This hypothesis also advocates for the correlation between independent directors and financial performance. Assuring transparency in reporting and performance disclosure, keeping an eye on managers' actions, and critically assessing management decisions to maximize shareholder value are all important aspects of independent directors' roles in corporate governance.

2.2.2 Stakeholder Theory

Stakeholder theory was introduced by R. Edward Freeman in 1984 in his work Strategic Management: A Stakeholder Approach. The theory broadens the focus of corporate governance beyond shareholders to include all stakeholders affected by a company's operations, such as employees, customers, suppliers, communities, and governments. Proponents like Donaldson and Preston (1995) argue that businesses should aim to balance the interests of all stakeholders rather than just maximizing shareholder profits. The theory asserts that long-term corporate success is tied to ethical management practices and addressing the needs of all parties involved, which enhances trust, reputation, and sustainability.

Stakeholder theory, in contrast to agency theory, aims to enhance competitiveness by fostering trust, reputation, and goodwill. In the modern world, the new economy is complex, and changes are witnessed in all areas. This approach seeks to optimize the company's value by considering or incorporating views of different stakeholders such as employees and making them proud, paying suppliers on time, creating value for shareholders by achieving expected returns, meeting customers' demands, and protecting the environment to benefit the community contributes to companies' success (Jianu, 2006). This theory has also some weaknesses because the best results from this theory can only be realized when it is applied on a continuous basis in a company and sometimes the assessment of the analysis of this theory is very subjective. It is also argued that stakeholder interests can be met at varied times and as usual the company gives more attention to stakeholders like shareholders of the company instead of employees and consumers. Stakeholder theory diverts manager's and directors' attention from creating business success to concentrating on who is affected by their decision (Andrea, 2006).

Villiers and Staden (2011) explained the existence of corporate regulations enforce an adherence basis symbolizing a financial effort to increase the manager's chances of being held answerable and responsible for any act of non-compliance. Corporate governance mechanisms should ensure that shareholders earn good returns based on their level of investment while at the same time ensuring that other stakeholders who have ties with the organization are fully satisfied. This theory was employed to elucidate the interplay between corporate block holding and financial performance, and their significance in upholding a harmonious equilibrium of stakeholder interests. It serves as the primary factor influencing corporate policies, encompassing both corporate governance procedures and financial performance. This theory also explains the function of independent directors and auditors in ensuring that the board is

independent, increases transparency, and independent auditing that instills confidence among stakeholders.

2.2.3 Resource Dependence Theory

Resource dependency theory was introduced by Jeffrey Pfeffer and Gerald R. Salancik in 1978 in their book The External Control of Organizations: A Resource Dependence Perspective. The theory posits that organizations are not self-sufficient and must depend on external resources to survive and thrive. These resources, controlled by other entities, create dependencies that influence the organization's behavior and strategy. Proponents like Hillman, Withers, and Collins (2009) argue that firms strategically manage their dependencies by building relationships, forming alliances, and integrating external actors like board members to reduce uncertainty and maintain access to critical resources. The theory emphasizes that a firm's success largely depends on how effectively it manages its external environment to secure necessary resources for its operations.

This theory attempts to reduce dependence on other firms' resources by recognizing its risks and uncertainty (Hillman et al., 2009). This emphasizes the need for the directors to mobilize needed resources, skills, and much-needed experience. A large-sized board provides a firm with wider connections or interlocks increasing access to resources. Previous researchers emphasized more members sitting on a board to provide the firm with the needed resources (Hillman et al., 2009). Pfeffer (1972) and Sanders and Carpenter (1998) in the study found that board members increase as the firm's resource dependency increases. However, other researchers suggested that the size of the board depends on different indicators including the firm's strategic direction and its previous performance, and not solely on externalities (Pearce & Zahra, 1992). Boyd (1990) also argued against the idea of focusing on size of the board and

suggested that studies should emphasize more on the classification of directors appointed to sit on the board instead.

The resource-dependence approach highlights the importance of recruiting independent directors to strengthen and safeguard the company from unexpected influence, thereby reducing anomalies and the risk of resource co-option. This, in turn, enhances the organization's capacity to enhance its recognition, status, and fundraising capabilities. Further, Kor and Misangyi (2008) found that the independent director's fraction is associated with capital structure-measured debt levels. This is because they more actively monitor managers, causing the adoption of lower leverage to get improved performance results by managers. It also stipulates that resources generated internally have the power to influence the process of allocating resources which can be weak or strong, but it depends on whether directors are insiders, business experts, support specialists, or community influential.

Unlike stewardship theory, resource dependence theory affirms that independent directors and interlocked directors are advantageous to organizations. These benefits include the presence of information in advice and counsel form, information channels between environmental contingencies and firm access, legitimacy, and preferential resource access. In contrast to other corporate governance theories, this theory emphasizes the important of independent directors in providing resources, but it undermines important role that these independent directors play in disciplining managers, monitoring their behavior, adopting takeover defenses, and protecting shareholders. This theory was used to explain product market dominance and financial performance interactions. This is because as the company's market share and reputation increase, revenues increase, which contributes to the increase in profits resulting in

an increase in the company's retained earnings. This reduces the company's pressure for external borrowing, reducing costs and thus increasing its financial success.

2.2.4 Stewardship Theory

Stewardship theory was introduced by Donaldson and Davis in 1989 as an alternative to Agency Theory. It posits that managers, as stewards, are inherently motivated to act in the best interests of the organization and its stakeholders, rather than pursuing personal gains. Unlike Agency Theory, which assumes that managers prioritize their self-interest, Stewardship Theory argues that managers are driven by organizational success, trust, and responsibility. Proponents like Davis, Schoorman, and Donaldson (1997) suggest that when managers and principals (owners) share aligned goals, this fosters a cooperative environment that benefits the entire organization. The theory emphasizes that empowering and trusting managers leads to better performance, as they are naturally inclined to work toward the organization's long-term success.

Unlike agency theory where managers and directors take decisions for their benefit, Steward's theory argues that agents work to maximize investor's returns in each level of conflict of interest putting the company's interest before their interest. It is based on the idea that executives and workers should work more autonomously to make shareholders' returns. In contrast to agency theory, the foundations of this theory can be related to the work of MC Gregory in the 60s and more particularly the Y-theory which stipulates or argues that managers/directors are rational human beings and there is no need to monitor their behavior or actions excessively (Nicholsons & Kiel, 2007). This reduces agency costs (monitoring and controlling costs) which contribute to an increase in companies' profitability.

On the flip side, Daily et al. (2003) reported that executives and management should make the best decisions to maximize financial performance to protect their careers and reputation as strategic decision-makers. Stewardship theory also states that inside directors and managers are best at serving and acting in favor of shareholders in all circumstances, unlike external members who are unaware of the company's operations. Inside directors know much about the company affairs because they greatly access information compared to independent directors (Donaldson & Davis, 1991).

Despite the stewardship theory arguments, this theory also has some problems due to unrealistic assumptions which are incomplete and achievable. It is anchored on the idea that people who are entrusted with the management of investor's properties are self-actualizing rather than self-serving and self-interested. Self-serving doesn't indicate how people think and behave. Secondly, this theory also assumes that when people have these attributes, they overlook their self-serving interests and focus on shareholders' interests. This doesn't fully address the different interests of key stakeholders. Third, this theory also assumes that excessive monitoring and executive remuneration incentives are not necessary because managers' interests are already harmonized with the interests of other stakeholders. This fails to consider mechanisms for communication and motivation. This theory fails to discuss the ability of stakeholders in accessing and processing information or understanding pre-employment considerations, which are fully addressed in the agency theory and have a direct influence on how managers or directors conduct themselves as stewards (Madison et al., 2016).

Despite the flaws, arguments of this theory are applicable to affirm the interactions between corporate block holding and financial performance. This is because corporate or institutional investors determine corporate boards of directors and executives to be good stewards who seek

to achieve the corporation's goal as stewards and perform their responsibilities as required by shareholders. This helps to harmonize different activities, strategies, and choices with the interests of the shareholders; make the best decisions to protect their reputation and careers despite conflicting situations to maximize financial performance which translates to better returns to the shareholders. This theory also underpins executive director's remuneration which is linked to financial performance because if the board of directors and managers perform their responsibilities as required by shareholders to protect their wealth and increase profitability, their payment or remuneration in the form of salaries, fees, bonuses, and allowances for the services provided is expected to increase as a reward for a good performance.

2.2.5 Institutional Theory

Institutional theory was primarily developed by scholars such as Richard Scott and DiMaggio and Powell in the 1980s which offers a framework for understanding how institutional contexts influence organizational behavior. This theory holds that organizations have their behaviors and decision-making determined by institutional forces within environments they operate in such as legal systems, approved or expected codes of conduct and beliefs that exist within societies (Scott, 2008). In corporate governance, institutions play middle roles that offer guidance that defines the standards and what practices are acceptable in organizations, the board of directors and practices or formations of reporting.

The central notion that pervades, drives, and helps to explain Institutional Theory is legitimacy. Organizations look for approval from the stakeholder groups such as the regulatory agencies, investors and society in general. Essentially, legal compliance as a way of obtaining this legitimacy can be traced to regulatory requirements. When organizations stick to these regulatory pillars, they tend to be viewed as responsible, and nothing is as adverts more

stakeholder confidence than responsibility the key to sustainable organizations (Suchman, 1995). Thus, while in the sphere of corporate governance, the notion of regulation is not one that simply speaks of avoiding fines; it is one of the creations of the conditions conducive to the effective stewardship of stakeholders' investments in the company.

Other important aspects that have been discussed under the theory comprise of isomorphism where organizations working in a particular field end up copying the other organization's processes because of pressures from institutionalized processes. DiMaggio and Powell (1983) identified three forms of isomorphism: Coercive, mimetic and normative. Coercive isomorphism emanates from formal pressures from regulatory bodies and laws. Mandatory compliance happens to be observed by organizations to meet the legal requirements and to avert sanctions. In corporate governance, this can be viewed in the form of implementation of certain approaches to governance provided by regulatory agencies. Mimetic isomorphism arises when organizations emulate other similar organizations, best practices and or industry leaders due to ambiguity within regulatory frameworks. This emulation can result in institutions emulating what are the most effective strategies in the realm of governance since organizations refer to the rest to learn about the most effective compliance strategies.

Finally, normative isomorphism arises from professionalism as coated by associations and educational organizations thus making organizations conform to society expectations hence increasing credibility (DiMaggio and Powell 1983). Regulatory frameworks are therefore other institutional forces recognized by Institutional Theory as influential in organizations. These frameworks set a box within which organizations perform and they shape different aspects of corporation's governance. For instance, legal demands may prescribe board composition, the remuneration of managers, and information reporting, which define self-governance and

stakeholder relations in organizations (Zucker, 1987). This shows that while trying to gain protection over matter most organization find themselves in a fix due to strain that comes with having to deal with such regulations without compromising their strategic plans.

Moreover, organizations usually need to evidence their ability for changing on the regulation-related issues. These dynamics are critical in managing new institutional environments as well as achieving its own strategic direction. The organizations that can overcome these challenges may possibly use strategic compliance, in which they go beyond minimum compliance by implementing the optimal measures in governance identified in the literature (Kraatz & Zajac, 2001). It also has the added benefit of strengthening the company's image and repairing the relationship with stakeholders, rankings for which form a valuable competitive edge.

2.3 Empirical Literature Review

It involves reviewing relevant literature based on study objectives that related to corporate governance mechanisms, independent directors, the executive director's remuneration, the executive director's shareholding, independent auditors, corporate shareholding, product market dominance and financial performance. It helps to identify research gaps such as contextual, methodological, conceptual, geographical, population, statistical and theoretical gaps that inform the research problem in the study. The researcher provides analysis on how the gaps identified were addressed in this study.

2.3.1 Independent Directors and Financial Performance

In a study conducted by Mishra (2023), the aim was to analyze independent directors and financial performance interactions in all publicly traded companies in India from 2003 to 2019. The findings indicated an indirect connection of the proportion of autonomous directors and

financial performance. This study failed to recognize the influence of moderating variables. This study investigated how the regulatory environment affects interactions of independent directors and financial performance, with a specific focus on the interaction effect. This study was undertaken in growing markets, and its findings cannot be replicated in growing nations. This study research was undertaken in developing nations within the East African Community (EAC) region.

Arora & Soni (2023) conducted a study utilizing dynamic longitudinal data spanning from 2013 to 2019 to analyze the effect of board independence on the financial performance of 442 companies in India. The report shows that companies with a bigger percentage of autonomous directors, particularly those over 50%, see a substantial influence on their financial performance. The previous study was undertaken in emerging markets, while the present study was conducted in underdeveloped countries, enabling the findings to be extrapolated. The study originally focused on a particular segment of the market, but the revised analysis will include all public entities on several stock exchanges within the East African Community (EAC) region. The analysis did not account for the impact of a moderating variable on the correlation between board independence and financial performance. This study investigated the impact of the legislative framework on the correlation between CG systems, namely the autonomy of corporates oversight body, and the financial performance of corporations listed on several stock exchanges.

The study conducted by Onong, Nasih, Anshori, and Harymawan (2022) investigated the how independent directors and commissioners influence financial performance of public entities on the Indonesia Stock Exchange from 2010 to 2017. The study utilized the ordinary least squares model. The study revealed that companies suffer from a detrimental effect on their performance

when they have independent commissioners and directors that had political affiliations. The study was done in emerging markets, specifically in EAC countries, to apply the findings. This study employed a distinct sample size to examine a particular market segment, while the present study examined all enterprises operating in the EAC region that are cross listed.

The study conducted by Al-Saidi (2021) looked at correlation of board independence and the financial success of enterprises in Kuwait. This study provides empirical data supporting a inverse correlation between the autonomy of governance body and the performance of enterprises, as assessed by TOBIN Q. This implies that the existing criteria for board independence do not offer any further benefits to publicly traded companies in Kuwait. The study evaluated a company's performance based on one specific aspect, nevertheless, performance demonstrates diverse reactions to other elements. The current investigation assessed financial performance using ROA and Tobin's Q. The study failed to consider the impact of a moderating factor. This research assessed regulatory framework influence on the correlation between boards' independence and financial performance, with a specific emphasis on the moderating effect.

In their study, Mihail and Micu (2021) examined independent directors and the financial performance interactions of publicly traded entities on the Bucharest Stock Exchange between 2016 and 2020. The results show that a higher percentage of independent directors has a notable and mutual influence on the financial performance of firms. The research was carried out in emerging nations, whereas the present study was undertaken in developing economies to assure the applicability of the results. This study neglected to recognize the importance of moderating variables. This study investigated how the regulatory environment affects the connection between CG and financial performance.

Nguyen, Evans, and Meiting (2017) undertook research to understand the interactions of independent directors affect the performance of companies in Vietnam. Furthermore, they uncovered the ownership structures and share connections on the performance of these businesses. This study examined 217 non-monetary firms between the years 2010 and 2014. This study utilized OLS regressions to assess the interactions of independent directors and financial performance. It was found that the inclusion of independent directors has a detrimental effect on the operational success of the company and hampers their ability to effectively monitor the organization. Furthermore, the study documented a detrimental association between independent directors and financial performance in situations when the state possesses most shares or serves as the primary investor. Like the current study, secondary data was employed. This study investigated the role of independent directors by analyzing their presence, the ownership structure, and the degree of controlling interest. This study considers the compensation of independent directors and executive directors as distinct variables. The research was carried out in Vietnam. The period of this investigation was extremely short. The researcher conducted an understanding of the financial performance patterns of firms operating in East Africa over a period of 10 years. This study employed a large statistic and included all firms listed on multiple stock exchanges within the East African Community (EAC) region.

The study undertaken by Palaniappan (2017) aimed to analyze board parameters influence on the financial performance of Indian manufacturing companies. The study specifically examined 275 public entities on the NSE throughout the period from 2011 to 2015. Multiple regression models were employed to ascertain the effect of board features on financial performance, namely market and accounting based KPIs. The findings indicated a clear inverse interaction between the extent of features and financial performance metrics. The results revealed a clear inverse interaction of board magnitude and performance, as assessed by

Tobin's Q, ROA, and ROE. The findings contradict the previous research results. The study particularly analyzed board attributes, however without specifying the criteria employed for picking these characteristics. The study was carried out in Indian manufacturing companies, comprising a sample of 225 firms over a span of 5 years. The current study utilized a decade-long research period and included all financial and non-monetary institutions to enhance the sample size. This study employed secondary data to facilitate the implementation of longitudinal analysis. The current investigation incorporated additional measures of corporate governance, including board remuneration and the board's equity ownership.

Malik and Makhdoom (2016) conducted a study to analyze how CG frameworks affect the financial performance of 500 multinational firms. The study utilized a quantitative research design, which is consistent with the positivist research paradigm. Employed secondary data. The findings substantiated clear and direct connections among CG mechanisms and performance, indicating minimal number of members can be linked with enhanced financial success. Furthermore, this study found that including persons with diverse corporate backgrounds to govern improves the decision-making process and increases transparency. The CEO's compensation was found to have a negative connection with performance. In this research a sample size of 500 global firms were considered. The current investigation was carried out in Kenya, utilizing the gathered data for the companies registered on the Nairobi Securities Exchange (NSE). The salary of the executive director was examined in this study. Regulatory compliance moderation effect on the correlation between CG and financial performance was studied. Likewise, this study employed preexisting data collected over a period of 10 years.

2.3.2 Executive Director's Remuneration and Financial Performance

Rehman et al. (2021) undertook research on executive remuneration and corporates performance based on 860 quoted non-monetary firms in China from 2004 to 2018. The study reported a direct association between executive remuneration and profitability. This research was undertaken in a developed country; this research was undertaken in developing countries. The parameters comprised of non-monetary firms, however this research focused on both financial and non-monetary companies. This research was undertaken in one segment of the market, this research was carried out in all sectors of the securities exchange.

Soni and Singh (2020) undertook a study to understand the interaction between directors' remuneration and performance both in short and long run period based on 30 quoted companies in India from 2002 to 2019 reported a tremendous increase in director's remuneration for the period with a significant change in remuneration composition with fixed components increasing for the last five years and variable components declining. The results also indicated that there exist short-term interactions between remuneration to directors and a firm's performance. This research was undertaken in emerging economies, this research was carried out in developing countries. This study considered several parameters (sample) which are subject to sampling errors, however the current study considered all cross-listed firms. This study investigated short-term associations between the variables. This research enriched empirical literature by analyzing the long-term interactions between a director's compensation and performance. The study addressed one segment of the market; this research focused on different segments within the EAC region.

A study on director incentives using director's remuneration as a proxy was conducted by (Sharmin et al., 2020) using a generalized method of moments focusing on 140 listed textile

companies in the Dhaka Stock Exchange from 2011 to 2017 reported an inverse interaction between executive remuneration and companies' performance. It was based on a single segment of the market; this research focused on different segments within the EAC region. This research was undertaken in developed countries, this research was conducted in developing countries. The current study was analyzed using panel data models. The current study considered regulatory framework moderation effect on executive remuneration and companies' performance interactions.

Rasoava (2019) investigated the non-linear interactions between remuneration to directors and a firm's performance targeting all public companies in Johannesburg Stock Exchange forming three panel data samples from 2005 to 2016. This research affirmed a direct interaction between remuneration to directors and ROE, which is likely to diminish after a year while executive remuneration and firm's association was found to be strongly related both in short and long period. This study used different samples and association the between the variables could be significantly affected. However, the current study considered all cross-listed firms. The current research was undertaken in one segment of the market, this study focused on different segments within EAC region. This study added to the literature by considering more current periods up to 2022.

A study on director compensation on a firm's performance carried out by (Md Zain, 2019) in Malaysia's Telecommunication Industry based on a sample of five companies with 25 observations from 2013 to 2017 reported inverse relationship between director's remuneration, board structures, and performance. This research considered a few parameters (sample) and short period which limits the researcher to observe the future effects of remuneration to directors on companies' profitability. However, this research considered a larger sample for 10

years. This research was undertaken on one sector within the market, this research considered different sectors integrated within EAC region.

2.3.3 Executive Director's Shareholding and Financial Performance

Ogabo, Ogar, and Nuipoko (2021) investigated the effect of shareholding ownership on the performance of 48 companies listed in the United Kingdom's FTSE. Data was gathered from panels spanning the years 2008 to 2018. ROA, Tobin Q, and ROE served as metrics for assessing financial success. The study discovered a clear and substantial correlation between the shares purchased by company executives and the performance of the firm. This research was undertaken in developed markets, unlike the current study that was carried out in developing markets within EAC region. This research was undertaken in one segment of the market, this research was conducted in different markets within EAC region. The current study considered the regulatory framework moderation effect on the association among the variables.

In a study undertaken by Sani (2020), the correlation on the ownership of executive directors and the financial performance of Nigerian listed companies was investigated. The analysis employed panel-balanced data from 71 public entities, covering the time frame from 2012 to 2018. The study's findings validated the existence of an inverse or detrimental correlation between the shares subscribed by management and performance interactions. The effect of autonomous board moderation on the shares acquired by managers and the performance was direct, although statistically insignificant. The study specifically targeted a particular niche within the market. The present study specifically examined various divisions within the East African Community (EAC) region. The present investigation extended the duration of the study to a period of 10 years, considering the existing data. This study employed the concept of board autonomy as an internal indicator of CG. The degree of autonomy of the board may be closely

linked to the management fraction of shares. Nevertheless, the reliability of these results is uncertain due to the limited evidence supporting diagnostic approaches such as multicollinearity. This variable was unsuitable for moderation. This study investigated the role of the regulatory framework as a moderator variable.

In their study, Saidu and Gidado (2018) investigated the impact of the fraction of shares subscribed by managers on the financial performance of 40 industrial enterprises on the Nigeria Stock Exchange. 10 companies formed the sample size over the period from 2007 to 2016. The findings indicate that there exists an indirect correlation between the shares acquired by management and the financial performance of manufacturing enterprises due to the ability of managers to falsify annual reports for personal gains. A single segment of the market was considered. The current study considered all cross-listed companies operating within EAC region. The financial performance was measured on a standalone factor which is ROA. A single factor doesn't reveal all facets of performance within organizations. This study considered operational measures (ROA) and market measures (TOBIN Q).

A study conducted by Shan (2017) looked at the interactions of executive directors' shareholding, independence of board, and firm performance in Australian quoted firms from 2005 to 2015. The study, which included 9302 observations, found that there is an inverse association on the fraction of shares subscribed by management and board independence, and firm performance. This research was undertaken in emerging markets, and this research was carried out within EAC region. The study focused on one segment of the market. The different segments of the market were considered. This research considered the regulatory framework moderation effect on the association among the variables.

On a study conducted by Hoang, Nguyen, and Hu (2016), the researchers examined how the shareholding structure influenced the performance improvement of 76 manufacturing companies on the Ho Chi Minh Stock Exchange from 2007 to 2015. The researchers reported fraction of shares subscribed by managers and performance cubic interaction indicated by Tobin's Q. This study also confirmed an inverse association between state shareholding and performance. One segment of the market was considered. Different segments of the market were considered. The current study considered the regulatory framework moderation effect of the on the association among the variables. This research was undertaken in developed markets, and this research was carried out within EAC region.

2.3.4 Independent Auditors and Financial Performance

Recent research by Al-ahdal and Hashim (2021) revealed a noteworthy association on the caliber of external audits and the financial performance of non-monetary listed public enterprises on the National Stock Exchange. The study also emphasized the impact of audit committee qualities on this correlation. The financial performance was evaluated utilizing the market metric known as Tobin Q. Information was collected from 74 non-monetary corporations in India from 2014 to 2019. 74 companies formed the sample size. The study encompassed all financial data recorded at EAC region to mitigate or eradicate any potential sampling bias. This study specifically focused on a certain subgroup of firms that are publicly traded. The study included both monetary and non-monetary entities that are listed on the EAC region. This study utilized a short length of 5 years, whereas the research was prolonged to 10 years to increase the amount of data points. The random effect one-way panel data regression model was suboptimal for studying this dataset. This study utilized a panel data model to tackle the issue of both random and fixed effects that are present in the data.

Rahman, Meah, and Chaudhory (2019) conducted a study to investigate audit characteristics effect on the financial performance of manufacturing firms on the Dhaka Stock Exchange. The audit aspects include the external audit performed by the four largest accounting firms (BIG4), the frequency of formal gatherings conducted by the audit committee, and the dimensions of the audit committees. ROA, EPS, and profit margin were utilized as indicators to evaluate financial performance. From 2013 to 2017, a thorough examination was carried out on a combined total of 503 entities. The inquiry entailed doing a multivariate regression utilizing the pooled ordinary least squares (OLS) methodology. The findings indicated a robust and favorable association between the caliber of external audits performed by the four leading audit firms (BIG4) and both the quantity of audit committees and financial performance. An inverse correlation was identified between the occurrences of audit committee gatherings and financial performance. A total of 503 firms were included in this research study. All firms listed at EASCE were included in this analysis, which is noteworthy. The research was carried out in an emerging market, primarily focusing on developing countries within the EASCE region. The study lasted for a period of 5 years, during which a 10-year timeframe was used to analyze the interaction between external auditors and financial performance. This study specifically targeted a certain subset of manufacturing organizations, with a specific focus on analyzing all the companies registered on EASCE. The utilization of the pooled ordinary least squares (OLS) model was deemed inappropriate for this investigation. The current study utilized a panel data analysis model that integrates both cross-sectional and longitudinal data.

In their study, Al-Ani and Mohammed (2015) analyzed auditor quality on the financial performance of three sectors - industrial, finance, and service - in the Sultanate of Oman. This study examined 112 enterprises that were listed on the Muscat Securities Market from 2009 to 2013. The examination of audit quality was performed in the presence of auditors from

different audit firms. The assessment of financial performance relied on metrics such as ROA, ROE, and MFV. The findings demonstrated a distinct association between auditors affiliated with the Big 4 accounting firms and financial performance, as evaluated through ROE and market-to-book value (MFV). The study revealed that within the industrial sector, there exist connections between auditors affiliated with Big 4 firms and those affiliated with non-Big 4 enterprises, which in turn impact the financial performance, as quantified by the return on equity (ROE). The findings indicate that there is a substantial correlation between auditors from Big 4 and non-Big 4 corporations in the finance and service sector, and financial performance, as assessed by market-to-book value (MFV). A 5-year timeframe was not enough to sufficiently evaluate the influence of the auditor's quality on financial success. The current inquiry extended the timeframe to a period of 10 years. This study specifically examined the market areas that include all sectors of the economy for the cross-listed enterprises at EAC region.

2.3.5 Corporate Block-holding and Financial Performance

Abedin, Haque, Tanjina, and Kabir (2022) assessed corporate block holding on the financial performance of 180 publicly traded entities in Bangladesh between 2008 and 2018. This study reported that both domestic and international corporate block ownership have a direct effect on financial success, as assessed by ROA and Tobin's Q ratio. Further this study affirmed that the board size and independence in the corporate boards mediates the interactions between corporate block holding and financial performance. Only one segment of the market was considered, this research was based on 4 market segments within EAC regions. This study used the ordinary least squares which is not appropriate for longitudinal data, this research adopted panel multiple regression models.

A study by Tanui (2021) on the corporate block holding effect on the financial performance considering the moderation-mediation function of capital structure and corporate diversification for 35 cross-listed companies at NSE from 2003 to 2017 indicated that corporate block holding, and financial performance interaction is direct and material considering the effects of corporate diversification. This study focused on a specific area of the market, namely the NSE. It expanded the existing literature by encompassing all cross-listed businesses within the 4 EAC region.

The study conducted by Eluyela et al. (2020) analyzed panel data from 15 deposit-taking banks listed on the Securities platform in Nigeria from 2011 to 2018. It reported a strong and statistically significant correlation between the ownership of large blocks of shares by institutions and the financial performance of banks. This study exclusively focused on a single segment of the economy, specifically banks. This research considered all sectors of markets for cross-listed companies within EAC securities exchange.

Kajim (2020) carried out a study to investigate whether Institutional block holding affects the firm's performance based on 598 cross-listed companies in Germany from 2010 to 2018. The research affirmed that interaction between Institutional block holding, and performance is no-difference. This research was undertaken in Germany, a more advanced economy, this research was undertaken in developing countries within the EAC region.

Huang and Lu (2020) in their study on institutional block holders' effect on firm's performance variability using S & P 1500 firms from 1996 to 2006 found that firms with less variability in their performance have more institutional block holders due to reduced capital expenditures, investments on research and investments and reduced acquisition. In the study period is too

old; the current study considered more recent period 2013 to 2022. In this study, data was collected in the US market only, this research was based on different market segments within EAC markets. This research was undertaken in more developed markets while a current study was carried out in developing countries for easy replicability.

In their study, Panda and Leepsa (2018) analyzed how the involvement of institutional investors affects the financial performance of 361 entities in Indian National Stock Exchange. The researchers examined longitudinal data spanning from 2008-2009 to 2015-2016. The results suggest that financial performance is enhanced by resilient participation and the impact of global corporate investors. In contrast, pressure-based institutions is detrimental to the financial performance of the organization. This research was undertaken in a mode developed economy; this research was carried out in EAC countries which are among the developing countries. This research was carried out in one market segment, this study considered different capital markets operating within EAC with different operating environments.

2.3.6 Product Market Dominance and Financial Performance

Shin and Lee (2023) examined the impact of product market dominance on investment decisions of Korean-listed enterprises between 2001 and 2020. They reported a clear connection of product market dominance and performance of entities, especially for enterprises operating in the high-tech sector of the market. This implies that intense product competition motivates corporations to adopt competitive tactics that enhance efficiency. The compliance laws effect on the correlations between the variables is not considered in this study. This study's primary focus was on wealthy nations, in contrast to the present study which was conducted in underdeveloped countries. This study was conducted within a specific market niche, specifically focusing on the EAC region.

A study on product market dominance and performance conducted by (Liu et al., 2022) in China Stock Markets based on 1668 observations from 2016 to 2020 analyzed reported a direct interaction of market competition and performance advocating that strong product dominance plays a significant role in realizing better performance in China. This research was undertaken in more developed markets, this research was carried out in developing markets within EAC region. This study was based on a 5-year period which doesn't permit the researcher to observe the long-run association between the variables, however the current study considered a 10-year period.

Thu and Minh (2022) carried out a study using state shareholding as a moderation variable in product competition and companies value measured by ROA and Tobin Q from 2011 to 2019 using five hundred and fifty-five (555) firms quoted in Vietnam's stock market. The findings found a inverse interaction between product market dominance and a firm's values while the firms with state shareholding had a stronger association between the variables. This research was undertaken in one segment of the market, this study was undertaken in different segments of the markets within EAC. ROA was used to indicate companies value together with Tobin Q but instead ROA and TOBIN Q formed key indicators of performance.

Babar and Habib (2022) examined whether operating leverage is affected by product market dominance based on international companies in 46 countries between 1985 and 2019. Product market dominance was measured using the Hirschman - Herfindahl index and the industry revised Price Cost Margins. The findings show that product market dominance is strongly correlated to the company's strategy to grow revenue to increase companies' profit (operating leverage). This research was undertaken in developed markets, this research was carried out in developed markets.

In their study, Mubeen et al. (2022) analyzed the correlation between product market dominance and performance in Chinese publicly traded enterprises. The researchers utilized a panel data set comprising 2502 firms spanning the years 2012 to 2017. The results indicated that the company's success is directly impacted by its market dominance in the product sector. This study was conducted over a span of 5 years, during which a 10-year period was examined to observe various correlations. This research focused exclusively on a specific segment of the developed market, namely all cross-listed businesses in developing countries within the East African Community (EAC) region.

Königsgruber et al. (2021) conducted a study on product market dominance and firm's disclosure of cross-segment differences in performance based on 5964 firms incorporated in the United States from 1977 to 2018 with reported data in the Compustat Fundamentals Annual database. The study reported that there exist inverse interactions between potential product market dominance and disclosure of cross-segment performance while direct interaction exists between existing product competition and cross-segment performance disclosures. This research was undertaken in developed markets, this research was carried out in developing markets. This research was undertaken in different segments with the same markets, this study was undertaken in different segments in different markets. This study was based on non-listed firms, this research focused on cross-listed firms to enhance the quality of the data.

2.3.7 Corporate Governance, Regulatory Framework and Financial Performance

Daidai and Tamnine (2022) undertook a study on CG code influence on the management practice of quoted firms in Morrocco using panel sample data of 54 non-monetary companies from 2013 to 2022 found that publicly quoted firms have greatly adhered to the governance code. Further, the results affirmed that there exists an inverse interaction between code

compliance, the evolution of codes, and accounting and earnings management while governance code compliance and quality of reporting recorded a positive association. This study was based on one sector of the market non-monetary companies, this work was based on both financial and non-monetary companies cross-listed within EAC markets.

Tariq, Ejaz and Bashir (2022) studied corporate governance codes impact based on 11 economies selected based on GDP growth rate in Asia and United Nations corporate governance guidelines and compliance level of 15 non-monetary companies in each country with set guidelines. The findings indicated that Pakistan and the Philippines corporate governance codes have higher percentage of adherence to the UN corporate governance guidelines while India and China are ranked low on based on scores compliance. Malaysian, Indonesian, Indian, and Chinese recorded the highest compliance towards the United Nations requirements on CG compared to their national corporate governance codes. This research was undertaken in emerging economies, this research was carried out in developing countries within EAC markets. This study was based on a sample selected on GDP growth rate; this research included all cross-listed companies within EAC region.

A study by Aluchna and Kuszewski (2021) on corporate governance best practices compliance using a time series sample of 126 firms cross-quoted at the Warsaw Stock Exchange from 2006 to 2019. The findings show an increasing number of company compliance which contributes to increased compliance quality and increasing length of conformity to corporate governance codes. This study used time series data, this research used panel data to expand data points and observe the changes over time. This study was based on a sample that is pruned to sampling errors; this research focused on all cross-listed companies trading at EAC region. This research

was undertaken in one segment of the market, this research was based on an EAC trading block comprising 4 listed securities.

Recently, a study conducted by Aluchna and Kuszewski (2021), researchers analyzed the correlation between the implementation of governance standards and the financial worth of a company. The study examined the optimal methods employed by the board and studied panel data from 155 cross-quoted on the Warsaw Stock Exchange over the period from 2006 to 2015. The findings found a detrimental correlation between corporate governance (CG) and company value. The data is regarded as a sample obtained from a certain market sector. Nevertheless, the present analysis utilized all the companies that were cross listed inside the EAC region.

Waweru and Prot (2018) on their study in CG compliance and accruals basis of managing earnings for the companies quoted in Kenya and Tanzania based on 48 cross-listed companies on the NSE and DSE from 2005 to 2014 with a total of 480 companies' observations. The findings indicated that discretional accruals average about 11.3% while audit quality and discretional accruals are negatively and significantly related. Further, executive director's remuneration, board independence, director's shared shareholding, and discretional accruals are positively associate suggesting that CG compliance doesn't constrain earning management in Kenya and Tanzania.

A study by Outa, Eisenberg, and Ozili (2017) to examine whether corporate governance code constrains earning management among the non-monetary companies in Kenya based on panel data of 338 firms from 2005 to 2014 found that the discretional accruals and corporate governance code interactions is not significant. The study further reported that voluntary corporate governance code compliance doesn't constrain earning management. This study was

based on one sector in Kenya, this research was carried out in all sectors for the companies cross-listed within EAC countries.

2.4 Control Variables

A control variable is a variable that is held constant or limited when carrying out research that is of no interest to the study, but it could contribute to variation in the outcomes. Company size is an important control variable which is related to companies past costs, increased profits, and taking necessary steps to streamline operations (Dean et al, 1998). Bigger firms give them easy access to opportunities in investment due to their efficiency which is presumed to exist in larger firms compared to smaller ones (Amato & Wilder, 1985). Burke et.al (1986) in their study argued that bigger companies embrace corporate governance principles more often than small companies thus attracting attention from potential stakeholders. Studies by Ahmed et al. (2011), Charumathi (2011), Idris et. al (2011), Malik (2011), Mehari and Aemro (2013), Teklit and Jasmindeep (2017) reported that size of the firm relates to companies' financial performance.

The age of a firm indicated by the period that a company has been in operation is a key financial performance indicator. Previous research indicates that profitability, failure, and growth variability decrease with period (Evans, 1987; Yasuda, 2005). More sustainable entities enjoys cheap financing, attract more investors and experienced personnel, and have a low risk which builds their corporate reputation and largely contributes greatly to superior performance (Malik, 2011; Bates et al., 2008; Pervan et al., 2012; Liargovas & Skandalis, 2008). To reduce cross-listed companys' possibility of omitted variable bias (Duran et al., 2019). This study introduced country-level differences by creating a series of dummy variables. The CG mechanisms and financial performance interactions were tested using entities size computed

by the logh of investment value (Abatecola et al., 2012), age of the firm and country-specific differences as control variables.

2.5 Summary of the Research Gap

The extant research provides conflicting results on the effect of corporate governance and financial performance. The correlation of independent directors and financial performance has been the subject of research. Some studies, such as those by Arora & Soni (2023), Niskanen (2012), and Mihail and Micu (2021), have found a direct correlation between these variables. On the other hand, other studies, including those by Mishra (2023), Onong, Nasih, Anshori & Harymawan (2022), Al-Saidi (2021), and Nguyen, Evans & Meiting (2017), have found an inverse association. Numerous studies demonstrate a strong connection of financial success and the compensation of its directors. (Rehman et al., 2021; Soni & Singh, 2020; Rasoava, 2019) while (Sharmin et al., 2020 & Md Zain, 2019) reported a statistically significant and negative interaction between the variables. Some studies (Saidu & Gidado, 2018; Shan, 2017 & Sani, 2020) reported that proportion of ownership by managers and financial performance interactions is indirect while other studies by (Ogabo, Ogar & Nuipoko, 2021) advocate for a direct interaction between the variables.

Some studies on independent auditors and financial performance support statistically significant and positive results (Al-ahdal and Hashim, 2021; Rahman, Meah, and Chaudhory, 2019 & Meah, Sen & Ali, 2021) while other studies provide mixed results such as those (Al-Ani & Mohammed, 2015). Many studies on corporate block holding and financial performance support a direct association between the variables (Abedin et al., 2022; Tanui, 2021; Huang & Lu, 2020; Panda & Leepsa, 2018; Eluyela et al., 2020) while Kajim (2020) reported a negative association. Studies carried out by (Babar & Habib, 2022; Mubeen et al., 2022; Shin & Lee, 2023; Liu et al., 2020) support statistically positive interaction between product market

dominance and firms' performance while (Königsgruber et al., 2021; Thu & Minh, 2022) reported statistically negative association between the variables. Regulatory framework and financial performance interactions are mixed with those (Daidai & Tamnine, 2022; Waweru & Prot, 2018; Outa, Eisenberg & Ozili, 2017 reporting inverse interactions between the variables while (Aluchna & Kuszewski, 2021) argued that there is a direct interaction.

Multiple research deficiencies were found by analyzing and summarizing the empirical studies. The primary research gap lies in the limited amount of research done on the connection of financial performance and external company governance procedures. Most of the studies were done on developed and stable nations with strong regulatory frameworks, well-established economies, and organized marketplaces. On the other hand, developing nations that are still in the process of developing, such as Kenya, Uganda, Tanzania, Rwanda, and Burundi, have a dearth of research. For every company registered on the East African Capital Markets, the mechanisms of both Internal and External CG were investigated. The second research gap pertains to the utilization of exceedingly small sample sizes in certain studies, hence conflicting with conclusions derived from larger samples. This study utilized longitudinal data from all cross-listed companies at EAC region for a period of 10 years.

An additional research limitation is that previous studies focused on a single industry or area of the economy, while others only examined a very little time frame of approximately five years on average. This analysis encompassed all industries functioning inside the EAC region framework for a span of 10 years, from 2013 to 2022. The fourth study gap pertains to the insufficient recognition by researchers of the connection between financial performance and ECG processes. Rather, a large body of research has examined how internal CG mechanisms affect financial performance. The ICG and ECG processes were both studied in this study. The

last research gap concerns the widespread application of a single component to measure past financial performance. This runs counter to study results since financial performance responds differently to different financial performance metrics. The ROA financial metric and the Tobin's Q were used in this study to evaluate financial performance. The impact of the moderating variable on the links between corporate governance (CG) and financial performance was not included in previous studies, which represents the sixth research gap. By evaluating the connections between the regulatory framework and the linkages between CG and financial performance, this research investigates the effects of a moderating variable.

Table 2. 1 Summary of the Literature Review and Research Gaps

Author	Objectives	Key findings	Limitations/Research Gaps	Responding to the gap
Shin and Lee (2023)	Product market dominance effect on firm's investment of Korean quoted from 2001 to 2020.	— There was a favorable correlation found between a company's performance and its dominance in the product market.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed market. — The study considered external corporate governance only	— This study was carried out in developing countries. — RC as a moderator was considered. — This study will consider both internal and external CGM
Abedin, Haque, Tanjina and Kabir (2022)	Corporate investment (ownership) on 180 Bangladeshi listed firms' financial performance between 2008 and 2018	— The study verified that institutional shareholding has a direct impact on the financial performance as measured by ROA and Tobin Q.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed economy. — The study considered external corporate governance only	— This study was carried out in developing countries. — RC as a moderator was considered. — This study will consider both internal and external CGM
Tariq, Ejaz and Bashir (2022)	An exploratory study based on corporate governance codes based on 11 economies in Asia and United Nations corporate governance guidelines and compliance	— Pakistan and Philippines corporate governance codes have higher rate of adherence to the UN CG regulations while India and China have the lowest compliance score.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in developed economy	— This study was carried out in developing countries. — RC as a moderator was considered.
Liu et al., 2022	Product market dominance effect and firm performance in China Stock Markets based on 1668 observations from 2016 to 2020	— Described how a firm's performance and market competition are directly and significantly impacted.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed economy. — The study was related to one segment of the market. — The study considered external corporate governance only	— This study was carried out in developing countries. — RC as a moderator was considered. — All firms listed at EAC region was considered. — This study will consider both internal and external CGM
Mubeen et al. (2022)	Dominance of a product market and company success in Chinese listed firms between 2012 and 2017	— Reported that product market dominance positively and significantly affects firm's performance	— This study was considered a short period of 6 years. — The study was related to one segment of the market	— This study considered 10-year period. — All firm's listed at EAC region was considered
Babar and Habib (2022)	Effect of product market dominance on operating leverage based on large	— Reported that product market dominance is directly correlated with the company's	— This study considered a very long period subject to co-integration.	— This study considered 10-year period.

	companies from 46 countries between 1985 and 2019.	sensitivity of revenues to profits (operating leverage).	— Moderating effect of regulatory compliance not considered	— RC as a moderator was considered.
Daidai & Tamnine (2022)	To ascertain the impact of the CG code on the management style of publicly traded companies in Morocco between 2013 and 2022	— There exists a inverse interactions between code compliance, the evolution of codes, and accounting and earnings management.	— Moderating effect of regulatory compliance not considered. — The study was related to one segment of the market	— RC as a moderator was considered. — All firms listed at EAC region was considered
Königsgruber et al. (2021)	Product market dominance and firm's disclosure of cross-segment differences in performance in United States from 1977 to 2018	— Reported an inverse interaction between potential product market dominance and disclosure of cross-segment performance	— Moderating effect of regulatory compliance not considered. — This study considered a very long period subject to co-integration	— RC as a moderator was considered. — This study considered 10-year period.
Tanui (2021)	Impact of corporate ownership on the NSE-quoted companies' financial performance between 2003 and 2017	— Stated that institutional ownership had a direct impact on the company's financial results.	— Moderating effect of regulatory compliance not considered. — The study was related to one segment of the market. — It was based on a sample	— RC as a moderator was considered. — All firms listed at EAC region were considered.
Elgattani and Hussainey (2021)	Effect of the Auditing and Accounting firms on the Islamic commercial banks (IBs) performance	— Using ROA and ROE as proxies, there is indirect connection on Islamic banks' performance and AAOIFI governance reporting.	— This study focused on Islamic banks only which are financial institutions. — This research was undertaken in 8 countries with a study period of three years.	— All firms listed at EAC region were considered. — This study considered a larger period particularly 10 years
Kajim (2020)	To look into the connections on institutional ownership and a company's performance using a sample of 598 German cross-listed businesses between 2010 and 2018.	— There are no relationships between institutional ownership and a company's success.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed economy. — It was based on standalone factor	— RC as a moderator was considered. — All firms listed at EAC region were considered. — It was based on ICG & ECG
Al-ahdal and Hashim (2021)	Analysing the impact of independent audit committee characteristics and the calibre of external audits on the performance of non-monetary public quoted on the National Stock Exchange	— It was discovered that there is a strong and direct correlation between the financial performance, the independent audit committee, and the quality of the external audit..	— The financial performance indicator was market measure Tobin Q only. — The data was collected from 74 non-monetary firms from 2014 to 2019 in India.	— The current study considered all cross-listed companies at EAC region. — A panel data regression model was used.

			— A random effect one-way panel data model was used. — Period of the study was short	— The current study considered 10 years period. — RC as a moderator was considered
Ogabo, Ogar and Nuipoko (2021)	Examined the impact of shareholding on a company's performance using longitudinal data gathered from 2008 to 2018 for 48 FTSE businesses in the United Kingdom.	— The study found a positive and substantial relationship between the percentage of shares subscribed by managers and the success of the firms.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed economy. — The study was related to one segment of the market	— RC as a moderator was considered. — All cross-listed companies at EAC region was considered.
Rehman et al. (2021)	Executive remuneration, CG, and corporate performance based on 860 non-monetary firms quoted in Chinese stock exchanges from 2004 to 2018	— The study reported a direct interaction between executive remuneration and profitability	— Moderating effect of regulatory compliance not considered. — The data was collected from 48 non-monetary firms. — This study considered a short period of 5 years. — This study considered stand-alone CG factor	— RC as a moderator was considered. — The current study considered all cross-listed companies at EAC region. — This study considered 10 years. — This study considered both ICG & ECG mechanisms
Sharmin et al., 2020	Director's incentives and financial performance using remuneration to directors as a proxy 2011 to 2017	— Reported that there exist inverse interactions between executive remuneration and firm's performance	— Moderating effect of regulatory compliance not considered. — This study considered only 7 years. — This study considered stand-alone CG factor	— This study considered a 10-year period. — RC as a moderator was considered. — This study considered both ICG & ECG mechanisms
Soni and Singh (2020)	To investigate the short and long run association between remuneration to directors and firm performance based 30 listed companies in India from 2002 to 2019	— Reported tremendous increase in director's remuneration for the period with significant change in remuneration composition with fixed components increasing for the last five years and variable components declining	— Moderating effect of regulatory compliance not considered. — This research was undertaken in a developed economy. — This study considered stand-alone CG factor	— RC as a moderator was considered. — The current study considered all cross-listed companies at EAC region. — This study considered both ICG & ECG mechanisms

Sani, 2020	Managers' share subscription percentage, and the financial results of Nigerian listed firms based on panel balanced data of 71 quoted companies from 2012 to 2018	— Reported inverse interactions between fraction of shares subscribed by managers and firm's performance.	— Moderating effect of regulatory compliance not considered. — This research was undertaken in one segment of the market. — This study considered a short period of 5 years	— RC as a moderator was considered. — The current study considered all cross-listed companies at EAC region. — This study considered 10 years
Md Zain, 2019	Remuneration to directors and board structures impact on firm's performance 2013 to 2017	— There is a documented inverse relationship between the performance of the company, board arrangements, and director compensation.	— Moderating effect of regulatory compliance not considered. — This study considered a short period of 5 years	— RC as a moderator was considered. — This study considered 10-year period
Rahman, Meah and Chaudhory (2019)	To analyze the effects of audit attributes on the FP of the quoted manufacturing companies in Dhaka Stock Exchange.	— The size of audit committees and the quality of external audits (BIG4) have a substantial and direct connection with financial performance..	— 503 firms formed the study sample. — Moderating effect of regulatory compliance not considered. — Study period was very short. — Only one market sector considered	— The current study considered all firms listed at EASCE. — The current study used a 10-years. — The current study considered all cross-listed companies at EAC region. — RC as a moderator was considered
Damane (2019).	To establish a connection between Lesotho's financial success, company value, and regional regulatory compliance	— Regulatory compliance contributes to improvement in firm's liquidity evidenced by statistically positive abnormal returns.	— This study considered only 2 cross-listed companies in 2015 and 2016 in Johannesburg. — The study period was relatively short. — Moderating effect of regulatory compliance not considered	— The current study considered all firms cross-listed within EAC region. — Study period of 10 years was used. — RC as a moderator was considered
Rasoava (2019)	Investigated executive directors pay and performance non-linear interactions targeting all listed companies in JSE	— The results revealed a direct interaction between remuneration to directors and ROE	— Only one market sector considered. — Moderating effect of regulatory compliance not considered	— RC as a moderator was considered. — The current study considered all firms listed at EASCE.
Saidu and Gidado (2018)	Percentage of managers' subscriptions to shares based on the 40 listed companies' financial	— This study documented that there is an indirect connection between managers'	— Only one market sector considered.	— RC as a moderator was considered.

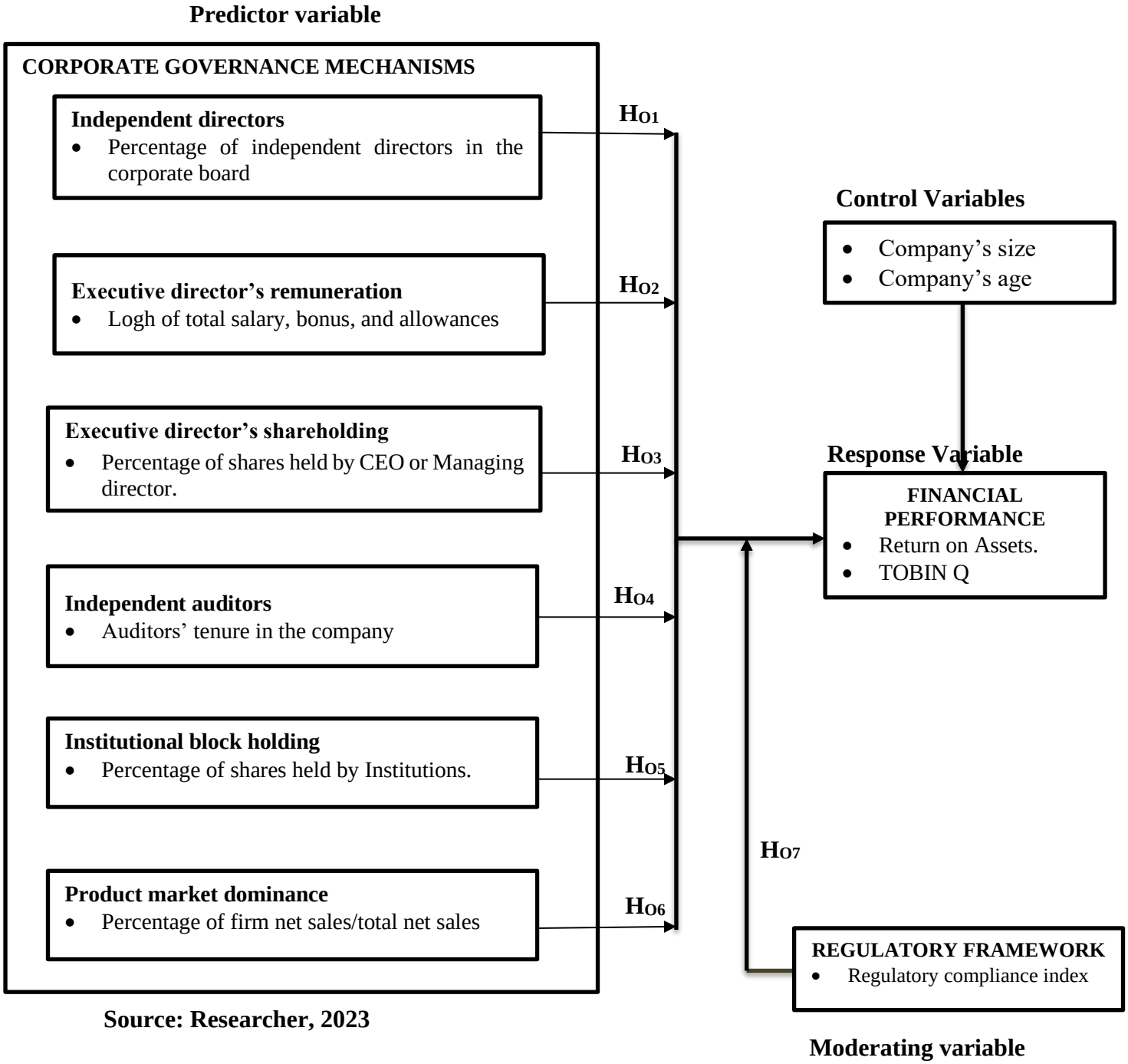
	performance on the Nigeria Stock Exchange between 2007 and 2016	share subscriptions and manufacturing enterprises' financial performance.	— Moderating effect of regulatory compliance not considered. — Sample size was too small	— The current study considered all firms listed at EASCE.
Panda & Leepsa (2018)	The impact of institutional investors on the financial performance of 361 Indian listed firms	— The firm's financial performance is negatively impacted by pressure-sensitive institutions, although pressure-resistant engagement and global shareholders have a direct impact.	— Moderating effect of regulatory compliance not considered. — Only one market sector considered. — The study was based on stand-alone factor	— RC as a moderator was considered. — The current study considered all firms cross-listed within EAC region. — Both ICG & ECG were considered
Palaniappan (2017)	To determine how the qualities of the board members affect the 275 Indian manufacturing companies' financial performance.	— Using Tobin's Q, ROA, and ROE as proxies, it was discovered that there was a negative correlation between the board's size and performance.	— The study focused on selected board characteristics and there were no criteria for selection provided. — This research was undertaken in Indian manufacturing firms sampling 225 firms for a period of 5 years. — Regulatory compliance is not considered	— The current research used 10 years' study period. — It considered both financial and non-monetary institutions. — Both ICG & ECG factors was considered — Moderating effect of regulatory compliance was considered
Malik and Makhdoom (2016)	Effects of CG Mechanisms on the financial results of 500 companies globally	— CG and performance were found to be strongly related while few board members contributes to better financial performance.	— This research was undertaken using 500 global companies. — It was not based on financial performance. — Moderating effect of regulatory compliance not considered	— The current research was carried out in East African countries. — Both ICG & ECG factors was considered — RC as a moderator was considered
Al-Ani and Mohammed (2015)	To elaborate on the auditor quality effects on the financial performance in three sectors such as industrial, finance, and service in Sultanate of Oman.	— Big/non-Big 4 auditors and the financial performance (ROE and MFV) of businesses in the finance, industrial, and service sectors are significantly and favorably correlated.	— The period of 5 years was not good enough to observe the effects of auditor's quality on financial performance. — This study was related to specific sectors in Sultanate of Oman — Moderating effect of regulatory compliance not considered	— The current study considered 10 years period. — All sectors in the economy for the cross-listed companies at EAC region was considered. — RC as a moderator was considered

2.6 Conceptual Framework

Figure 2.1 shows conceptual model used to analyze the connectedness between external and internal CG mechanisms, as indicated by the company's dominance in the product market, the tenure of independent auditors, and the percentage of institutional holdings. The number of independent directors on the corporate board, the salary of executive directors, and the fraction of shares held by executive directors all serve as indicators of the internal procedures. The model also employs two more indicators to assess financial success that's Tobin's Q and ROA.

The regulatory compliance index served as the moderator variable in the analysis of how CG mechanisms affected financial performance. The company's age and size were regarded as control variables. Although these factors have an impact on the interactions between the response variable and the explanatory study variables, the researcher is not helped by them. The size of the corporation was determined by taking the log of its investments and age by the number of years since its formation. Based on empirical research, this study suggested that there is no correlation between independent variables and financial performance.

Figure 2.1: Conceptual Framework



Source: Researcher, 2023

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the logical framework employed during the investigation. The research methodology was structured into the different sections as follows: research design, research philosophy, development of an empirical model, measurement and operationalization of study variables, definition of population parameters, selection of sample and sample size, data collection procedure, data analysis and presentation, testing for random and fixed effects, and testing for significance.

3.2 Research Philosophy

The field of research philosophy pertains to the examination of the origins, characteristics, and establishment of beliefs and assumptions during the process of generating or advancing knowledge. The concept pertains to the methodology employed in the examination and evaluation of a given phenomenon (Saunders, Lewis, & Thornhill, 2012). Epistemology and positivism represent two prominent research perspectives within the academic realm. The positivistic research philosophy is grounded in the belief that empirical knowledge may be acquired by direct observation and sensory experiences, such as measurement. The researcher's role in this method is restricted to gathering and analyzing data from an impartial, independent standpoint. This method is predominantly employed in quantitative research. It is assumed that the comprehension of phenomena and other noteworthy occurrences within a given context should be expressed neutrally, objectively, externally, and independent of the researcher (Bryman & Bell, 2003). Epistemology deals with the source of knowledge, the researcher studies information and defines what constitutes and what doesn’t constitute knowledge. It’s more preferred in qualitative research to build a theory. Its main limitation is the lack of replicability or generalizability (Kothari, 2004).

This study adopted positivistic research philosophy. This philosophy depends majorly on quantifiable observations that involve the application of scientific tools. A study by Crowther and Lancaster (2008) suggested that positivistic studies are usually associated with deductive reasoning where the researcher is allowed to concentrate on the facts. As suggested by Orlikowski and Baroudi (1991) that positivistic is used where there are hypothesis testing, measurable variables, and general application of findings from the sample to the entire parameters in the population. This study concentrated on hypothesis development from theory, collecting and testing it empirically to affirm the hypothesis. Based on these methodological arguments, this study was based on quantitative research methods to draw inferences from the data collected, conversion of data to numerical forms, and application of statistical tools to define the existing associations among the variables and test hypothesis using measurable variables.

3.3 Research Design

It is the plan structure concerned with obtaining answers to research questions and controlling variance (Kerlinger, 1973). According to Trochim (2005), the research design is the cement holding the study parts all-together by showing how different parts of the research thesis integrate to solve the research problem by answering research questions. Lewis and Thornhil (2009) define research design as the general guide that leads the researcher(s) in answering the research questions.

To explain CG mechanisms and the financial performance interactions of cross-quoted firms in the EAC region, this study used an explanatory-nonexperimental research design. Saunders et.al, (2012) & Robson (2002), the explanatory research design is used to investigate whether a causal association exists between two or more variables. It also involves studying the present situation to explain the associations among variables. This research design was applicable in investigating CG mechanisms and financial performance interactions. This design is used where there is no direct control or influence of independent variables

(Kerlinger & Lee, 2000). It is also applicable in a situation where the researcher doesn't have the power to manipulate independent variables when their manifestations have already occurred.

3.4 Empirical Model

This study modified the model previously used by Saeedi and Mahmoodi (2011) to analyze the CG systems and the financial performance interactions of cross-listed enterprises in the EAC region, as indicated by the equation below. To determine interactions of CG procedures and the financial results of cross-listed companies in the EAC region, a longitudinal data model was used. Using the gathered data, the linear panel data model was computed in accordance with Greene's (2008) methodology. The panel data analysis paradigm is utilized to address issues encountered when working with cross-sectional data or time series data, specifically with regards to unobservable heterogeneity. Panel data enables researchers to use a larger sample size, hence minimizing sampling error, as it incorporates longitudinal data. The presence of a substantial data collection amplifies the variability of the data and diminishes the occurrence of collinearity among the variables. Panel data models facilitate the identification and estimation of effects that are not discernible when solely relying on cross-sectional or time series data. The present investigation examined nine (9) enterprises that were cross listed in the EAC region. Initially, the sample size was too small for analysis when utilizing cross-sectional data alone. However, the study was able to raise the sample size to 90 by using longitudinal data for 10 years. This increase in sample size met the asymptotic requirements (Gujarati, 2003).

3.4.1 General Model

The general empirical model was:

$FP_{it} = \alpha + \beta_1 X_{it} + E_{it}$……...(3.1a)

This equation was transformed by defining $\boldsymbol{E_{it} = V_i + U_{it}}$ as shown below

$FP_{it} = \alpha + \beta_1 X_{it} + V_i + U_{it}$ ……..……(3.1b)

Where:

FP_{it} is the financial performance (response or dependent variable) of the company *i* at time *t, i* represents companies (1… 9 cross-listed) while t is the time t = 2013… 2022. X_{it} is the independent variable, β_1 is the expected value of coefficient, α is the constant term, V_i *is* the heterogeneity effects, U_{it} denotes idiosyncratic disturbances and ε_{it} is the residual errors.

Equation 3.1 was extended to develop equations 3.2 & 3.3 to estimate coefficients that was used in examining hypotheses one to six investigating CG mechanisms and financial performance interactions as follows:

$$FPi_1t = \alpha + \beta_1 ID_{it} + \beta_2 EDR_{it} + \beta_3 EDS_{it} + \beta_4 IA_{it} + \beta_5 CBH_{it} + \beta_6 PMD_{it} + \beta_7 Ln\, FS_{it} + \beta_8 AGF_{it} + + E_{it} \ldots (3.2)$$

$$FPi_2t = \alpha + \beta_1 ID_{it} + \beta_2 EDR_{it} + \beta_3 EDS_{it} + \beta_4 IA_{it} + \beta_5 CBH_{it} + \beta_6 PMD_{it} + \beta_7 Ln\, FS_{it} + \beta_8 AGF_{it} + + E_{it} \ldots (3.3)$$

Where:

FPi_1t = Financial performance measure of the company = Return on Asset at time *t*

FPi_2t = Financial performance measure of the company = TOBIN Q at time *t*

α = Constant or intercept, ID_{it} = Independent directors of the company i at time t, EDR_{it} = Executive director's remuneration in the company *i* at time *t,* EDS_{it} = Executive director's shareholding in the company *i* at time *t,* IA_{it} = Independent auditors of the company i at time t, CBH_{it} = Corporate block holding of the company *i* at time *t,* PMD_{it} = product market dominance of the company *i* at time *t, Ln*FS_{it} =Log of total assets of the company *i* at time *t,* AGF_{it} =Age of the company *i* at time *t,* β^s = Coefficients of independent variables and E_{it} = Composite error terms.

3.4.2 Moderation effect model

The moderation effect is the result of another variable, referred to as the moderator variable, having an impact on the correlation between the predictor and response variable. Whisman and McClelland's (2005)

moderation test assessed the regulatory framework moderation effect on CG mechanisms and financial performance interactions. In step one the regulatory compliance index was entered as a predictor or explanatory variable and in step 2 as a moderator variable.

This study specified equations 3.4, 3.5, 3.6 & 3.7 as follows:

STEP 1: Regulatory compliance index as an independent variable

$$FPi_1t = \alpha + \beta_1ID_{it} + \beta_2EDR_{it} + \beta_3EDS_{it} + \beta_4IA_{it} + \beta_5CBH_{it} + \beta_6PMD_{it} + \beta_7 Ln\ FS_{it} + \beta_8AGF_{it} + \beta_9RCI_{it} + E_{it} \quad (3.4)$$

$$FPi_2t = \alpha + \beta_1ID_{it} + \beta_2EDR_{it} + \beta_3EDS_{it} + \beta_4IA_{it} + \beta_5CBH_{it} + \beta_6PMD_{it} + \beta_7 Ln\ FS_{it} + \beta_8AGF_{it} + \beta_9RCI_{it} + E_{it} \quad (3.5)$$

STEP 2: Regulatory compliance index as a moderator variable

$$FPi_1t = \alpha + \beta_1ID_{it} + \beta_2EDR_{it} + \beta_3EDS_{it} + \beta_4IA_{it} + \beta_5CBH_{it} + \beta_6PMD_{it} + \beta_7 Ln\ FS_{it} + \beta_8AGF_{it} + \beta_9RCI_{it} + \beta_{10}ID_{it} * RCI_{it} + \beta_{11}EDR_{it} * RCI_{it} + \beta_{12}EDS_{it} * RCI_{it} + \beta_{13}IA_{it} * RCI_{it} + \beta_{14}CBH_{it} * RCI_{it} + \beta_{15}PMD_{it} * RCI_{it} + \beta_{16} Ln\ FS_{it} * RCI_{it} + \beta_{17}AGF_{it} * RCI_{it} + E_{it} \quad (3.6)$$

$$FPi_2t = \alpha + \beta_1ID_{it} + \beta_2EDR_{it} + \beta_3EDS_{it} + \beta_4IA_{it} + \beta_5CBH_{it} + \beta_6PMD_{it} + \beta_7 Ln\ FS_{it} + \beta_8AGF_{it} + \beta_9RCI_{it} + \beta_{10}ID_{it} * RCI_{it} + \beta_{11}EDR_{it} * RCI_{it} + \beta_{12}EDS_{it} * RCI_{it} + \beta_{13}IA_{it} * RCI_{it} + \beta_{14}CBH_{it} * RCI_{it} + \beta_{15}PMD_{it} * RCI_{it} + \beta_{16} Ln\ FS_{it} * RCI_{it} + \beta_{17}AGF_{it} * RCI_{it} + E_{it} \quad (3.7)$$

Where:

FPi_1t = Financial performance measure of the company = Return on Assets at time *t*
FPi_2t = Financial performance measure of the company = TOBIN Q at time *t*
RCI_{it} = Regulatory compliance index of the company i, at time *t*

3.4.3 Moderation Effect Decision-Making Procedure

The process that was followed to interpret the moderating variable is displayed in Table 3.1 below. F-statistics were used in two (2) phases to examine the moderating effect at a 5% significance level.

Table 3. 1 Moderation test decision criteria

Test Analysis	Results	Conclusions
Regulatory compliance index as an independent variable		
STEP 1-Equation 3.4 & 3.5	Significant coefficient of the regulatory compliance index variable	The regulatory compliance index is an explanatory variable.
	Insignificant coefficient of the regulatory compliance index variable	Regulatory compliance index moderate interactions between CG mechanisms and financial performance
Regulatory compliance index as a moderator variable		
STEP 2-Equation 3.6 & 3.7	Coefficient of the regulatory compliance index variable is significant	The correlation of CG mechanisms and financial performance is moderated by the regulatory compliance index.
	Coefficient of the regulatory compliance index variable is insignificant	The correlation of CG mechanisms and financial performance is not moderated by the regulatory compliance index.
	Interaction terms coefficient is significant	Interaction effect of RCI is significant
	Interaction terms coefficient is Insignificant	Interaction effect of RCI is insignificant

Source: Research, 2023

3.5 Operationalization and Measurement of Variables

The definition of operational terms, measurements, and research indicators that were utilised to calculate the predicted values are displayed in Table 3.2. Other scholars have utilised these measures extensively in their studies.

Table 3. 2 Operationalization and Measurement of Study Variables

Dependent Variable: Financial Performance				
Variable	**Operationalisation**	**Levels of measurement**	**Variable Measurement**	**Hypothesised direction**
Financial Performance	Return on Assets (ROA)	Ratio scale	Net income to total assets	Positive/Negative
	TOBIN Q	Ratio scale	Market value of equity + total liabilities to total Assets	Positive/Negative
Independent Variable: Corporate Governance Control Mechanisms				
Corporate Governance Control Mechanisms	Independent directors	Ratio scale	Percentage of independent directors to the total directors	Positive/Negative
	Executive director's remuneration	Ratio scale	Natural log of director's total salary, bonus, and allowances	Positive/Negative
	Executive director's shareholding	Ratio scale	Percentage of shares held by CEO or managing director	Positive/Negative
	Independent Auditors	Ratio scale	Number of years that audit firm has been engaged by the company	Positive/Negative
	Corporate block holding	Ratio scale	Percentage of institutional shares in the company	Positive/Negative
	Product market dominance	Ratio scale	Percentage firm net sales/total net sales	Positive/Negative
Moderating Variable: Regulatory Framework				
Regulatory Framework	Regulatory Compliance	Ratio scale	Regulatory compliance Index	Positive/Negative
Control Variables				
	Company's size	Ratio scale	Logh of companies' total assets	Positive/Negative
	Company's age	Interval	Number of years in operation	Positive/Negative

Source: Researcher, 2023

3.6 Target Population

Population, as expressed by Ngechu (2004), means collection of individuals, entities, and services, or groups of objects or occurrences that are the subject of study. The target population consisted of all 11 companies registered or cross-listed in several stock or securities exchanges in the East African Community Region as of December 31, 2022. The following table illustrates the allocation of cross-listed firms.

Table 3. 3 Distribution of the Target Population

Securities/Stock Exchange	Cross-listed firms	Distribution Percentages
Nairobi Securities Exchange (Kenya)	9	83.33%
Uganda Securities Exchange (Uganda)	1	8.33%
Rwanda Stock Exchange (Rwanda)	1	8.33%
Dare Salaam Securities Exchange (Tanzania)	0	0%
Total	**11**	**100%**

Source: CMA & CMSA, 2023

Table 3.3 shows the distribution of the target population which comprises of all cross-listed companies in EAC region classified according to the market where the companies are registered. That's 83.33% of cross-listed companies are registered and based in Kenya, 8.33% of cross-listed companies are registered and based in Uganda, 8.33% of cross-listed companies are registered and based in Rwanda and 0% of the cross-listed companies are registered and based in Tanzania. The company's distribution by market segment indicates that majority are in the Banking sector (33.33%), Commercial and services (25%), manufacturing and allied (16.67%) with few companies from Insurance, Energy and petroleum, and Investment sector at 8.33% respectively. The distribution indicates that most of the companies cross-listed are domiciled in Kenya, Uganda, and Rwanda respectively with no company from Tanzania that is cross-listed (CMA & CMSA, 2022).

3.7 Sampling Design and Sample Size

Sampling is where a smaller group of people is chosen through the process of sampling from a larger population to infer or make predictions about the population. Lai (2015) proposed that a minimum of 20 enterprises within a given industry every year can yield ample data for predictive purposes. For the 10 years study period that's 2013 to 2022, only nine (9) out of eleven (11) companies targeted remained

cross-listed in different securities/stock exchanges. Some two (2) companies that's Kenya Airways and Uchumi supermarket were suspended from trading at securities/stock exchange in 2018 due to CG and liquidity problems because of significant decline in earnings and share price drop which made it difficult to meet minimum regulatory requirements and financial obligations. To support collection of balanced panel data, this study adopted a purposive sampling approach for cross-listed companies at different securities/stock exchanges within the East African Community Region with accessible financial statements at their websites from 2013 to 2022.

3.8 Data Collection Instruments

The choice of data collection instrument highly depends on the respondent's attributes, subjects being studied, research questions, research objectives, research design, accuracy, reliability of the data that is expected, and results. This study employed quantitative secondary data. The obtained data consisted of longitudinal data for the years 2013-2022. By incorporating longitudinal data, the sample size is expanded, hence improving both the quality and quantity of the obtained data (Gujarati, 2003). The data was gathered utilizing the data collection schedule provided in Appendix 4(a) (excel worksheet).

3.9 Data Collection Procedure

A study license form was granted to the researcher from Kenyatta University Graduate School and utilized it to get clearance from NACOSTI to commence the data gathering process from the integrated reports, audited financial statements, shareholder profiles and investor relations reports of enterprises operating within the EAC region. According to Ngechu (2004) various data collection methods exist such as interviews, direct view, formation of groups, doing narratives, questionnaires, and case studies. The data for all variables was obtained from securities or stock exchange handbooks printed in NSE, USE, DSE, and RSE, company websites, and audited published financial statements of cross-listed companies within EAC region from 2013 to 2022.

3.10 Data Analysis and Presentation

Zikmund et al. (2013), argued that analysis of data is the ability of the researcher to apply reasoned reasoning to understand and convert the collected data into patterns, as well as to select relevant results that can help in decision-making. According to Sekaran (2006), there are four basic steps in analyzing quantitative data: ensuring accuracy, consistency, and completeness through data editing, data coding, and data entry; understanding data through summary of statistics; evaluating the model through diagnostic tests; and lastly, conducting testing of hypothesis. The information was taken from audited financial reports and securities or exchange handbooks. The data was then entered into the STATA version 17 application after being assembled using an Excel worksheet. Variability measures (standard deviation) and indicators of central tendency (mean) were utilized to convert the collected data. Furthermore, inferential statistics were utilized, including panel regression analysis and the Pearson correlation coefficient. The STATA version 17 was used to convert the panel data collected. Tables were used to present the data. With an emphasis on corporate governance practices, descriptive statistics were used to illustrate the traits and evaluate the financial performance of cross-listed businesses in the EAC.

Panel regression model and Pearson correlation were utilized to ascertain the interactions' direction and degree of strength. To select amongst the fixed effect model, pooled/constant model, and random effect model, the analysis used Hausman's specification tests. To evaluate financial performance, several indicators were used, including TOBIN Q and Return on Assets. To investigate the effects of regulatory framework moderation on the connections between CG and cross-listed businesses' financial performance, the study used a Whisman and McClellands (2005) moderation test.

3.11 Diagnostic Tests

The assumptions behind the linear regression model that was considered in this study include multicollinearity, auto-correlation, panel unit root test, normality test and homoscedasticity to validate

non-violation of CLRM before the estimation of equations 3.2, 3.3, 3.4, 3.5, 3.6 & 3.7 coefficients. The OLS estimators have optimal properties well-known as the Gauss-Markov theorem. Based on CLRM assumptions the estimator should be BLUE which is the best linear unbiased estimator with minimum or smaller variance. Non-violation of these assumptions results in biased, inefficient, inconsistent, and unreliable estimators of parameters.

3.11.1 Panel Data Auto-Correlation Tests

A common problem that is expected when panel data is used is serial autocorrelation where residual errors exhibit a correlation for various time periods (Gujarati, 2003). The best model with trustworthy parameter estimators should be created by looking for serial correlations (Gujarati, 2003). The type of data collected, auto-correlation was examined using the Wooldridge autocorrelation test, which was carried out with STATA. The test was carried out by taking ROA & TOBIN Q and all predictor variables together. The no-difference hypothesis was that no serial correlation exists in collected data. With significance level of not more than 5%, correlation exists (Wooldridge, 2002). The serial autocorrelation was detected, and a feasible generalized least squares estimation method was used to resolve it.

3.11.2 Panel Data Multicollinearity Tests

Multicollinearity occurs when independent variables can be directly impacted by additional model variables. This study investigated specific effects of predictor variables on company financial performance levels. These variables largely represent the accounting numbers generated by the firm, and close inter associations among the variables are expected. Therefore, the presence of multicollinearity detected is converted to get the right model that can be efficiently used for the present purpose. Multi-collinearity is an unacceptable scenario where the association among the independent variables is strong (Kothari, 2004). When the multicollinearity effect exists coefficients are wrong, the standard errors are too large which affects the researcher decision to accept or reject the no-difference hypothesis (Cooper &

Schindler, 2006). The existence of multicollinearity was examined in this study using variable inflation factor and tolerance threshold of (10<VIF>1.0 suggested by (Akhtaruddin et al., 2009; Hossain & Hammami, 2009) and correlation coefficient of not more than 0.85 to detect the presence of multicollinearity as recommended by Gujarati (2003).

3.11.3 Panel Data Heteroscedasticity Tests

Heteroscedasticity in the CLRM model states that the residual error's variance is non constant. When the random disturbance variance also referred to as the error component in the relationship between the explanatory and predictive components is known and remains constant for all values of the independent variables, this is known as homoscedasticity. As a result, if the error term is not constant, heteroscedasticity exists. This might result in parameter estimates that are unbiased but have large standard errors, which can be misleading (Wooldridge, 2002). In thus study, to investigate the presence or to test for heteroscedasticity the Brush-Pagan test and White test (Berry & Feldman, 1985) was used to validate no-difference hypothesis that the error variance is homoscedastic with p-values of both tests considered at 0.05 (F>0.05 no heteroscedasticity). According to Gujarati (2003) heteroscedasticity should not be a problem if it doesn't contribute to unbiased parameter estimates.

3.11.4 Panel Data Unit Root Test

This study utilized cross-sectional and time series data, ensuring stationarity, where variance, mean, and autocorrelation remain constant over time, assuming variables are stationary. Failure to test for stationarity could lead to spurious results such as a high coefficient of determination (Gujarati, 2003). It affects t-ratios resulting in insignificant tests. ADF Fisher test (P<0 data is stationary) was employed to check for stationarity in the panel data that was gathered since it enables the researcher to apply the Philip-Perron Dickey-Fuller test even in cases when the data is imbalanced. The acquired panel data either had a unit root or was not stationary, which was the no-difference hypothesis to be evaluated. An alternative theory

is that unit roots were absent from some or all the panels (Choi, 2001). The researcher considered the difference and ran equations 3.2, 3.3 and 3.4 if it was discovered that one of the variables had a unit root.

3.11.5 Panel Data Normality Tests

The multivariate normality of all variables is necessary for the linear regression analysis. The normality test was carried out in this study to determine whether all variables including return on asset, Tobin Q, independent directors, executive directors' remuneration, executive director's shareholding, independent auditors, corporate block holding, product market dominance, company size, age of the firm and regulatory framework used in this study are normally distributed. The null hypothesis was that the data follows a normal distribution. Skewness and Kurtosis was used to determine whether the distribution was normal at 5% level of significance. Furthermore, the Shapiro-Wilk (1965) test and a stronger test was also used to confirm data normality.

3.12 Tests for Fixed and Random Effects

Selecting the appropriate model for your study is crucial when analyzing panel data; The researchers used Hausman specification tests to choose Fixed Effect or Random Effect Model and assess the impact of ICG and ECG control mechanisms on the financial performance of companies listed in the EAC region. The model's random effect theory, according to which there are no appreciable changes, was the hypothesis being investigated. In case the significance level is 5% or less, the alternative hypothesis is approved, and a constant effect is chosen. The random model believes that the coefficients are stochastically described by the parameters where sample size was taken from (Baltagi, 2008). In contrast to the pooled model, which assumes consistency of parameters across multiple observations, the fixed effects model postulates a constant intercept for each business that remains constant across time. The efficacy of estimators is influenced by the degree of connectedness between firm-specific effects and regressors and are evaluated by the Hausman specification test. This experiment was designed to test for a substantial association

between the specific indicators of the entity variable effects and the regressors. In the absence of any association, the variable model is most appropriate for the information at hand. If a link is found, the fixed model is applied (Greene, 2007).

The fixed effects model performed better according to the Hausman test; the researcher looked at the possibility of time-fixed effects. The researcher conducted period non-variable effects tests to determine whether period non-variable effects are present. The time-fixed effects examine whether the dummy variables representing the years under investigation have a value of zero. An F-test was conducted to ascertain if the dummy variables are equal to zero and to establish if the fixed effects (FE) or ordinary least squares (OLS) model should be employed. If the dummy variables have a value of zero, it is not necessary to incorporate time-fixed effects in the model's construction.

3.13 Ethical Considerations

Determining what behavior is right and bad is the task of ethics (Resnik, Rasmussen, & Kissling, 2015). This study obtained a letter of authority from Graduate School-KU and NACOSTI to ensure that ethical issues are followed. The data sources from where the data is collected was attached as Appendices and all empirical literature adequately referenced.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

In this chapter, a summary of variables descriptive statistics in the research were presented that relates to variability and indicators of central tendency. The classical linear regression model's presumptions were checked with diagnostic tests before panel multiple regression analysis was carried out. The diagnostic tests that were performed include the Hausman test for fixed and random components, autocorrelation, heteroscedasticity, multicollinearity, normality test and unit root testing. The results of panel multiple regression analysis and correlation analysis which include coefficients for evaluating the direction and the power of correlation between cross-listed entities financial performance in the EAC and corporate governance are presented in this chapter.

4.2 Sample Representation

In the context of corporate governance, regulatory framework, and financial performance analysis, secondary data was collected from 9 out of 11 cross-listed companies, representing an 81.82% response rate. Two companies (18.18%) were excluded from the study due to incomplete data, suspension, and delisting from stock exchanges. Despite these exclusions, the data set remained balanced, ensuring consistent coverage across all key variables for the 9 cross-listed companies. This balanced data allows for reliable comparisons and accurate insights into the corporate governance practices and financial performance of the analyzed firms.

4.3 Descriptive Statistics

A succinct summary of descriptive statistics is provided in table 4.1, which also includes the average or mean, variability measure-standard deviation, minimum values and maximum values for a number of variables, including return on assets (percentages), Tobin Q (percentages), independent directors

(percentages), compensation of executive directors (logarithms of total amount), shareholding of executive directors (percentages), independent auditors (number of years), corporate block holding (percentages), dominance of a particular product market (percentages), company size (logarithm of companies total assets), age of the firm (number of years), and regulatory framework (percentages).

Table 4.1: Descriptive Statistics

Variable	Observations	Mean	Std. dev.	Min	Max
Return on Assets	90	.05724	.04609	-.01250	.22135
Tobin Q	90	.80362	.26932	.27599	1.8471
Independent directors	90	.71550	.15848	.25	.90909
Executive directors' remuneration	90	9.4232	.98665	7.4043	11.718
Executive director's shareholding	90	.01214	.01923	3.7008	0.9624
Independent auditor's	90	4.4666	2.1836	1	10
Corporate block holding	90	.96411	.03529	.85123	1
Product market dominance	90	.11111	.09627	.00427	.68038
Company's size	90	7.6819	1.3843	5.4436	10.103
Age of the company	90	1.7438	.26302	1	2.1003
Regulatory framework	90	.80714	.16843	.28571	1

Source: Research, 2023

Table 4.1 indicates the average ROA for the 90 values in the data set was 0.05724, with a variability of 0.04609. The observed values ranged from -0.01250 to 0.22135, which were the lowest and highest values respectively. The negative minimum number implies that some organizations saw a declining trend and most likely reported losses, however the positive mean shows the positive performance trend of respectable enterprises. Tobin Q, which measures a company's financial performance, had a mean return of 0.80362. Its greatest value was 1.8479, and its minimum value was 0.27599. Its standard deviation was 0.26932. Tobin Q's positive value suggests that most enterprises experienced significant success.

However, a score as low as 0.27599 implies that certain businesses may still be having difficulty raising their profits.

Table 4.1 data indicated that the independent directors' average was 0.71550, or 71.550%, with a 0.15848 standard deviation.1. 25% was the lowest and 90.909% was the highest number that was discovered. The 71.550% mean average of the company's corporate boards shows that board members who are independent make up most of the board members. The board's current structure empowers them to take independent actions that improve the operation of the business. If the percentage is at least 25%, then a sizable fraction of the organizations board is made up of executive directors, who hold the primary position. These findings run counter to those of Evans and Meiting (2017), Mishra (2023), Onong, Nasih, Anshori, and Harymawan (2022), which discovered a favorable correlation between a significant percentage of autonomous members and better performance in public entities. With a variability of 0.98665, the mean log of senior directors' remuneration was 9.4232. 11.7186 was the highest recorded value, and 7.4043 was the lowest. The results showed that senior directors' compensation varied significantly amongst organizations. This distinction reduces conflicts of interest in some organizations, which greatly enhances performance. The results corroborate earlier research by Soni & Singh (2020) and Rehman et al. (2021), which claimed that high-level compensation for senior directors directly influences the organization's financial performance by lowering expenses and strengthening control over operational inefficiencies. The analysis's findings blatantly conflict with those of the Sharmin et al. study (2020).

The average value of 1.214% of all shares, or the executive director's shareholdings, is shown in Table 4.1. With a variability of 0.01923, we can determine the distance the data is to the mean. 0.09624 is the largest figure ever recorded, while 0.0003708 is the smallest. An executive director's typical ownership interest is still quite small in certain companies. Some companies have both executive directors and stockholders, according to the highest percentage of 9.624%. This approach greatly enhances performance

by helping shareholders align their interests with those of managers. The outcomes validate the research completed in 2021 by Ogabo, Ogar, and Nuipoko, which found a clear correlation between the financial performance and the executive directors' shareholdings. The ninety observations made by the independent auditors yielded an average of 4.4666, a variability of 2.1836, and a range of values from 1 to 10. The average figure of 4.4666 represents the length of time a business has collaborated with the same auditor. The outcomes supported Al-ahdal and Hashim's (2021) findings, which indicated that a financial success is directly impacted by the length of time it works with an audit firm. When the value is highest over a ten-year period, it means that most organizations have been using the same auditor for a considerable amount of time. On the other hand, if a given auditor has the lowest value of one year, it means that they have only worked on one accounting year.

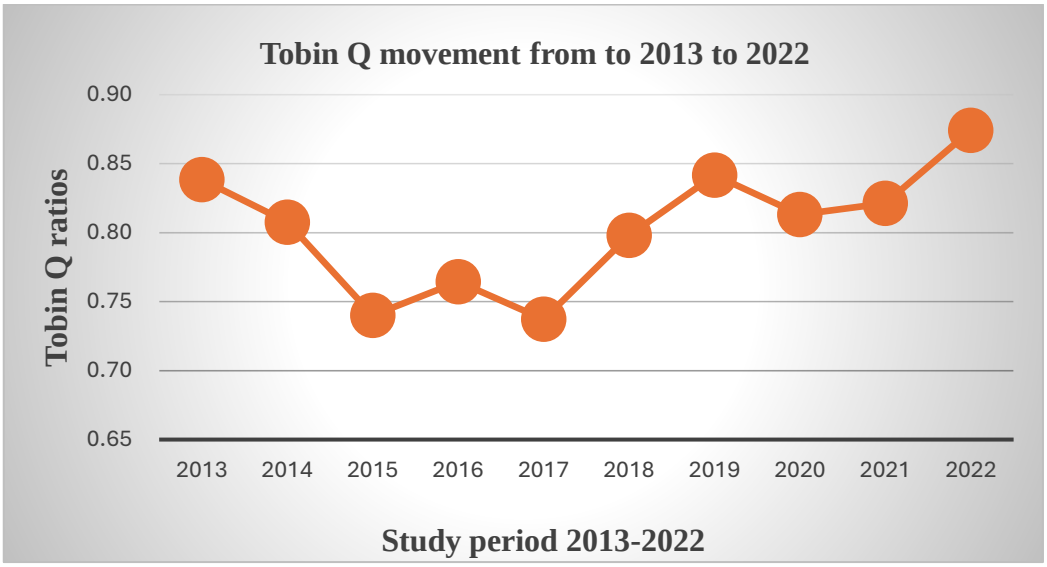
The corporate block holding has the following values: minimum = 0.85123, or 85.123%; maximum = 1, or 100%; mean = 0.96411, or 96.411%; standard deviation = 0.03529. Based on an average fraction of 96.411%, most of the enterprise's ownership was held by both local and global institutions. While the lowest number, 85.123%, showed that non-institutional shareholders possessed or were awarded 15% of the total shares in other businesses, the highest number, 100%, demonstrated that certain businesses were wholly controlled by institutions. The ownership of these companies differed by a very little amount (0.03529). The outcomes confirm the findings of Tanui (2021) and Abedin et al. (2022), who discovered a direct link of entities financial performance and a higher degree of institutional ownership. The average value of the product market domination is 0.11111, or 11.111%, with a 0.09627 standard deviation. 0.00427 and 0.68038 are its lowest and maximum values, respectively. With an average market share of 11.11111%, most of the businesses examined in this research fall within the lowest and maximum market share ranges of 68.038% and 0.427%. Additionally, Shin & Lee (2023) and Mubeen et al. (2022) discovered a clear connection between a business's domination of the product market and its financial performance.

The company size yielded an average of 7.6819 and a variability of 1.3843, which were used to calculate the corporation's size. 5.4436 was the lowest recorded figure, and 10.1037 was the highest. With a variability of 0.26302, the mean logarithm of a company's operational length was 1.7438. 1. was the shortest measured time and 2.1003 was the longest. Based on the study's minimum deviation, most of the companies under review have been in business for a comparable amount of time. The regulatory framework's average was 0.80714, with a 0.16843 standard deviation. The range was as high as 1, or 100%, and as low as 0.28571, or 28.571%. Most businesses have complied with the law, as shown by their average compliance rating of 80.714%, with a low compliance rate of 28.571% and a highest compliance score of 100%.

4.4 Trend Analysis

Trend analysis was used in corporate governance mechanisms and financial performance metrics such as Tobin's Q, Return on Assets (ROA), independent directors, executive directors' compensation, executive director's shareholding, independent auditors, corporate block holding, product market dominance, company size, age of the firm and regulatory frameworks to identify patterns or movements from 2013 to 2022.

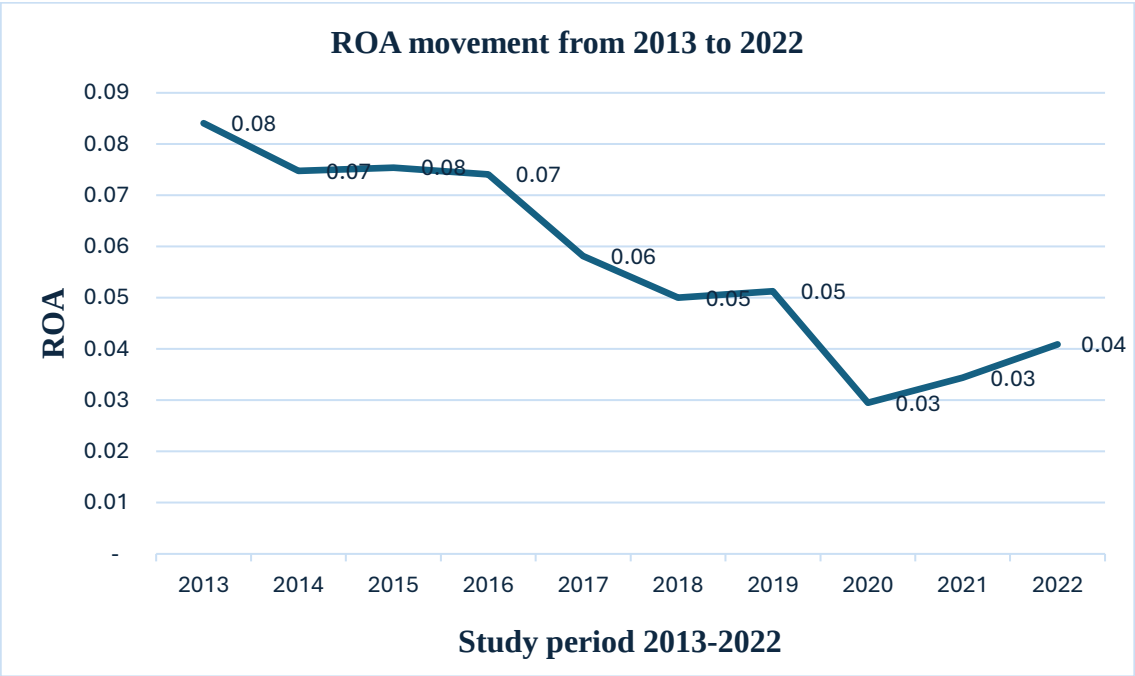
Figure 4.2: Tobin Q trend analysis from 2013 to 2022



Source: Research, 2023

Figure 4.1 above illustrates Tobin's Q ratio from 2013 to 2022, showing fluctuations in percentage terms over the years. Tobin's Q, which compares a company's market value to the replacement cost of its assets, starts at 84% in 2013. In 2014, it slightly decreases to 81%, followed by a significant drop to 74% in 2015. A minor recovery occurs in 2016 as it rises to 76%, but it dips again in 2017 back to 74%, marking the lowest point during this period. From 2018 onwards, Tobin's Q shows a steady upward trend. In 2018, it increases to 80%, followed by another rise to 84% in 2019, which is sustained through 2020. In 2021, there is a slight decline to 82%, but this is followed by a sharp increase in 2022, reaching the highest value on the graph at 87%. Overall, the data depicts a dip between 2015 and 2017, followed by a recovery that culminates in the peak value observed in 2022.

Figure 4.3: Return on Assets trend analysis from 2013 to 2022

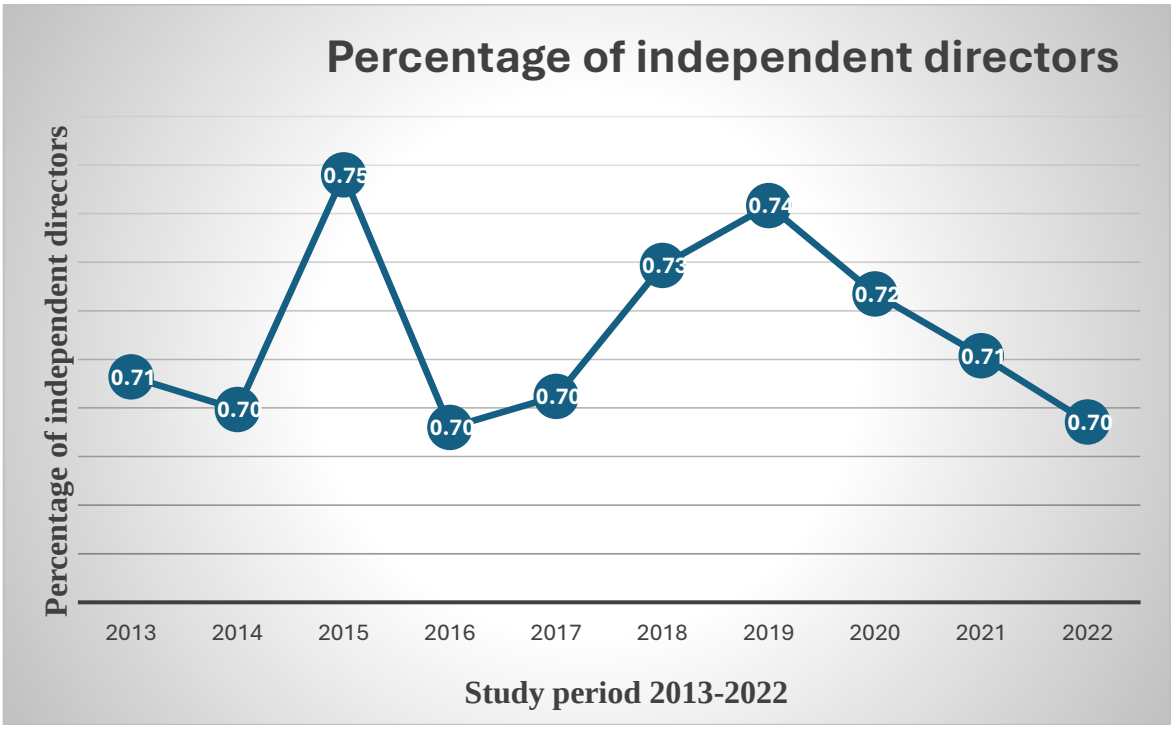


Source: Research, 2023

Figure 4.2 shows the Return on Assets (ROA) trend from 2013 to 2022, highlighting how efficiently the company utilized its assets to generate earnings over time. In 2013, the ROA stands at approximately 8.7%, indicating strong asset efficiency and profitability. However, by 2014, the ROA experiences a slight decline, dropping to 8.0%. From 2015 to 2016, the ROA remains relatively stable, hovering between 7.5%

and 7.6%, but the overall trend begins to shift downward starting in 2017, where it falls to 6.0%. The decline continues in 2018 with a further decrease to 5.0%, reflecting reduced profitability or less efficient use of assets. In 2019, the ROA drops to 4.5%, followed by a significant dip in 2020 to 3.0%, the lowest point on the graph. This dramatic decline could be linked to economic disruptions or external challenges that impacted profitability. After 2020, a recovery trend emerges, with the ROA improving to 3.4% in 2021 and further climbing to 4.1% by 2022. This indicates a gradual restoration of asset efficiency and profitability in the post-2020 period.

Figure 4.4: Percentage of independent directors' trend analysis from 2013 to 2022



Source: Research, 2023

The graph shows the proportion of Independent Directors from 2013 to 2022, with values fluctuating over the years. Independent directors are board members who do not have a material relationship with the company and are considered essential for corporate governance and oversight. In 2013, the proportion of independent directors starts at 0.71, indicating that 71% of the board members were independent. This proportion decreases slightly in 2014 to 0.70 but jumps significantly in 2015 to 0.75, marking the highest

point on the graph. However, this peak is followed by a sharp decline in 2016, where the proportion of independent directors drops to 0.69, the lowest point during the period. After this, the proportion begins to increase gradually, reaching 0.70 in 2017 and continuing to rise to 0.73 by 2018. In 2019, the proportion of independent directors reaches 0.74, marking another peak, but after that, it begins a steady decline. In 2020, the proportion drops to 0.72, followed by further declines to 0.71 in 2021 and 0.70 in 2022, which is like the levels observed at the beginning of the period. Overall, the data depicts cyclical fluctuations in the proportion of independent directors, with notable peaks in 2015 and 2019, and troughs in 2016 and 2022. Despite some variation, the proportion remains relatively high, suggesting that a significant portion of the board consistently comprises independent members over the years.

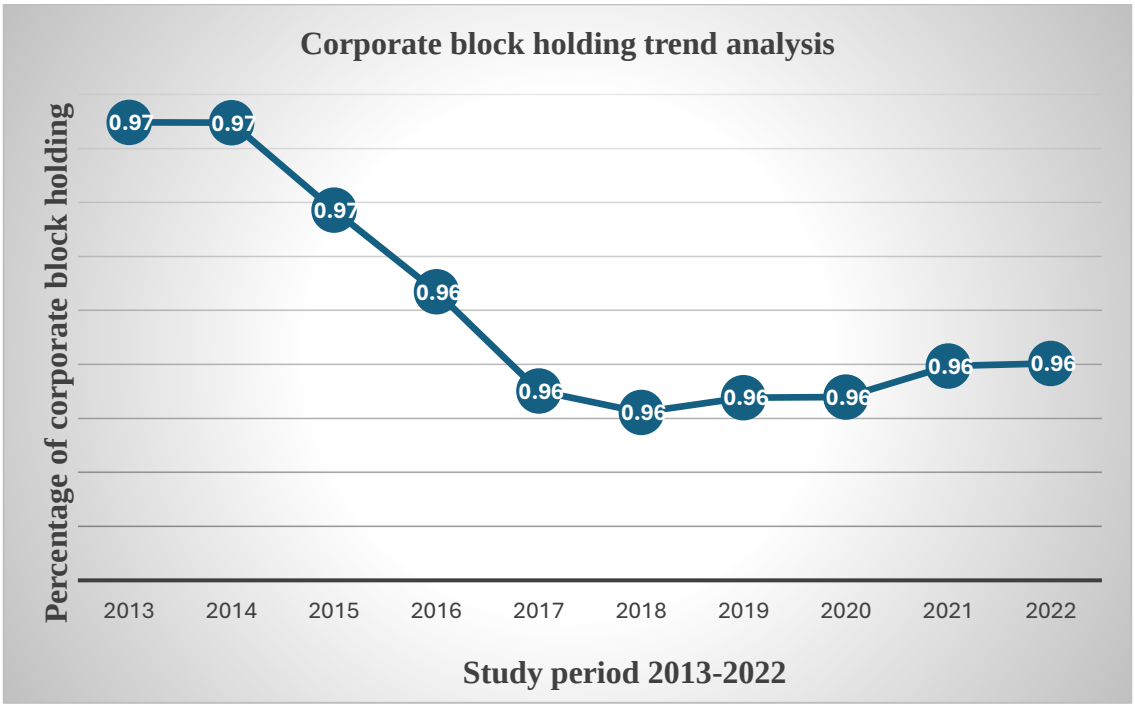
Figure 4.5: Executive director's shareholding trend analysis from 2013 to 2022

Source: Research, 2023

The figure 4.4 above indicates the shareholding percentage of executive directors from 2013 to 2022. From 2013 to 2015, the shareholding remained relatively stable at just above 0.01. There was a sharp increase in 2016, peaking in 2017 at approximately 0.02. However, after this peak, the shareholding

declined steadily from 2018 to 2019, reaching its lowest point in 2020 at around 0.01. From 2020 onward, there was a slight rise in 2021, followed by a more noticeable increase in 2022, bringing the shareholding back closer to 0.015. Overall, the graph depicts fluctuations in executive directors' shareholding over the ten-year period, with a significant rise in the middle years followed by a gradual decline and recent recovery.

Figure 4.6: Corporate block holding trend analysis from 2013 to 2022



Source: Research, 2023

The line graph 4.5 above illustrates the trend in corporate block holding from 2013 to 2022. In 2013 and 2014, corporate block holding remained steady at around 0.97. However, starting in 2015, there was a gradual decline, with the value dropping each year until it reached its lowest point in 2017 at approximately 0.96. From 2018 to 2020, the block holding stayed relatively stable, fluctuating slightly but remaining around 0.96. In 2021 and 2022, there was a slight upward trend, with corporate block

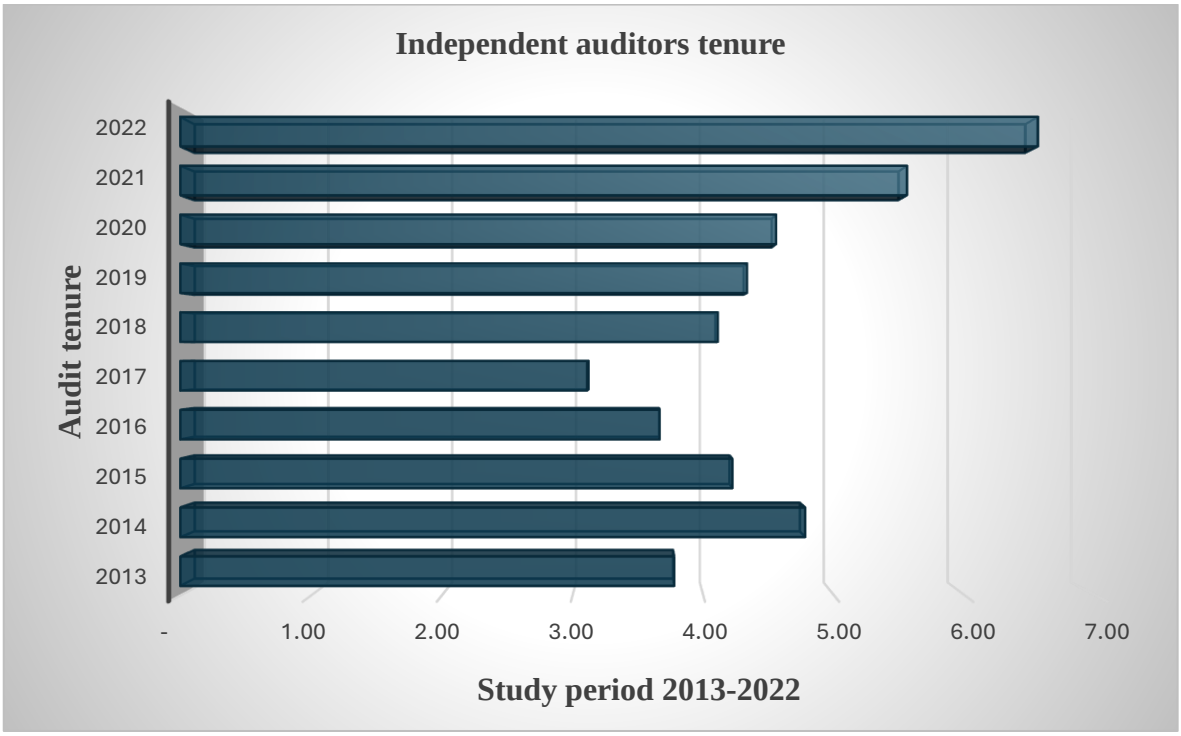
holding increasing marginally, though it remained below the levels seen in the earlier part of the decade. Overall, the graph shows an initial decline followed by a period of stability and slight recovery.

Figure 4.7: Executive directors trend analysis from 2013 to 2022

Source: Research, 2023

The figure 4.6 above presents the executive director's compensation (log of salaries, bonus, allowances) from 2013 to 2022. In 2013, the compensation was slightly below 9.30, followed by a gradual increase in 2014 and a significant rise in 2015, reaching just above 9.50. However, in 2016, compensation remained around the same level, maintaining this high point. In 2017, there was a slight decrease, with compensation dropping closer to 9.40. From 2018 to 2020, the compensation saw a downward trend, reaching its lowest point in 2020, just above 9.25. In the following years, there was a recovery, with compensation rising steadily in 2021 and 2022, approaching 9.50 again. Overall, the chart shows fluctuations in compensation, with notable peaks in 2015 and 2022.

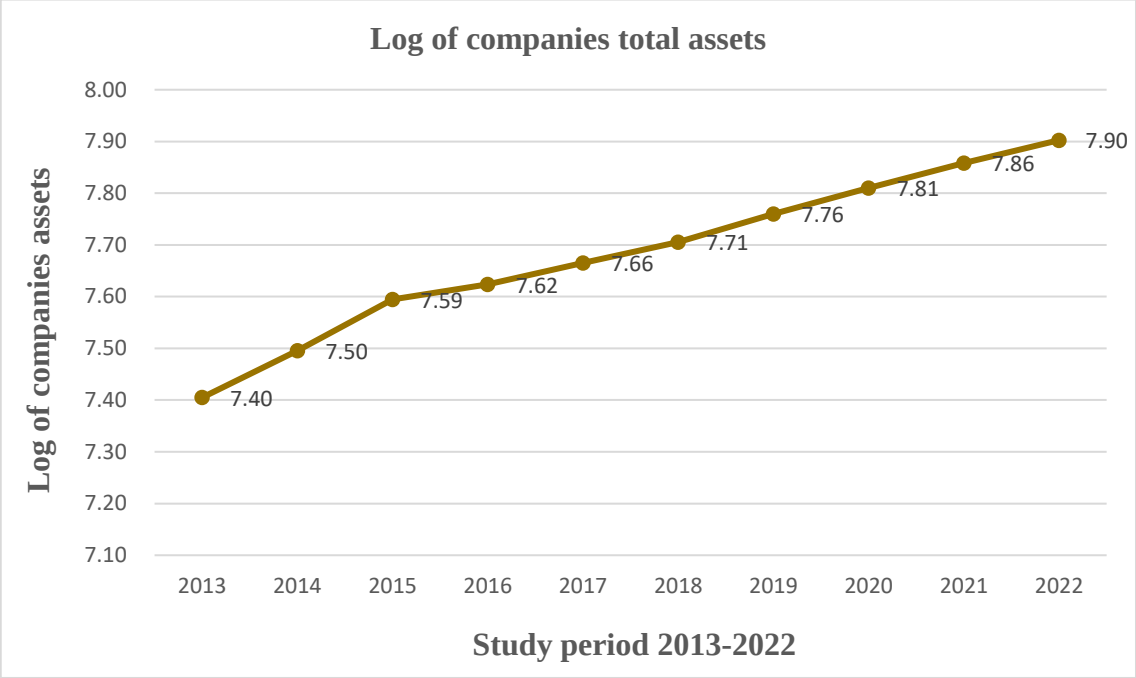
Figure 4.8: Independent auditors trend analysis from 2013 to 2022



Source: Research, 2023

The figure 4.7 above displays the number of independent auditors' tenure from 2013 to 2022. The values show a steady increase over the years. In 2013, the number of independent auditors' tenure on average was slightly above 3 years. This number grew gradually reaching about 4 years by 2017. A more significant increase occurred after 2018, with each subsequent year showing growth. By 2022, the number of independent auditors' tenure reached its peak, approaching 7 years. This progression suggests a consistent rise in the number of independent auditors' average tenure over the decade, with a notable increase in the most recent years.

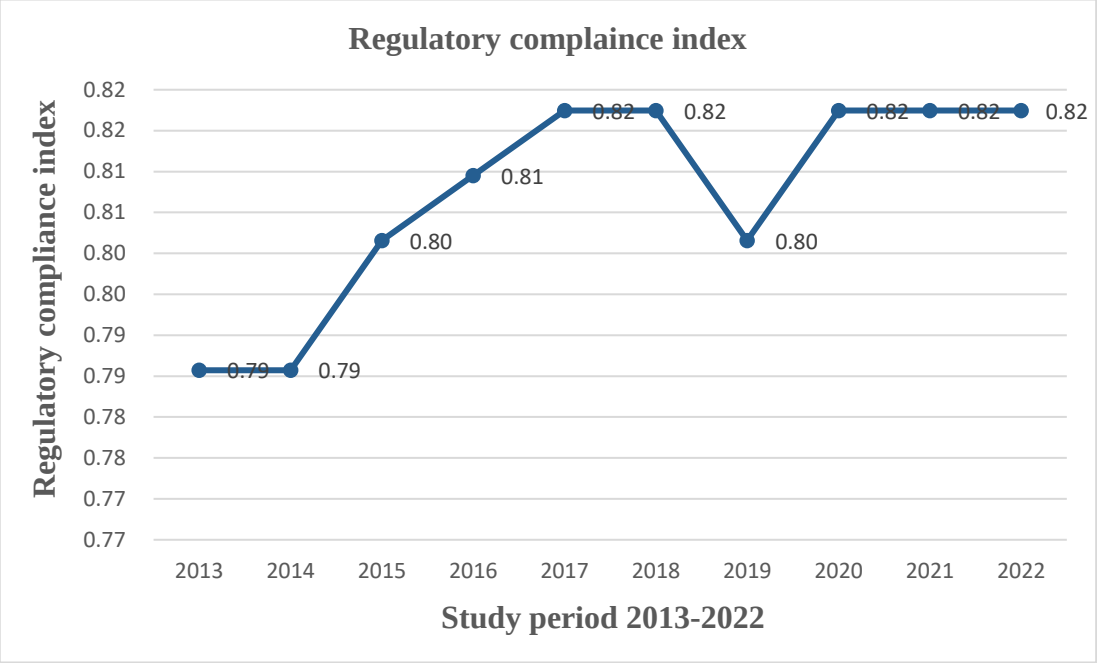
Figure 4.9: Company size trend analysis from 2013 to 2022



Source: Research, 2023

The figure 4.8 above indicates the growth in company size from 2013 to 2022. In 2013, the company size started at approximately logarithm of 7.40 and showed a steady increase throughout the years. There was a noticeable rise between 2014 and 2015, where the size moved from around logarithm of 7.45 to logarithm of 7.55. From 2016 to 2019, the growth was gradual, with the size increasing slightly each year. After 2019, the trend continued upward, with a consistent and steady increase until it reached just under logarithm of 8.00 in 2022. Overall, the graph depicts continuous growth in company size over the 10-year period.

Figure 4.10: Regulatory compliance index trend analysis from 2013 to 2022



Source: Research, 2023

Figure 4.9 shows the changes in the regulatory framework from 2013 to 2022. In 2013, the value was just below 0.79 or 79% and remained stable through 2014. Starting in 2015, the regulatory framework experienced a notable increase, reaching approximately 81% by 2016 and peaking at around 82% in 2017 and 2018. However, there was a sharp decline in 2019, where the value dropped to approximately 80%. After this dip, the regulatory framework recovered quickly in 2020 and stabilized at around 82%, maintaining this level through 2021 and 2022. The graph indicates periods of both growth and fluctuation but ends on a stable note.

4.5 Diagnostic Test Results

As indicated in chapter three, diagnostic tests such as multicollinearity tests, autocorrelation tests, homoscedasticity tests, normality tests, panel unit root tests, and Hausman fixed random specification tests were carried out to confirm assumptions CLRM model were not violated and to determine the most suitable model to address any violations of CLRM assumptions.

4.5.1 Autocorrelation Tests Findings

Wooldridge test was used to investigate autocorrelation in the panel data and identify the existence of autocorrelation in the data gathered, as illustrated in the table below.

Table 4.2: Wooldridge Autocorrelation Test

H0: no first-order autocorrelation
F (1, 8) = 160.380
Prob > F = 0.0000

Source: Research, 2023

The null hypothesis posited the absence of first-order autocorrelation in the data gathered for this study. The results showed that the F-test value of 160.380, with (1 ,8) degrees of freedom in the denominator. The reported F-test (p-value=0.0000) <0.05, indicating statistical significance at a 5% level. As a result, the null hypothesis of no first-order autocorrelation in the data was rejected. The results validate the existence of autocorrelation in the data, which contradicts the assumption of the CLRM. This issue was addressed by employing the feasible generalized least squares estimation method (FGLS).

4.5.2 Multicollinearity Tests Findings

The table 4.3 below presents the multicollinearity test results based on correlation coefficient of not more than 0.85 to detect the presence of multicollinearity as recommended by Gujarati (2000).

Table 4.3: Correlation Matrix

	ID	EDR	EDS	IA	CBH	PMD	CS	AGF
ID	1.0000							
EDR	0.4381	1.0000						
EDS	0.0326	0.0098	1.0000					
IA	0.0689	-0.0758	-0.0110	1.0000				
CBH	-0.0955	-0.0975	0.1544	-0.0777	1.0000			
PMD	0.0778	0.2397	0.2567	-0.1257	0.2672	1.0000		
CS	-0.0065	-0.4204	-0.1693	0.2664	-0.2576	-0.5099	1.0000	
AGF	-0.1118	-0.5767	0.0898	0.0620	0.0875	0.0328	0.2358	1.0000

ID-Independent directors; EDR-Executive directors' remuneration; EDS-Executive directors shareholding; IA-Independent auditors; CBH-Corporate block holding; PMD-Product market dominance; CS-Company size; AGF-Age of the firm.

Source: Research, 2023

The predictor variables considered were independent directors, executive directors' remuneration, executive directors shareholding, independent auditors, corporate block holding, product market dominance, company size, and age of the firm. The correlation coefficients for all explanatory factors in Table 4.3 were found to be below 0.85 as suggested by Gujarati (2000). The test results show that, contrary to what other research (Gujarati, 2003; Cooper & Schindler, 2008) stated, there was no substantial multicollinearity in the collected data.

Table 4.4: Variable Inflation Factor (VIF)

Variable	VIF	1/VIF (Tolerance)
Executive director's remuneration	2.41	0.415702
Company size	1.74	0.574246
Age of the company	1.73	0.576967

Product market dominance	1.49	0.669634
Independent directors	1.36	0.736905
Executive shareholding	1.09	0.918736
Independent auditors	1.08	0.922903
Mean VIF	1.56	

Source: Research, 2023

Based on predictor variables that includes independent directors, executive directors' remuneration, executive director's shareholding, independent auditors, corporate block holding, product market dominance, company size, and age of the firm. The variable inflation factors and tolerance measures confirms absence of multicollinearity and all variables meets tolerance threshold of $0.1 > VIF < 10$.

4.5.3 Heteroscedasticity Test Findings

To detect the presence of heteroscedasticity, Breusch-pagan and White test was conducted as indicated in the table below.

Table 4.5: Breusch–Pagan/Cook–Weisberg test for heteroskedasticity

Assumption: Normal error terms			
Variable: Fitted values of ROA			
H0: Constant variance			
Ha: Non-Constant variance			
Source	**chi2**	**df**	**p**
Heteroskedasticity	65.55	35	0.0000
Total	93.01	43	0.0000

Source: Research, 2023

The alternative hypothesis suggested that residual error variance is not constant, the null hypothesis maintained that the residual error variance is constant or homoscedastic. A chi-square value of 21.01 was obtained from the Breusch–Pagan/Cook–Weisberg test and at a significance level of 5% and a p-value = 0.0000, it was statistically significant. At 5% level of significance, the Breusch–Pagan/Cook–Weisberg

test findings indicated that the homoscedasticity null hypothesis should be rejected. According to Poi (2001), this implies that the error variance was heteroscedastic rather than constant which violates the classical linear regression model assumption; the problem was handled based on FGLS estimation method.

Table 4.6: White Tests for heteroskedasticity (Cameron & Trivedi's decomposition of IM-test)

H0: Homoskedasticity			
Ha: Unrestricted heteroskedasticity			
Source	**chi2**	**df**	**p**
Heteroskedasticity	65.55	35	0.0013
Skewness	26.82	7	0.0004
Kurtosis	0.64	1	0.4245
Total	93.01	43	0.0000

Source: Research, 2023

In contrast to the alternative hypothesis, which suggested that residual error variance is not constant, the null hypothesis maintained that the residual error variance is constant or homoscedastic. A chi-square value of 65.55 was obtained from the White test findings, and at a significance level of 5% and a p-value = 0.0000, it was statistically significant. At 5% level of significance, the White test findings showed that the homoscedasticity null hypothesis was rejected. According to Poi (2001), this implies that the error variance was heteroscedastic rather than constant. This violates the classical linear regression model assumption; the problem was handled based on FGLS estimation method.

4.5.4 Panel Unit Root Test

The Fisher-type tests which comprise modified inverse chi-squared at 5% significance level, inverse logit, inverse normal, and inverse chi-squared, are shown in the table 4.7 below.

Table 4.7: Fisher-type panel unit root tests

Variables	Tests	Panel Means	Panel Means + Drift	Panel Means + Time Trend
Return on assets	Inverse chi-squared	91.3834 (0.0001)	53.4754 (0.0000)	25.5379 (0.0108)
	Inverse normal	-2.1968 (0.0140)	-4.7129 (0.0000)	-1.7557 (0.0396)
	Inverse logit	-6.3354 (0.0000)	-4.8118 (0.0000)	-1.6827 (0.0494)
	Modified inv. chi-squared	12.2306 (0.0000)	5.9126 (0.0000)	1.2563 (0.0045)
Tobin Q	Inverse chi-squared	18.299 (0.0361)	49.8448 (0.0001)	22.9170 (0.0938)
	Inverse normal	-0.6632 (0.0536)	-4.5138 (0.0000)	-0.7249 (0.0343)
	Inverse logit	-0.6340 (0.0645)	-4.4897 (0.0000)	-0.7590 (0.0258)
	Modified inv. chi-squared	0.0499 (0.0801)	5.3075 (0.0000)	0.8195 (0.0062)
Independent directors	Inverse chi-squared	53.9636 (0.0001)	71.5092 (0.0001)	92.2717 (0.0001)
	Inverse normal	-3.8136 (0.0001)	-6.0333 (0.0001)	-5.8950 (0.0001)
	Inverse logit	-4.4694 (0.0000)	-6.5680 (0.0001)	-8.1152 (0.0001)
	Modified inv. chi-squared	5.9939 (0.0000)	8.9182 (0.00001)	12.3786 (0.0001)
Executive directors' remuneration	Inverse chi-squared	30.0213 (0.0372)	53.2524 (0.0001)	32.9414 (0.0170)
	Inverse normal	-1.1910 (0.0168)	-4.6093 (0.0001)	1.6601 (0.0485)
	Inverse logit	-1.4930 (0.0709)	-4.7671 (0.0000)	-1.9144 (0.0307)
	Modified inv. chi-squared	2.0035 (0.0226)	5.8754 (0.0000)	2.4902 (0.0064)
Executive director's shareholding	Inverse chi-squared	140.626 (0.0000)	44.8362 (0.0004)	9.5207 (0.9464)
	Inverse normal	-9.4187 (0.0000)	-3.4962 (0.0002)	1.7608 (0.9609)
	Inverse logit	-12.875 (0.0000)	-3.5684 (0.0004)	1.8367 (0.9638)
	Modified inv. chi-squared	20.4377 (0.0000)	4.4727 (0.0000)	-1.4132 (0.0212)
Independent auditors	Inverse chi-squared	39.4711 (0.0025)	42.6917 (0.0003)	4.6654 (0.0993)
	Inverse normal	-2.1785 (0.0147)	-4.1500 (0.0000)	1.9895 (0.0767)
	Inverse logit	-2.6537 (0.0054)	-4.0822 (0.0001)	1.8268 (0.0627)
	Modified inv. chi-squared	3.5785 (0.0000)	4.7185 (0.0000)	-2.2224 (0.0869)

Corporate block holding	Inverse chi-squared	68.5496 (0.0000)	42.4303 (0.0001)	11.5708 (0.0686)
	Inverse normal	-3.7048 (0.0001)	-4.2803 (0.0000)	0.5401 (0.7054)
	Inverse logit	-5.5737 (0.0000)	-4.3694 (0.0000)	0.4666 (0.0783)
	Modified inv. chi-squared	8.4249 (0.0000)	5.3728 (0.0000)	-1.0715 (0.0580)
Product market dominance	Inverse chi-squared	101.800 (0.0000)	85.7164 (0.0001)	93.2540 (0.0001)
	Inverse normal	-5.9933 (0.0000)	-6.8340 (0.0001)	-6.3143 (0.0001)
	Inverse logit	-9.0381 (0.0000)	-7.9039 (0.0001)	-8.4347 (0.0001)
	Modified inv. chi-squared	13.9668 (0.0000)	11.2861 (0.0001)	12.5423 (0.0001)
Company's size	Inverse chi-squared	29.9829 (0.0376)	48.2528 (0.0001)	17.7713 (0.0708)
	Inverse normal	-0.1088 (0.0567)	-2.7340 (0.0031)	0.6399 (0.0389)
	Inverse logit	-0.0978 (0.0612)	-3.3444 (0.0008)	0.5281 (0.0001)
	Modified inv. chi-squared	1.9972 (0.0229)	5.0421 (0.0000)	-0.0381 (0.0152)
Company's age	Inverse chi-squared	577.230 (0.0000)	15.0232 (0.0587)	15.1671 (0.0505)
	Inverse normal	-21.426 (0.0000)	-1.8623 (0.0313)	-0.7686 (0.2211)
	Inverse logit	-53.332 (0.0000)	-1.8355 (0.0394)	-1.1638 (0.1280)
	Modified inv. chi-squared	93.2051 (0.0000)	1.7558 (0.0396)	-0.4721 (0.0016)
Regulatory framework	Inverse chi-squared	33.8788 (0.0130)	22.7435 (0.0037)	11.8320 (0.0058)
	Inverse normal	-2.7678 (0.0028)	-3.0999 (0.0010)	0.1184 (0.0071)
	Inverse logit	-2.6748 (0.0051)	-3.1252 (0.0023)	-0.1751 (0.0012)
	Modified inv. chi-squared	2.6465 (0.0051)	3.6859 (0.0001)	-1.0280 (0.0080)

Source: Research, 2023

As indicated in the table 4.7 above, Fisher-type tests recorded p-values that are less than significant level of 5% with exception of inverse chi-squared (0.9464), inverse normal (0.9609) and inverse logit (0.9638) for executive director's shareholding panel means plus time trend with no drift. To validate null hypothesis that every panel shows a unit root for ROA, Tobin Q, independent directors, executive director's remuneration, executive director's shareholding, independent auditors, corporate block holding, product

market dominance, company size, company age and regulatory framework this study used Fisher-type testing as documented by Choi (2001). This investigation concludes that all variables are stationary as none of them exhibit a unit root. This confirms that the findings obtained in this study were not spurious (Gujarati, 2003). All variables were used in their level instead of the first difference order.

4.5.5 Panel Data Normality Tests

The Skewness and Kurtosis test and Shapiro Wilk tests were used to investigate autocorrelation in the panel data and identify the existence of autocorrelation in the data gathered, as illustrated in the table below.

Table 4.8: Skewness and Kurtosis test for Normal Data

				Joint test	
Variable	**Observations**	**Pr(skewness)**	**Pr(kurtosis)**	**Adj chi2(2)**	**Prob>chi2**
Residuals	90	0.1165	0.5535	2.90	0.2345

Source: Research, 2023

The null hypothesis was that the data follows normal distribution while the alternative hypothesis posited that the data doesn't follow normal distribution. Table 4.8 above displays the 90 observations and the probability of skewness, which is 0.1165 indicating that skewness is asymptotically normally distributed (p-value of skewness > 0.05). Corresponding to this, probability of Kurtosis shows that kurtosis which is 0.5535 is asymptotically normally distributed (p-value of kurtosis > 0.05). At the 5% significance level, the significance of the result is supported by the adjusted chi(square) value of 0.2345, which is higher than 0.05. Thus, it is impossible to reject the null hypothesis that the data is normally distributed.

Table 4.9: Shapiro Wilk test for Normal Data

Variable	Observations	W	V	z	Prob>z
Residuals	90	0.97869	1.612	1.052	0.14630

Source: Research, 2023

Table 4.9 above presents Shapiro Wilk test that was used to test the null hypothesis that the data follows normal distribution while the alternative hypothesis posited that the data doesn't follow normal distribution. The findings include 90 observations and the probability of 0.14630 indicating that the data used in this study is normally distributed (p-value > 0.05).

4.5.6: Hausman Tests

Table 4.10: Hausman Test Based on ROA

	Coefficients			
	(b)	**(B)**	**(b-B)**	**sqrt(diag(V_b-_B))**
	fixed	**random**	**Difference**	**Std. err.**
Independent directors	-.0276737	.055575	-.0832487	.0149264
Executive directors' remuneration	.0439087	.0123671	.0315416	.0109084
Executive director's shareholding	-.2455181	.4031098	-.6486278	.1665763
Independent auditors	-.0063548	-.0070093	.0006545	.
Corporate block holding	-.3893278	.4417879	-.8311158	.3792465
Product market dominance	-.0401668	.0075597	-.0477265	.
Company size	-.0211959	.0201893	-.0413852	.0255388
Age of the company	-.2987319	.0118387	-.3105706	.1108011
b = Consistent under H0 and Ha; obtained from xtreg. B = Inconsistent under Ha, efficient under H0; obtained from xtreg. Test of H0: Difference in coefficients not systematic chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 62.99 Prob > chi2 = 0.0000				

Source: Research, 2023

To validate either Fixed Effect or Random Effect Model using return on assets as response variable was chosen based Hausman specification tests. The no-difference hypothesis investigated was that the model follows random effect model. The fixed effect model is selected if the significance level is 0.05 or less, which supports the alternative hypothesis. When the Hausman test was conducted at a significant level of 5%, the results showed a chi-square value of 62.99 and a p-value of 0.0000. At a significance level of 5%, the findings show that the chi-square value=62.99 was statistically significant ($p<0.05$). Consequently, the researcher rejected the null hypothesis that the random effect model is preferable than the fixed model when using return on asset (ROA) as the response variable.

Table 4.11: Hausman Test Based on TOBIN Q

	Coefficients			
	(b)	**(B)**	**(b-B)**	**sqrt(diag(V_b-_B))**
	fixed	**random**	**Difference**	**Std. err.**
Independent directors	.1452202	.4561271	-.3109069	.0916769
Executive directors' remuneration	-.0026348	.1733399	-.1759747	.056529
Executive director's shareholding	5.019739	2.893312	2.126426	.9279925
Independent auditors	0031412	-.0035032	.0066444	.
Corporate block holding	.7597645	.664648	.0951165	1.938453
Product market dominance	.0643796	-.0892768	.1536564	.
Company size	-.0661893	.0905005	.1566898	.1299029
Age of the company	.2709459	.6041704	-.3332245	.5638989
b = Consistent under H0 and Ha; obtained from xtreg. B = Inconsistent under Ha, efficient under H0; obtained from xtreg. Test of H0: Difference in coefficients not systematic chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 32.27 Prob > chi2 = 0.0001				

Source: Research, 2023

To validate either Fixed or Random Model using TOBIN Q as response variable, Hausman specification tests were performed. Whether the variable model is preferable to the fixed effect model was the no-

difference hypothesis that was investigated. If the constant model is selected, the alternative hypothesis is accepted if the p-value < 0.05. At 5% significance level, the Hausman test chi-square value was 32.27, p-value = 0.0001<0.05. The findings show that, at a significant level of 5%, the chi-square value produced was favorable. The researcher disproved the null hypothesis, which states that when using Tobin Q as the response variable, the random model is adopted.

Table 4.12: Testing for Time-fixed effect or OLS (ROA) model.

ROA	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Independent directors	.0000887	.031893	0.00	0.998	-.06362	.06380
Executive directors' remuneration	.0316785	.0127317	2.49	0.015	.006244	.057112
Executive director's shareholding	.0913287	.2786226	0.33	0.744	-.465284	.64794
Independent auditors	-.0058572	.0015096	-3.88	0.000	-.008873	-.002841
Corporate block holding	-.4818803	.3864579	-1.25	0.217	-1.25391	.290158
Product market dominance	-.0601315	.038224	-1.57	0.121	-.136494	.016231
Company size	.0675767	.0375187	1.80	0.076	-.007375	.142528
Age of the company	-.0695223	.1250098	-0.56	0.580	-.319258	.180213
Year |						
2014 |	-.0114661	.0126014	-0.91	0.366	-.036640	.013708
2015 |	-.0258873	.0141118	-1.83	0.071	-.054078	.002304
2016 |	-.0326008	.0145466	-2.24	0.028	-.061661	-.003540
2017 |	-.053722	.0163234	-3.29	0.002	-.086331	-.021112
2018 |	-.0566242	.0182867	-3.10	0.003	-.093156	-.020092
2019 |	-.0571021	.0197351	-2.89	0.005	-.096527	-.017676
2020 |	-.0807798	.0213803	-3.78	0.000	-.123491	-.038067
2021 |	-.0748496	.0233631	-3.20	0.002	-.121522	-.028176
2022 |	-.064513	.0258665	-2.49	0.015	-.116187	-.012838
_cons |	-.0971391	.5647983	-0.17	0.864	-1.22545	1.03117
F test that all u_i=0: F(8, 64) = 7.90		Prob > F = 0.0000				

Source: Research, 2023

The Hausman test results led to the adoption of fixed effect model. The researcher conducted a time fixed effect test to verify whether time-fixed effects are present. If the dummy variables corresponding to the years under study are zero, the time-fixed effects verify this. If the dummy variables equaled zero, an F-test was run to evaluate if the fixed effects (FE) or ordinary least squares (OLS) model should be employed. The no-difference test states that the data did not contain any fixed effects. The report indicated the presence of fixed effects in the information. Table 4.10 shows that the ROA chi-square value was 7.90, which translates to a 0.0000 p-value. This chi-square value was statistically favourable at 5% significance level. The chi-square results for the Tobin Q model were 7.52, with a p-value of 0.0000, according to appendix 9. This implies that the chi-square test was statistically significant at the 5% level of significance. The argument that there were no fixed effects in the data was refuted by the null hypothesis. The investigation's findings demonstrate the continuous panel effects of Tobin's Q and return on assets (ROA). This study accounted for fixed effects by replacing the ordinary least squares (OLS) model with a fixed effect model.

4.6 Correlation Analysis

The degree to which two variables have a linear link is determined by correlation analysis. The values of the Pearson correlation coefficient, or r, range from -1 to +1. Cooper and Schindler (2003) state that a value less than zero indicates a negative association between the two variables, meaning that as the value of one variable increases, the value of the other variable decreases and vice versa. A value of -1 indicates perfect negative correlation, meaning that an increase in one variable is followed by a proportionate decrease in the other variable. Zero denotes that there is no correlation between the two variables. Any r value above zero suggests that there is a positive correlation between the variables, suggesting that the other variable's value rises proportionately to the value of the first one. 105 When the correlation coefficient is 1, it indicates perfect positive correlation, meaning that changes in one variable would correspondingly affect changes in the other. The higher the correlation between the two variables, the

closer the Pearson correlation coefficient value is to either +1 or -1. According to Sekaran (2006), if the study's variables are measured using interval or ratio scales, the Pearson's correlation is employed. The correlation results in this study are shown at 0.05 significance levels which is in line with the findings of prior studies by Munjuri (2012) and Magutu (2012).

Table 4.13: Table 4.13: Correlation Coefficients using ROA as a Response Variable

	ROA	ID	IDR	EDS	IA	CBH	PMD	CS	AGF
ROA	1.0000								
ID	0.2463	1.0000							
IDR	0.0544	0.4382	1.0000						
EDS	0.1391	0.0326	0.0092	1.0000					
IA	-0.2048	0.0689	-0.0759	-0.0110	1.0000				
CBH	0.1942	-0.0939	-0.0855	0.1517	-0.0808	1.0000			
PMD	-0.0337	0.0778	0.2399	0.2567	-0.1257	0.2797	1.0000		
CS	0.2938	-0.0065	-0.4205	-0.1693	0.2664	-0.2726	-0.5099	1.0000	
AGF	0.0588	-0.1306	-0.6021	0.0867	0.0572	0.0744	0.0266	0.2547	1.000

ID-Independent directors; EDR-Executive directors' remuneration; EDS-Executive directors shareholding; IA-Independent auditors; CBH-Corporate block holding; PMD-Product market dominance; CS-Company size; AGF-Age of the firm.
Source: Research, 2023

Table 4.13 above shows a statistically significant positive correlation between ROA and independent directors ($r = 0.2463$, $p =< 0.05$); ROA and executive directors remuneration ($r = 0.0544$, $p =< 0.05$); ROA and executive directors shareholding ($r = 0.1391$, $p =< 0.05$); ROA and corporate block holding ($r = 0.2463$, $p =< 0.05$); ROA and company size ($r = 0.2938$, $p =< 0.05$); ROA and age of the firm ($r = 0.0588$, $p =< 0.05$). This means that the financial performance of cross listed companies increases when percentage of independent directors, executive directors' remuneration, executive director's shareholding, corporate block holding, company size and age of the firm increases. The study findings reveal statistically

significant negative correlation between ROA and independent auditors (r = -0.2048, p=< 0.05); ROA and product market dominance (r = -0.0337, p=< 0.05). The findings indicate that financial performance decreases when companies' product market dominance and independent auditors' tenure increases.

Table 4.14: Correlation Coefficients using TOBIN Q as a Response Variable

	Tobin Q	ID	IDR	EDS	IA	CBH	PMD	CS	AGF
Tobin Q	1.0000								
ID	0.4607	1.0000							
IDR	0.1908	0.4382	1.0000						
EDS	0.1990	0.0326	0.0092	1.0000					
IA	0.0943	0.0689	-0.0759	-0.0110	1.0000				
CBH	-0.0506	-0.0939	-0.0855	0.1517	-0.0808	1.0000			
PMD	0.0008	0.0778	0.2399	0.2567	-0.1257	0.2797	1.0000		
CS	0.2967	-0.0065	-0.4205	-0.1693	0.2664	-0.2726	-0.5099	1.0000	
AGF	0.3131	-0.1306	-0.6021	0.0867	0.0572	0.0744	0.0266	0.2547	1.000

ID-Independent directors; EDR-Executive directors' remuneration; EDS-Executive directors shareholding; IA-Independent auditors; CBH-Corporate block holding; PMD-Product market dominance; CS-Company size; AGF-Age of the firm.
Source: Research, 2023

Table 4.14 above shows a statistically significant positive correlation between Tobin Q and independent directors (r = 0.4607, p=< 0.05); Tobin Q and executive directors remuneration (r = 0.1908, p=< 0.05); Tobin Q and executive directors shareholding (r = 0.1990, p=< 0.05); Tobin Q and independent auditor (r = 0.0943, p=< 0.05); Tobin Q and company size (r = 0.2967, p=< 0.05); Tobin Q and age of the firm (r = 0.3131, p=< 0.05). This means that the financial performance of cross listed companies increases when percentage of independent directors, executive directors' remuneration, executive director's shareholding, independent auditors' tenure, company size and age of the firm increases. The study findings reveal

statistically significant negative correlation between Tobin Q and corporate block holding (r = -0.0506, p=< 0.05). The findings indicate that financial performance decreases when corporate block holding increases.

4.7: Research Hypothesis Testing

Diagnostic tests carried out showed that return on assets; Tobin Q; independent directors; executive directors' remuneration; executive directors shareholding, independent auditors; corporate block holding; product market dominance; company size; company age and regulatory framework didn't have unit root test and there was no multicollinearity effect detected in the data. However, the tests detected presence of autocorrelation and heteroscedasticity thus equation 3.2 and 3.3 estimated using FGLS to eliminate the problem and avoid violation of CLRM assumptions. The findings in table 4.15 were used to develop equations 3.2 and 3.3.

4.7.1 FGLS with ROA as the dependent or response variable

This study tested several hypotheses regarding financial performance of cross-listed entities in the EAC region and independent directors, executive directors' compensation, their shareholding, independent auditors, corporate block holding, and product market dominance, all based on ROA as the dependent variable. Table 4.15 below regressed return on assets on independent directors, executive directors' remuneration, executive director's shareholding, independent auditors, corporate block holding, product market dominance, company size and company age.

Table 4.15: FGLS Regression Results using ROA as a Dependent Variable

Coefficients: **generalized least squares**						
Panels: **homoscedastic**						
Correlation: **no autocorrelation**						
Estimated covariances	=	1	Number of obs	=	**90**	
Estimated autocorrelations	=	0	Number of groups	=	**9**	
Estimated coefficients	=	9	Time periods	=	**10**	
			Wald chi2(8)	=	**60.03**	
Log likelihood	=	**172.725**	Prob > chi2	=	**0.0000**	
ROA	**Coefficient**	**Std. err.**	**z**	**P>|z|**	**[95% conf.**	**interval]**
Independent directors	.055575	.0276625	2.01	0.045	.0013575	.1097925
Executive director's remuneration	.0123671	.0060109	2.06	0.040	.000585	.0241483
Executive director shareholding	.4031098	.2045643	1.97	0.049	.002171	.8040484
Independent auditors	-.0070093	.001794	-3.91	0.000	-.010525	-.003493
Corporate block holding	.4417879	.1160641	3.81	0.000	.214306	.6692693
Product market dominance	.0075597	.0484493	0.16	0.876	-.087392	.1025187
Company size	.0201893	.0036731	5.50	0.000	.012992	.0273884
Age of the company	.0118387	.01884	0.63	0.530	-.025071	.0487644
constant	-.6751527	.151432	-4.46	0.000	-.97194	-.3783512

Source: Research, 2023

In relation to hypothesis i, the panel regression results indicated in table 4.15 above indicates that independent directors' effect on return on assets is significant with a positive coefficient of 0.055575 and

a p-value = 0.045 < 0.05 significance level. The findings clearly indicate that there exists a positive significant correlation between independent directors and the ROA of cross-listed companies in the EAC region. The results further reveal that a unit increase in director's independence triggers 0.055575 increase in ROA. The independent directors' findings are consistent with agency theory proposed by Stephen, Ross, and Barry Mitnick (1973). They argued that maintaining boards independence can be used to harmonize executive and board of directors' interests with those of shareholders which leads to operational efficiency and optimal allocation of firm resources resulting in better financial performance and increased returns to the shareholders. The results corroborate with Mihail and Micu (2021); Arora & Soni (2023). These results contradict the findings of earlier studies by Mishra (2023), Onong, Nasih, Anshori, and Harymawan (2022), and Al-Saidi (2021), which indicate that there is no meaningful interaction between the components.

Regarding hypothesis ii, the panel regression findings presented in table 4.15 revealed that executive directors' remuneration effect on ROA is statistically significant with a positive coefficient of 0.0123671 and p-value = 0.040 < 0.05 level of significance. The findings indicate that there a direct significant association between independent directors' compensation and the ROA of cross-listed entities in the EAC region. The results further indicate that one unit increase in executive directors' remuneration contributes 0.0123671 increase in ROA. They argued that executive director's remuneration is directly linked to ROA because if the board of directors and managers perform their responsibilities as required by shareholders to protect their wealth and increase profitability, their payment or remuneration in the form of salaries, fees, bonuses, and allowances for the services provided is expected to increase as a reward for a good performance. The corroborate with the studies carried out by Rehman et al. (2021) & Soni & Singh, (2020) which reported significant association between the variables. The findings disagree with studies done by Sharmin et al. (2020) & Md Zain (2019) which recorded negative relationship between the variables.

Regarding hypothesis iii, table 4.15 indicated that executive directors' shareholding and ROA correlation is statistically favorable at 0.4031098 correlation coefficient with a p-value = 0.049 which is below 5% significance level. The results indicate that there exists a direct correlation between the executive directors' shareholding and ROA of cross-listed companies in the EAC region. Further, the outcome indicated that one unit increase in executive directors' shareholding leads to 0.4031098 increase in ROA. The findings support a study carried out by Ogabo, Ogar & Nuipoko (2021) which advocated for a direct association. The results in this study differ from studies carried out by Saidu & Gidado (2018), Shan (2017) & Sani (2020) that reported insignificant relationship between the variables.

Regarding hypothesis iv in table 4.15, the panel regression results on independent auditors and ROA is statistically significant with a negative coefficient of -0.0070093 and a p-value of 0.0000 which is less than 5% significance level. The findings reveal that there exists an inverse correlation between independent auditors and the ROA of cross-listed companies in the EAC region. Further the results show that one unit increase in auditors' independence measured by audit tenure leads to 0.0070093 decrease in ROA. This clearly indicates that when a company engages an audit firm for long periods of time, independence of the auditor reduces, which negatively affects its performance. The findings are inconsistent to studies carried out by Rahman, Meah, and Chaudhory (2019) & Meah, Sen & Ali (2021) which supported positive association between the variables.

Regarding hypothesis v in table 4.15 relating to the effect of corporate block holding on ROA, the regression results shows that corporate block holding, and ROA association is significant with a positive coefficient of 0.4417879 and a p-value = 0.0000 which is below 0.05 significance level. The findings support that there exists a direct correlation between the corporate block holding and ROA of companies cross-listed at EAC region. Further, the study found that one unit increase in corporate block holding triggers 0.4417879 increase in ROA. The findings correspond to studies by Abedin et al. (2022), Tanui,

2021 & Huang & Lu (2020) but contradicts studies by Kajim (2020) which advocated for negative association between the variables.

Regarding hypothesis vi regression findings in table 4.15, the results shows that product market dominance and ROA association is statistically insignificant with a positive coefficient of 0.0075597 and p-value = 0.876 > 0.05. The results clearly show that there exists a positive insignificant relationship between product market dominance and ROA of companies cross-listed in the EAC region. The findings also reveal that one unit increase in product market dominance contributes 0.0075597 increase in ROA. The findings in this study contradicts resource dependence theory founded by Pfeffer (1972) which stipulates that as the company's market share and reputation increase, revenues increase, which contributes to the increase in profits resulting to increase in the company's internal financing. This reduces the entity's pressure for external borrowing, reducing costs and thus increasing financial performance. The findings correspond to studies done by Mubeen et al. (2022) & Shin & Lee (2023). The results are inconsistent with studies by Königsgruber et al. (2021) & Thu & Minh (2022) which reported negative association between the variables.

The panel regression results relating to the company size and company age in table 4.15 above indicate that the company size and ROA correlation is statistically significant reporting a positive coefficient of 0.0201893 with a p-value = 0.0000 < 0.05 confirming that there exists a positive assocition between company size and ROA of companies cross-listed in the EAC region. The results further indicate that one unit increase in company size leads to a 0.0201893 increase in ROA. On company age the regression results show that the correlation of company's age and ROA of entities cross-listed in EAC region is statistically unfavorable with a coefficient of 0.0118387 and p-value = 0.530 > 0.05. The results further show that one unit rise in company's age leads to 0.0118387 increase in ROA.

Table 4.15 indicate the Wald Chi square value of 60.03, log likelihood of 172.725 and p-value = 0.0000 < 0.05 level of significance. This means that jointly all predictor variables that includes independent directors; executive directors' remuneration; executive directors shareholding, independent auditors; corporate block holding; product market dominance; entities size and age are statistically significant. This implies that jointly all explanatory variables considered in this study affect ROA which measures financial performance. The general panel multiple regression equation was as follows. ROA = α + 0.055575 independent directors + 0.0123671 executive directors' remuneration + 0.4031098 executive directors shareholding – 0.0070093 independent auditors + 0.4417879 corporate block holding + 0.0075597 product market dominance + 0.0201893 company size + 0.0118387 company age + $\mathcal{E}_{it}$

4.7.2 FGLS using Tobin Q as the response variable.

This study examined various hypotheses on the effect on the financial performance of cross-listed entities in the EAC region and Tobin Q, the dependent variable by the explanatory variables such as independent directors, executive directors' remuneration, executive director's shareholding, independent auditors, corporate block holding and product market dominance. Table 4.16 below regressed Tobin Q on independent directors, executive directors' remuneration, executive director's shareholding, independent auditors, corporate block holding, product market dominance, company size and company age.

Table 4.16: FGLS Regression Results using Tobin Q as a Dependent Variable

Coefficients:	generalized least squares				
Panels:	homoscedastic				
Correlation:	no autocorrelation				
Estimated covariances	=	1	Number of obs	=	90
Estimated autocorrelations	=	0	Number of groups	=	9
Estimated coefficients	=	9	Time periods	=	10

			Wald chi2(8)	=	135.85	
Log likelihood	= 32.26563		Prob > chi2	=	0.0000	
Tobin Q	**Coefficient**	**Std. err.**	**z**	**P>|z|**	**[95% conf. interval]**	
Independent directors	.4561271	.1317277	3.46	0.001	.197945	.714308
Executive director's remuneration	.1733399	.028623	6.06	0.000	.117238	.229441
Executive director's shareholding	2.893312	.974127	2.97	0.003	.984057	4.80256
Independent auditors	-.003503	.00854	-0.41	0.682	-.020249	.013240
Corporate block holding	.664648	.552692	1.20	0.229	-.418609	1.74790
Product market dominance	-.089276	.230713	-0.39	0.699	-.541468	.362914
Company size	.0905005	.017491	5.17	0.000	.056218	.124782
Age of the company	.604170	.0897154	6.73	0.000	.428334	.780009
constant	-3.55533	.7211143	-4.93	0.000	-4.96869	-2.14197

Source: Research, 2023

In relation to hypothesis i, the panel regression results in table 4.16 indicates that independent directors' effect on Tobin Q is significant with positive coefficient of 0.4561271 and a p-value = 0.001 < 0.05 significance level. The findings show that there exists a positive connection between independent directors and Tobin Q of cross-listed entities in the EAC region. The results further reveal that a unit increase in director's independence leads to 0.4561271 increase in Tobin Q. The findings are corroborated with Mihail and Micu (2021), Niskanen (2012), and Arora & Soni (2023). These results contradict the findings of earlier studies by Mishra (2023), Onong, Nasih, Anshori, and Harymawan (2022), and Al-Saidi (2021), which indicate that there is no meaningful interaction between the components.

Regarding hypothesis ii, the panel regression findings presented in table 4.16 indicated that executive directors' remuneration effect on Tobin Q is statistically significant with a positive coefficient of 0.1733399 and p-value = 0.000 < 0.05 level of significance. The findings indicate there exists a direct significant association between independent directors' remuneration and the Tobin Q of cross-listed companies in the EAC region. This means that one unit increase in executive directors' remuneration contributes 0.1733399 increase in Tobin Q. This corroborated with the studies carried out by Rehman et al. (2021) & Soni & Singh, (2020) which reported significant association between the variables. The findings disagree with studies done by Sharmin et al. (2020) & Md Zain (2019) which recorded negative relationship between the variables.

Regarding hypothesis iii, table 4.16 revealed that executive directors' shareholding and Tobin Q association is statistically significant with a positive correlation coefficient of 2.893312 and a p-value = 0.003 which is within 5% significance level. The results reported that there exists a positive significant correlation between executive directors' shareholding and Tobin Q of cross-listed companies in the EAC region. Further, the findings show that one unit increase in executive directors' shareholding triggers a 2.89312 increase in Tobin Q. The findings corroborate a study carried out by Ogabo, Ogar & Nuipoko (2021) which advocated for a direct association. The results in this study differ from studies carried out by Saidu & Gidado (2018), Shan (2017) & Sani (2020) that reported insignificant relationship between the variables.

Regarding hypothesis iv in table 4.16, the panel regression results on independent auditors and Tobin Q associations is insignificant with a weak negative coefficient of -0.0035032 and a p-value = 0.682 which is above 5% significance level. The findings indicated that there exists an inverse insignificant association of independent auditors and Tobin Q of cross-listed entities in the EAC region. Further the results show that one unit increase in auditors' independence measured by audit tenure leads to 0.0035032 decrease in

Tobin Q. This clearly indicates that when a company engages an audit firm for long periods of time, independence of the auditor reduces, which negatively affects its performance. The findings are inconsistent to studies carried out by Rahman, Meah, and Chaudhory (2019) & Meah, Sen & Ali (2021) which reported positive association between the variables.

Regarding hypothesis v in table 4.16 relating to corporate block holding and Tobin Q association is statistically unfavorable with a positive coefficient of 0.664648 and a p-value = 0.229 which is above 0.05 significance level. The findings support a direct insignificant association between corporate block holding and Tobin Q of companies cross-listed in the EAC region. Further, the study found that a unit increase in corporate block holding leads to Tobin Q's increase of 0.664648. The regression results disagree with studies by Huang & Lu (2020), Panda & Leepsa (2018) & Eluyela et al. (2020) which recorded significant and positive interaction between the variables. The findings are inconsistent to studies carried out by Kajim (2020) which advocated for negative relationship between corporate block holding and financial performance.

Regarding hypothesis vi regression findings in table 4.16, the results indicate that product market dominance and Tobin Q association is insignificant with a negative coefficient of -0.089276 and p-value of 0.699. The results clearly show that there exists a negative insignificant relationship between product market dominance and Tobin Q of companies cross-listed in the EAC region. The findings also reveal that one unit increase in product market dominance leads to 0.089276 decrease in Tobin Q. The findings agree with studies done by Königsgruber et al. (2021) & Thu & Minh (2022) which reported negative relationship between product market dominance and financial performance. The findings don't support studies done by Babar & Habib (2022) & Mubeen et al. (2022) which reported positive and significant association between the variables.

The panel regression results relating to the company size and company age in table 4.16 above indicates that the relationship between company size and Tobin Q is statistically significant with a positive coefficient of 0.0905005 with a p-value = 0.0000. The report clearly confirms that there exists a positive relationship between company size and Tobin Q of companies cross-listed in the EAC region. The results further indicate that one unit increase in company size leads to a 0.0905005 increase in Tobin Q. On company age the regression results show that the relationship between company's age and Tobin Q of companies cross-listed in EAC region is statistically significant with a positive coefficient of 0.6041704 and p-value = 0.0000. The results further show that a unit increase in company's age leads to 0.6041704 increase in Tobin Q.

Table 4.16 indicate the Wald Chi square value of 135.85, log likelihood of 32.26563 and p-value = 0.0000 which is below 5% level of significance. This means that jointly all predictor variables that includes independent directors; executive directors' remuneration; executive directors shareholding, independent auditors; corporate block holding; product market dominance; entities size and age are statistically significant. This implies that jointly all explanatory variables considered in this study influence Tobin Q. The general panel multiple regression equation was as follows. Tobin Q = α + 0.4561271 independent directors + 0.1733399 executive directors' remuneration + 2.893312 executive directors shareholding – 0.0035032 independent auditors + 0.664648 corporate block holding – 0.089276 product market dominance + 0.0905005 company size + 0.6041704 company age + $\mathcal{E}_{it}$

4.8 Testing Moderation Effect

The primary aim was to investigate how the regulatory framework, as measured by the regulatory compliance index affects the financial performance of entities cross-listed at East African Community by mediating corporate governance variables and financial performance associations. The moderator variable is an extra variable that influences the connection between the predictor and responder variables. This is

when the moderation effect occurs. To assess moderation effect of regulatory framework on corporate governance mechanisms and financial performance, three criteria were used: no moderation was used when the interaction term is not significant, indicating an unchanged relationship; partial moderation was used when both the interaction term and independent variable's main effect are significant; full moderation was used when the interaction term is significant, but independent variable's main effect is not, showing the relationship exists only at certain moderator levels.

According to the null hypothesis, there is no significant effect of regulatory framework on the corporate governance and the financial performance association of entities trading financial instruments in the East African Community Region. The regulatory framework moderation effect on the CG mechanisms and financial performance relationships was evaluated using the Whisman and McClelland (2005) moderation test. There are two parts to it: in the first, the regulatory framework and other independent factors are assessed as an explanatory variable. The moderation variable is regarded as an explanatory variable if the regression coefficient is significant at 5%. The second stage is to incorporate the regulatory framework's interaction effect with each study variable if the coefficient is deemed statistically insignificant in stage 1. The equations 3.4, 3.5, 3.6, and 3.7 are specified below based on the regression results.

4.8.1 FGLS Regression Results with Regulatory Framework as an Independent Variable and ROA as a Dependent Variable

In step one the regulatory compliance index will be entered as a predictor or explanatory variable. The no-difference hypothesis was that regulatory compliance index is an explanatory variable. The regression results will be used to specify equations 3.4 & 3.5. The decision criteria were that if coefficient of the regulatory compliance index variable was significant the regulatory compliance index is an explanatory variable, otherwise if coefficients of RCI were insignificant it is a moderating variable.

Table 4.17: Testing Regulatory Compliance Index as an Explanatory Variable.

Coefficients: generalized least squares						
Panels: homoscedastic						
Correlation: no autocorrelation						
Estimated covariances	= **1**		Number of obs	= **90**		
Estimated autocorrelations	= **0**		Number of groups	= **9**		
Estimated coefficients	= **10**		Time periods	= **10**		
			Wald chi2(8)	= **62.84**		
Log likelihood	= **173.5609**		Prob > chi2	= **0.0000**		
ROA	**Coefficient**	**Std. err.**	**z**	**P>|z|**	**[95% conf.**	**interval]**
Independent directors	.0689137	.02926	2.35	0.019	.011550	.126276
Executive director's remuneration	.0133179	.00600	2.22	0.026	.001557	.025078
Executive director's shareholding	.285649	.221931	1.29	0.198	-.149328	.720626
Independent auditors	-.007261	.001788	-4.06	0.000	-.010765	-.003757
Corporate block holding	.292212	.162734	1.80	0.073	-.026740	.611166
Product market dominance	.0016463	.048216	0.03	0.973	-.092857	.096149
Company size	.0233321	.00437	5.34	0.000	.014767	.031897
Age of the company	.0124699	.01867	0.67	0.504	-.024126	.04906
Regulatory compliance index	.060538	.04660	1.30	0.194	-.03080	.151882
Constant	-.620345	.15585	-3.98	0.000	-.92581	-.31488

Source: Research, 2023

Table 4.17 above involves testing regulatory compliance as an explanatory variable. The findings indicated that with a coefficient ($\mathcal{B}$) of independent directors of 0.0689137 and p-value = 0.019, executive directors' remuneration of 0.0133179 and p-value = 0.026, independent auditors of -0.0072616 and p-value = 0.000, corporate block holding of 0.2922127 and p-value = 0.053 and company size with a coefficient ($\mathcal{B}$) = 0.0233321 and p-value = 0.000 were statistically favorable at 5% level of significance. The results further indicates that with a coefficient ($\mathcal{B}$) of executive director's shareholding of 0.285649 and p-value = 0.198, product market dominance of 0.0016463 and p-value = 0.973, company age of 0.0124699 and p-value = 0.019 and regulatory compliance with a coefficient ($\mathcal{B}$) = 0.0605381 and p-value = 0.194 were unfavorable at 5% level of significance.

In table 4.17 indicate the Wald Chi square value of 62.84, log likelihood of 173.5609 and p-value = 0.0000< 5% level of significance. The regression coefficients were used to develop panel multiple regression equation 3.4 as follows. ROA = -0.6203456 + 0.0689137 independent directors + 0.0133179 executive directors' remuneration + 0.285649 executive directors shareholding – 0.0072616 independent auditors + 0.29221227 corporate block holding + 0.0016463 product market dominance + 0.0233321 company size + 0.0124699 company age + 0.0605381 regulatory framework + $\mathcal{E}_{it}$.

The coefficient of regulatory compliance 0.0605381, p-value = 0.194 was insignificant at 5% level of significance. In line with MacKinnon et.al., (2002), argued that in a case where moderator variable is statistically unfavorable, the no-difference hypothesis that regulatory compliance is a predictor variable is not accepted and the variable is treated as a moderating variable. In this study, regulatory compliance index is treated as a moderator variable on corporate governance mechanisms and ROA. This requires inclusion of regulatory compliance index variable interactions effect in the model.

4.8.2 Moderating Effect of Regulatory Framework on the relationship between Corporate Governance Mechanisms and ROA.

This study aimed to examine how the regulatory compliance index affects corporate governance variables and financial performance correlation for cross-listed entities in the EAC area. Whisman and McClelland's (2005) was used to test moderation effect.

Table 4.18: Moderating Effect of Regulatory Compliance Index

Coefficients: generalized least squares						
Panels: homoscedastic						
Correlation: no autocorrelation						
Estimated covariances = 1			Number of obs = **90**			
Estimated autocorrelations = **0**			Number of groups **=** **9**			
Estimated coefficients = **14**			Time periods = **10**			
			Wald chi2(8) = **48.84**			
Log likelihood = **169.237**			Prob > chi2 = **0.0000**			
ROA	**Coefficient**	**Std. err.**	**z**	**P>|z|**	**[95% conf.**	**interval]**
Independent directors	.0183942	.1718802	0.11	0.915	-.3184847	.355273
Executive director's remuneration	.0387955	.0577926	0.67	0.502	-.074476	.1520669
Executive director's shareholding	-12.87188	4.88816	-2.63	0.008	-22.4525	-3.29124
Independent auditors	-.017134	.009767	-1.75	0.049	-.036277	.002008
Corporate block holding	1.393142	.6341167	2.20	0.028	.150295	2.63598
Product market dominance	-.621666	.2862892	-2.17	0.030	-1.18278	-.0605497
Regulatory compliance index	.150064	1.31667	0.11	0.040	-2.43056	2.73069
ID*RCI	.003665	.2110745	0.02	0.986	-.410032	.417364
IDR*RCI	-.050755	.064403	-0.79	0.031	-.176984	.0754724
EDS*RCI	14.5449	5.31859	2.73	0.006	4.120701	24.96922
IA*RCI	.016054	.012118	1.32	0.015	-.007698	.0398061
CBH*RCI	-.1013067	.989144	-0.10	0.918	-2.03999	1.837381
PMD*RCI	.8125781	.390761	2.08	0.038	.0466997	1.578456

Constant	-1.316637	.983266	-1.34	0.181	-3.24380	.6105293

Source: Research, 2023

Table 4.18 above involves testing regulatory compliance index as a moderating variable which requires inclusion of regulatory compliance variable interactions effect in the model. The findings indicated that with a coefficient ($\mathcal{B}$) of executive director's shareholding of -12.87188 and p-value = 0.008, product market dominance of -0.6216662 and p-value = 0.030, independent auditors of -0.0171349 and p-value = 0.049 and corporate block holding of 1.393142 and p-value = 0.028 were statistically favorable at 5% level of significance. Further, it was indicated that with a coefficient ($\mathcal{B}$) of independent directors of 0.0183942 and p-value = 0.915, executive directors' remuneration of 0.0387955 and p-value = 0.502 and regulatory framework of 0.1500641 and p-value = 0.0409 were statistically favorable at 5% level of significance.

The findings show that regulatory framework had insignificant positive moderating effect on independent directors and financial performance associations as indicated by coefficient of 0.0036656 and p-value = 0.986 tested at 5% level of significance. The results also show that regulatory framework had insignificant and inverse moderating effect on corporate block holding and financial performance correlation as indicated by coefficient of -0.1013067 and p-value = 0.918. The findings revealed absence of moderation effect on independent directors and corporate block holding variables because the interaction term coefficient was insignificant. At 5% level of significance, the report shows that regulatory compliance index had a significant positive influence on executive director's shareholding, independent auditors, product market dominance and financial performance connections with coefficients of 14.54496, 0.016054, 0.8125781 and p-value 0.006, 0.015 and 0.038 respectively. The results further indicated that regulatory framework measured by regulatory compliance index partially moderates executive director's shareholding, independent auditors and product market dominance because these variables and interaction term variable were significant at 5% significance level. Further, the regression results indicate that

regulatory framework had a favorable negative effect on executive directors' remuneration and ROA associations. This clearly indicated that regulatory framework fully moderates executive directors' remuneration variable because interaction coefficient was significant while the predictor variable coefficient was not significant.

The panel regression analysis presented in table 4.18 indicates the Wald Chi square value of 48.84, log likelihood of 169.237 and p-value = 0.0000 which is below 5% level of significance. The regression coefficients were used to develop panel multiple regression equation 3.6 as follows. ROA = -1.316637 + 0.0183942 independent directors + 0.0387955 executive directors' remuneration -12.87188 executive director's shareholding – 0.0171349 independent auditors + 1.3931142 corporate block holding – 0.6216662 product market dominance + 0.1500641 regulatory framework + 0.0036656 ID * RCI- 0.0507559 EDR * RCI + 14.54496 EDS * RCI + 0.016054 IA * RCI – 0.1013067 CBH * RCI + 0.8125781 PMD * RCI + E_{it}.

4.8.3 FGLS Regression Results with Regulatory Framework as an Independent Variable and Tobin Q as a Dependent Variable

In step one the regulatory compliance index will be entered as a predictor or explanatory variable. The null hypothesis is that regulatory framework is an explanatory variable. The regression results will be used to specify equation 3.5. The decision criteria were that if coefficient of the regulatory compliance index variable was significant the regulatory compliance index is an explanatory variable.

Table 4.19: Testing Regulatory Compliance Index as an Explanatory Variable.

Coefficients: generalized least squares						
Panels: homoscedastic						
Correlation: no autocorrelation						
Estimated covariances = **1**			Number of obs = **90**			
Estimated autocorrelations = **0**			Number of groups = **9**			
Estimated coefficients = **10**			Time periods = **10**			
			Wald chi2(8) = **235.80**			
Log likelihood = 48.75444			Prob > chi2 = **0.0000**			
Tobin Q	**Coefficient**	**Std. err.**	**z**	**P>|z|**	**[95% conf.**	**interval]**
Independent directors	.1967834	.1171214	1.68	0.093	-.0327702	.426337
Executive director's remuneration	.1548526	.0240114	6.45	0.000	.107791	.2019141
Executive director's shareholding	5.1771	.8881185	5.83	0.000	3.436419	6.91778
Independent auditors	.001402	.0071551	0.20	0.845	-.012621	.0154257
Corporate block holding	3.57283	.651226	5.49	0.000	2.296457	4.849216
Product market dominance	.0256974	.192953	0.13	0.894	-.352483	.4038783
Company size	.0293947	.0174878	1.68	0.093	-.004880	.0636702
Age of the company	.5918968	.0747218	7.92	0.000	.445444	.7383489
Regulatory compliance index	-1.17704	.186502	-6.31	0.000	-1.54257	-.811502
Constant	-4.62095	.623685	-7.41	0.000	-5.84335	-3.398549

Source: Research, 2023

Table 4.19 above involves testing regulatory compliance as an explanatory variable. The findings indicated that with a coefficient ($\mathcal{B}$) of executive directors' remuneration of 0.1548526 and p-value =

0.000, executive director's shareholding of 5.1771 and p-value = 0.000, corporate block holding of 0.3.572836 and p-value = 0.000, company age of 0.5918968 and p-value = 0.000 and regulatory framework of -1.177041 and p-value = 0.000 were statistically significant at 5% level of significance. The results further indicates that with a coefficient ($\mathcal{B}$) of independent directors of 0.1967834 and p-value = 0.093, product market dominance of 0.0256974 and p-value = 0.894, company size of 0.0293947 and p-value = 0.093 were unfavorable or insignificant at 5% level of significance.

The coefficient of regulatory compliance -1.177041 and p-value = 0.000 was statistically significant at 5% level of significance. In line with MacKinnon et.al (2002), argued that in a case where moderator variable is statistically significant, the study fails to validate the no-difference hypothesis that regulatory compliance is an explanatory variable, and the variable is treated as an explanatory variable. In this regard regulatory compliance is treated as an explanatory variable when response variable is Tobin Q. This requires inclusion of regulatory framework variable as a predictor variable.

In table 4.19 indicate the Wald Chi square value of 235.80, log likelihood of 48.75444 and p-value = 0.0000 < 5% level of significance. The regression coefficients were used to develop panel multiple regression equation 3.5 as follows. Tobin Q = -4.62095 + 0.1967834 independent directors + 0.1548526 executive directors' remuneration + 5.1771 executive directors shareholding + 0.001402 independent auditors + 3.572836 corporate block holding + 0.0256974 product market dominance + 0.0293947 company size + 0.5918968 company age – 1.177041 regulatory framework + E_{it}.

Table 4.20: Summary of Hypothesis Tests (ROA as a response variable)

Hypothesis Number	Causal Relationship	Reject H_0 or Fail to reject H_0
i.	**H_{01}**: Independent directors don't have a significant effect on financial performance of the publicly cross-listed companies at the East African Community Region.	**Reject H_0**
ii.	**H_{02}**: Executive director's remuneration doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Reject H_0**
iii.	**H_{03}**: Executive director's shareholding doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Reject H_0**
iv.	**H_{04}**: Independent auditors don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region	**Reject H_0**
v.	**H_{05}**: Corporate block holdings don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Reject H_0**
vi.	**H_{06}**: Product market dominance doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Fail to reject H_0**
vii.	**H_{07}:** Regulatory framework doesn't have a significant effect on the association between corporate governance mechanisms and financial performance of companies cross-listed in the East African Community Region.	**Fail to reject H_0**

Source: Research, 2023

Table 4.21: Summary of Hypothesis Tests (TOBIN Q as a response variable)

Hypothesis Number	Causal Relationship	Reject H_0 or Fail to reject H_0
i.	**H_{01}**: Independent directors don't have a significant effect on financial performance of the publicly cross-listed companies at the East African Community Region.	**Reject H_0**
ii.	**H_{02}**: Executive director's remuneration doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Reject H_0**
iii.	**H_{03}**: Executive director's shareholding doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Reject H_0**
iv.	**H_{04}**: Independent auditors don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region	**Fail to reject H_0**
v.	**H_{05}**: Corporate block holdings don't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Fail to reject H_0**
vi.	**H_{06}**: Product market dominance doesn't have a significant effect on financial performance of the publicly cross-listed companies at East African Community Region.	**Fail to reject H_0**
vii.	**H_{07}:** Regulatory framework doesn't have a significant effect on the association between corporate governance mechanisms and financial performance of companies cross-listed in the East African Community Region.	**Reject H_0**

Source: Research, 2023

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a concise overview of the study's findings, the derived conclusions, recommendations, and suggested areas for future studies.

5.2 Summary of the Findings

Numerous public and private organizations have invested a substantial number of resources to create a business-friendly climate in the EAC area. The cross-listed businesses in these markets have seen a sharp fall in their profitability and liquidity, despite large investments made by the partners in the EAC region to support securities integration and enhance market infrastructure. Examples of this include an increase in profit warnings, company closures, mergers and acquisitions, and reorganizations. This study looked at the corporate governance practices and financial performance of EAC listed businesses. The study employed a non-experimental research design. A survey was carried out between 2013 and 2022 on nine East African Community (EAC) companies that are listed on multiple stock markets. According to the descriptive analysis, companies had a positive average Return on Assets (ROA) of 0.05724, though some experienced losses. Tobin Q averaged 0.80362, indicating overall financial success, but a few firms struggled. Independent director's percentages were very high on average in cross-listed companies boards, and executive directors held small ownership stakes in cross-listed companies. Senior directors' compensation varied significantly, and audit firm tenure averaged 4.47 years. Corporate block holding was very high on average, and product market dominance averaged 0.1111 in cross-listed companies. Most firms were very compliant with regulatory frameworks, with an average compliance rate of 80.71%.

The first objective was to establish the effect of independent directors on the financial performance of companies listed in the East African Community Region. The independent directors assessed the fraction

of independent directors on corporate boards. Using the FGLS estimation approach, this study discovered a strong and direct effect of the independent directors on the financial performance as determined by ROA (p-value = 0.045) <0.05 and Tobin Q (p-value = 0.001) <0.05. The degree of board independence and the financial performance of the company are clearly correlated.

The second particular purpose was to establish how executive director compensation affects financial performance of companies listed on different marketplaces in the East African Community Region. By taking the natural logarithm of the amount of the executive directors' total compensation that includes bonuses, allowances, and salary, the study's findings demonstrate a substantial and favorable correlation between executive director salary and the financial performance of the organization as determined by ROA (p-value = 0.040) <0.05 and Tobin's Q (p-value = 0.045) <0.000. The findings indicate that the company's improved financial performance is greatly influenced by the directors' increased compensation.

Thirdly objective was to determine the effect of shareholdings of the executive director on the financial performance of cross-listed entities in the East African Community Region. The executive director's stake was determined by comparing the number of shares held by the CEO or the managing directors. The results demonstrate a substantial impact of the ownership share held by the executive directors on the financial performance of the business as determined by ROA (p-value = 0.049) <0.05 and Tobin Q (p-value = 0.003) <0.05. The research indicates that when the amount of money invested by executive shareholders increase, the entities financial performance increases.

The fourth purpose was to establish whether the financial performance of cross-listed companies in the East African Community Region was affected by independent auditors. When assessing the auditors' independence, the duration of their employment by the company to carry out audits and provide assurance services was considered. This study has demonstrated a significant unfavorable effect on the financial

success by the independent auditors, as measured by ROA (p-value = 0.000) <0.05. After analyzing the data, Tobin Q (p-value = 0.0682) >0.05 found a very weak negative insignificant effect of independent auditors on the financial success.

The fifth objective was to determine the effect of corporate block holding on the financial performance of the companies listed on the East African Community Region. The corporate block holding was determined by taking the portion of shares held by domestic and local institutions and determining that percentage. The report presented a statistically significant positive effect of corporate block holding on the financial performance as determined by return on assets (p-value = 0.000) <0.05. A high correlation between the components is also demonstrated by the data. Upon reviewing the study, corporate block holding has a positive but statistically insignificant effect on financial performance measured by Tobin Q (p-value = 0.229) >0.05.

The sixth aim was to establish the effect of dominance of the product market on the financial performance of cross-listed companies in the East African Community Region's. Product market domination was determined by dividing a company's net sales of a given product by the net sales of the entire business. The study's findings show a favorable, but statistically insignificant effect of product market dominance on the financial performance based on ROA (p-value = 0.876) >0.05. The study's results, which indicate a negative and statistically insignificant effect of the product market dominance on the financial performance, are consistent with Tobin Q's assessment (p-value = 0.699) >0.05

To determine the regulatory framework moderation effect on the correlation between CG mechanisms and the financial performance of companies cross-listed in East African Community Region. The regulatory framework was based on companies' regulatory compliance index. The findings reported that the moderating effect of regulatory framework on the association between corporate governance

mechanisms such as executive directors' remuneration (p-value = 0.031) <0.05, executive director's shareholding (p-value = 0.006) <0.05, independent auditors (p-value = 0.015) <0.05, and product market dominance (p-value = 0.038) <0.05 and ROA which measures financial performance is statistically significant. The study also established that there exists positive insignificant moderating effect of regulatory framework on the relationship between independent directors (p-value = 0.986) >0.05, corporate block holding (p-value = 0.918) >0.05, and financial performance indicated by ROA.

5.3 Conclusions of the Study

The focus of this study was the hypothesis development, collection of data, and empirical testing of hypotheses to determine whether to reject them. These methodological considerations support the present body of information by showing that the implementation of corporate governance improves a company's financial performance, as this study has proved. This study finds that greater director independence has a positive impact on the financial performance of cross-listed companies in the EAC region, as measured by both ROA and Tobin Q. This finding contradicts the initial hypothesis, which holds that independent directors do not significantly affect financial performance. The study's findings support the agency theory's claim that increased director independence helps to minimize agency conflicts and matches management's and shareholders' interests. In response to the second hypothesis, which looks at the effect of executive director compensation on the financial performance, this study discovered that executive director compensation directly and favorably affects the financial performance of the company as indicated by ROA and Tobin Q. The results support the concept of agency theory, which suggests that paying executives more would drive them and that giving them a larger stake in the company would help handle agency issues.

This study concluded that a higher executive director's shareholding had a direct or positive impact on the company's financial success as assessed by ROA and Tobin Q, based on the third hypothesis, which states

that there is no significant effect of executive director's shareholding on the financial performance. The study concludes that longer auditor tenure lowers a company's financial performance; consequently, companies with shorter or standard term engagement periods outperform those with longer engagement periods. The fourth hypothesis, on the other hand, stated that independent auditors don't have a significant effect on the financial performance. This analysis concludes that higher block holding significantly contributes to increased financial performance measured by ROA, in line with hypothesis five, which states that corporate block holding has no significant impact on financial performance. This analysis presented no direct effect of increased product market domination and improved financial performance, in line with hypothesis six, which states that there is no substantial effect of product market dominance on the financial performance.

Furthermore, the relationships between corporate governance and financial performance have been impacted by the addition of the regulatory environment as a moderating component. regulatory frameworks' moderating influence on financial performance and corporate governance connections. This study documented that regulatory framework moderates the relationship when ROA is used to measure financial performance, but it does not moderate the association between Tobin Q and corporate governance mechanisms when Tobin Q is used as a statistically significant explanatory variable. As a result, having an effective regulatory framework improves business financial performance and operational structures.

Finally, the findings made it abundantly evident that various financial performance metrics should be considered because they react differently to corporate governance practices. The following findings support this conclusion: Corporate block holding has a positive and significant effect on ROA and a positive insignificant effect on Tobin Q; product market dominance reported a positive and insignificant

effect on ROA and a negative insignificant impact on Tobin Q; independent auditors have an inverse effect on ROA and an insignificant relationship on Tobin Q.

5.4 Policy Implications and Recommendations

The study findings have several contributions to the company's corporate board of directors, management, regulators, and policy makers. This study's findings and conclusion provide the following recommendations for the policy; Firstly, it was determined that independent directors had a substantial and direct impact on the financial performance of organizations. The results of the hypothesis test revealed that an increase in the number of independent directors on boards is positively correlated with increases in enterprises' financial performance. This study proposes that capital market authorities and other policy makers such as CBK, IRA & RBA should collaborate and enhance the policy on board independence. This can be achieved by issuing regulations that provide guidelines and policies to reinforce the importance of board independence. For publicly cross-listed companies in the EAC, a robust practice would be to strengthen the presence and influence of independent directors, particularly in audit committees and risk oversight functions. By doing so, listed firms will be able to attract committed investors through increased transparency, improved decision-making, and enhanced protection of shareholders' wealth. The code of corporate governance highlights the need for independent directors who are appointed as executive directors adhering to legal and regulatory requirements while fulfilling their obligations.

It was determined that the remuneration of executive directors had a statistically significant impact on the financial performance of the organizations. The compensation, including wages, bonuses, and allowances, provided to executives was determined to have a substantial and beneficial impact on the financial performance of the firms. Consequently, this study portends that shareholder, acting through the board of directors, establish explicit policies and align compensation for executive directors with that of

their counterparts in other companies. This approach aims to incentivize them and mitigate conflicts of interest. Providing executive directors with rich compensation can serve as an effective tactic for overseeing and regulating the actions of managers and top leadership, particularly regarding their tendency to grant themselves excessive salaries, substantial allowances, and lavish fringe benefits. Publicly cross-listed companies should develop remuneration packages that balance short-term performance with long-term value creation, incentivizing executives to focus on sustainable financial performance. It is crucial for capital market regulators and policymakers to prioritize the grounding of effective corporate governance procedures, specifically in relation to the transparent disclosure of senior directors' remuneration.

Thirdly, it was discovered that the ownership of shares by the executive director had a notable and beneficial impact on the company's financial performance. There was a positive and significant correlation between the percentage of shares held by the chief executive officer, chairman, or managing directors and the financial success of the companies. Hence, this study recommends that policy makers should establish explicit and efficient guidelines allowing executive directors and other employees to receive multiple share options. Subsequently, these individuals should have the opportunity to subscribe for shares in the company after a specified period, granting them the right to possess shares at a predetermined price. Additionally, it is crucial for these individuals to fully disclose their ownership of shares. The opportunity to purchase shares affords customers the possibility of becoming shareholders in the company, so enabling them to reap the benefits of receiving dividends and capital gains. The strategy is to drive the company towards profitability, enabling shareholders to receive dividend payments at the conclusion of the accounting period, so enhancing overall shareholder returns.

Fourth, it was discovered that the autonomy of auditors had a detrimental and statistically significant impact on the financial performance of the company, as assessed by the return on assets (ROA). The

duration of a company's engagement with a specific audit firm for auditing and assurance services has a notable adverse impact on financial performance. This study suggests that policy makers, such as the Capital Markets Authorities (CMA) and the Institute of Certified Public Accountants of Kenya (ICPAK), regulatory bodies in the EAC should enforce stricter rules on auditor rotation and independence. Companies could adopt a five-year auditor rotation policy to prevent over-familiarity between auditors and management, ensuring objectivity in financial audits. Cross-border auditor regulation should be harmonized across EAC member countries.

Fifth, it was determined that corporate block holding had a favorable and statistically significant impact on companies' financial performance, as assessed by return on assets (ROA). The study revealed a favorable and significant correlation between the ownership of shares by domestic and local institutions in listed firms and the financial performance of these companies. Consequently, this study suggests that management, market regulators, and policy makers should establish regulatory guidelines to enhance market efficiency and establish a conducive environment for institutions to obtain market information, secure funding for their investments, and protect their investments. Publicly cross-listed companies should encourage responsible block holding that fosters accountability and long-term stability rather than short-term gains. EAC regulators should encourage disclosure of block holder agreements and voting patterns to ensure transparency in governance.

Sixth, the study revealed that the regulatory framework had a detrimental and statistically significant impact on financial performance, as evaluated by Tobin Q. The study found that the regulatory framework, as evaluated by the regulatory compliance index, had a detrimental impact on financial performance when used as an explanatory factor. Consequently, this study suggests that policy makers should implement stringent restrictions that directly impact organizations' performance. Additionally, it is recommended that important stakeholders be actively engaged in the formulation of policy guidelines. Additionally, this

study discovered that the regulatory framework plays a role in moderating the connection between corporate governance mechanisms and financial performance. This study suggests that policy makers should exercise careful consideration while formulating regulations, aiming to enhance their effectiveness in facilitating managerial functions within firms, ultimately leading to improved company performance.

Publicly cross-listed companies in the EAC face different regulatory environments, making compliance challenging. A harmonized regulatory framework would simplify compliance and allow for more uniform corporate governance practices. EAC regulatory bodies should collaborate to create a unified corporate governance code that applies across member states, simplifying requirements for cross-listed firms. This would include standardized reporting requirements, governance practices, and disclosure rules, making cross-listing more attractive and less costly.

5.5 Contributions to Knowledge

To comply with EAC regulations, corporate governance framework adoption is necessary. This research does emphasize the necessity for businesses listed in several EAC countries to enhance their governance framework by taking a more thorough approach. This study analyzed the impact of regulatory frameworks on connections of corporate governance and financial performance. The findings have improved our understanding of CG procedures in several ways. First, the study examined corporate governance from an external and internal standpoint. Most of the prior research has examined corporate governance under the lens of internal business governance.

Second, a novel conceptual model has been developed to enhance comprehension of the connection between corporate governance and financial performance by incorporating a regulatory framework as a moderating element. The legislative framework lessens the correlation between corporate governance and financial performance, as the study also demonstrated. This study provides a more comprehensive

understanding of corporate governance concepts and lays forth a comprehensive plan for enhancing corporate governance's efficacy. Previous studies did not account for the existence of moderating aspects, which have a substantial impact on the effectiveness of corporate governance systems. The relationship between corporate governance, financial performance, and the regulatory environment was examined in this study. The findings indicate that regulatory frameworks significantly and favorably attenuate the influence of financial success as assessed by ROA. Furthermore, regulatory frameworks provide a valuable explanatory element for the financial performance quantification used in Tobin Q analysis. The empirical confirmation of the correlation between corporate governance and financial success, subject to modification by the regulatory environment, has enhanced research in this area.

In conclusion, this research examined corporate governance features of public entities on the N.S.E., D.S.E, U.S.E, and R.S.E. This is a new strategy that hasn't been discussed in previous studies. Most of the research on internal and external corporate governance procedures has been conducted in developed nations. Due to the differences in the contextual backgrounds of the study participants, the results may not be applicable in underdeveloped nations. The study's conclusions are particularly relevant to developing countries, particularly those that are East African Community (EAC) partners.

5.6 Contributions to Theory

Agency theory focuses on the conflicts between principals (shareholders) and agents (managers), where governance mechanisms are designed to mitigate agency problems. This conflict is rather evident in publicly cross-listed firms because the ownership structure is spread across several jurisdictions, and different stakeholders from different countries apply different pressures on management. It is possible to extend the theory further by exploring how cross-listing in other jurisdictions with dissimilar laws and structures concerning corporate governance, for instance independent directors, executive directors'

remuneration, executive director's shareholding, independent auditors, corporate block holding, and product markets dominance affects the agency costs and the efficacy of monitors.

Stakeholder theory, for example, states that every stakeholder should be attended to not only to shareholders as opposed to the earlier traditional view held by shareholders' theory. With respect to the EAC region, such companies have shareholders with diverse economic, social and legal systems of the various countries in which the companies are operating. Such diversity requires a shift in the stakeholder theory to address cross-jurisdictional governance, where the specification lies in understanding how companies manage the conflicting and diverse stakeholder demands across different borders.

Resource dependence theory implies that to gain even basic resources necessary for their operations, firms need to regulate outside structural relations by establishing inter-organizational relationships and using various kinds of governance. In the case of the firms that trade both domestically and in the foreign markets in the EAC, these firms are subjected to regulatory systems that either support or hinder the firms' access to capital, markets and talent. This dynamic can be used to build upon the resource dependence theory to get clearer with regards to how cross listing either assists or compromises the management of resources in various legal jurisdictions.

Stewardship theory argues that managers are the stewards who act on behalf of the company and on behalf of the organization's total interest. It is nonetheless relevant to note that cross-listed companies in the EAC context may have one and the same shareholders or regulatory bodies as the non-cross-listed company, thus it may affect the degree of congruency of the managerial and organizational objectives. This creates spaces for developing the theory further to understand the roles across border governance and conflicts in shaping stewardship behavior and ethical leadership in the firms.

5.7 Limitations of the Study

This study encountered the following limitations. First EAC region has only a small number of cross-listed firms, which makes the target population small. Longitudinal data was thought to increase the amount of data needed for analysis in statistical analysis. Secondly, this study considered a period of 10 years (2013-2022) but some of the companies included had not cross-listed or were delisted from securities or stock markets due to poor performance or failure to meet regulatory requirements. To respond to this problem, this study used STATA Software, excluding companies with incomplete data based on data accessibility on companies' website, CMA, or securities markets. Thirdly, this study used secondary data sourced from the capital markets authorities, securities, or stock exchange as well as companies integrated reports, audited financial statements, shareholder profiles and investor relations reports which are generally published financials documents and activity affecting the data could negatively affect replicability and applicability of the results. To delimit distortions, this study considered unqualified audited annual reports.

5.8 Suggestions for Further Research

The current study investigated companies cross-listed at the East African Community region. Another similar study can be carried out in different sectors or sectors to make a comparison of the findings. Future studies can also consider different variables other than regulatory framework for testing moderation effect on the relationship between corporate governance and financial performance. Another study can also be carried out considering both quantitative and qualitative financial performance measures. This will contribute to widening the current scope of study.

This study focused mainly on cross-listed companies, another study can also be carried out on non-financial firms or financial firms listed at East African Community region or specific sectors such as commercial banks, insurance companies, micro-finance, global exchange bureaus and micro-finance

institutions. Further research could be replicated in other countries within the region or globally to validate the findings of this study and any other future study.

Lastly, a comparative study can also be carried out to compare corporate governance mechanisms of listed and non-listed companies operating in the East African Community region or specific sector and the implication of the findings on financial performance. Replication of this can be carried out with data collected from more efficient markets globally to provide insights to improve corporate governance, regulatory framework, and financial performance. Additionally, a study can be carried out to determine managers' motives for complying with corporate governance mechanisms in line with available literature.

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APPENDICES

Appendix 1: Data Collection Authorization Letter (Kenyatta University)

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D86/CTY/20203/2020

Date: 29th August, 2023

The Director General,
National Commission for Science, Technology & Innovation,
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MWETA T. MUTAMBU -REG. NO. D86/CTY/20203/2020

I write to introduce Mr. Mweta who is a Postgraduate Student of this University. He is registered for a Ph.D. degree programme in the Department of Accounting & Finance in the School of Business, Economics and Tourism.

Mr. Mweta intends to conduct research for Ph.D. thesis entitled, "Corporate Governance Mechanisms, Regulatory Framework and Financial Performance of Cross-Listed Companies at East African Community Capital Market"

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
EXECUTIVE DEAN, GRADUATE SCHOOL

RM/cao

Appendix 2: Data Collection Authorization Letter (NACOSTI)

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **766670**

Date of Issue: **26/September/2023**

RESEARCH LICENSE

This is to Certify that Mr.. Titus Mutambu Mweta of Kenyatta University, 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: CORPORATE GOVERNANCE MECHANISMS, REGULATORY FRAMEWORK AND FINANCIAL PERFORMANCE OF CROSS-LISTED COMPANIES AT EAST AFRICAN COMMUNITY REGION for the period ending : 26/September/2024.

License No: **NACOSTI/P/23/29748**

766670

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Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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See overleaf for conditions

Appendix 3: Cross-Listed companies at EAC region as at 31st December 2022

Company Name	BOURSE LISTED
1. Umeme Limited	USE
	NSE
2. Bank of Kigali Group Plc	RSE
	NSE
3. Equity Group Holding Ltd	USE
	RSE
	NSE
4. Nation Media Group	RSE
	USE
	DSE
	NSE
5. Uchumi Supermarkets	USE
	RSE
	DSE
	NSE
6. East African Breweries	USE
	DSE
	NSE
7. Centum Investment	USE
	NSE
8. Jubilee Holdings	USE
	DSE
	NSE
9. KCB Group Ltd	USE
	DSE
	RSE
	NSE
10. Kenya Airways	USE
	NSE
	DSE
11. I & M Group	RSE
	NSE

NSE, DSE, RSE & USE, 2022

Appendix 4: Research Budget

ITEMS	UNIT COST	TOTAL COSTS
LABOR		
Research Assistants (2)	2,000	10,000
Field Assistants (2)	2,000	10,000
TOTAL LABOR		**20,000**
EXPENSES		
RESEARCH EQUIPMENT		
Cell phone	5,000	10,000
Internet modem	3000	6,000
Portable hard disk	10,000	20,000
Laptop	25,000	50,000
Toner for printer		10,000
Color printer		10,000
		106,000
RESEARCH MATERIALS		
Cell phone usage		10,000
Refreshments		5,000
Participants honorarium	5,000	30,000
Anti-virus software	1,000	3,000
Papers, pens, envelopes, CDs and makers		1,000
		49,000
TRAVEL		
Local transport	500	10,000
Travel to confer with colleagues	1,000	10,000
Conferences and Seminars	5,000	20,000
Transport allowance for field assistants	1,500	10,000
Car rental monthly	3,000	20,000
Driver allowances	1,500	15,000
		85,000
POSTAGE		
Stamp		1,000
Courier services		2,000
Special delivery	1000	5,000
Registered mail		3,000
		11,000
OTHERS		
Membership		10,000
Cost of printing research proposal		20,000
Costs incurred pre-date awards		15,000
Costs of printing and binding of thesis		10,000
Setting up appointment with respondents/follow ups		18,000
Academic paper extraction and publication		50,000
Conference, seminar and symposium presentations 1		20,000
Conference, seminar and symposium presentations 2		20,000
Miscellaneous Expense		10,000
TOTAL COSTS		**444,000**

Appendix 5 (a): Data Collection Schedule/Data Entry Sheet

NAME OF THE COMPANY (Optional)……

Variables	Percentage of independent directors		Executive director's remuneration (Log of total annual pay)	Directors' shareholding (Percentage of CEO/MD shares)		Independent auditors
Company /Year	Total directors	Independent directors	Total salary + bonus + allowances	Total shares	CEO/MD shares	Audit tenure (Number of years engaged by the firm
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						

Source: Researcher, 2023

Appendix 5 (b): Data Collection Schedule/Data Entry Sheet

NAME OF THE COMPANY (optional)……

Variables	Corporate block holding (Percentage of corporate shares)		Product market dominance (Firm net sales/companies net sales		ROA		TOBIN Q		
Company /Year	Total shares	Corporate shares	Firm net sales	Total net sales	Net profit	Total assets	Net profit	Total equity	Preferred dividends
2013									
2014									
2015									
2016									
2017									
2018									
2019									
2020									
2021									
2022									

Source: Researcher, 2023

Appendix 6: Data Capture form: Regulatory Framework Index

NAME OF THE COMPANY(Optional)……

Regulatory framework Index **(1 if is yes and 0 if the response is no)**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
The minority shareholders										
1. Minority representation on the board otherwise										
2. Voting caps limiting power of large shareholders										
3. One-share-one-vote rule										
4. Mandatory disclosure of large ownership stakes										
5. Shares not blocked before voting										
6. Cumulative voting or proportional representation										
7. Mandatory dividend which equals the percentage of net income that the company law requires										
Accounting Standards Disclosure										
1. General Information (Name of the company, purpose, legal status, brief history and overview of the main subsidiaries)										
2. Income statements are disclosed										
3. Statement of financial position										

4. Funds Flow Statement										
5. Accounting Standards applied										
6. Stock Data indicated										
7. Special items are indicated on the footnotes										

Source: Black et al. (2006)

Appendix 7: Research Program

Item	July 2022	July-Sept 2022	Oct 2022	Nov 2022	March 2023	March-May 2023	July 2023	July-Sept 2023	Sept-Oct 2023	Oct 2023	Dec 2023	Sept 2024	Oct 2024
Problem Identification													
Drafting the Ph.D. Proposal													
Submission of the 1st draft to the supervisors													
Submission of the 2nd draft to the supervisors													
Submission of the 3rd draft to the supervisors													
Submission of the 4th draft to the supervisors													
Submission of the 5th draft to the supervisors													
Submission of the 6th draft to the supervisors													
Submission of the 7th draft to the supervisors													

Submission of the 8th draft to the supervisors													
Submission of the signed and approved draft to the department													
Ph.D. Proposal defense at the department													
Working on departments comments													
Ph.D. Proposal defense at the school													
Working on school comments													
Data collection													
Data analysis													
Summary and Conclusion, recommendations													
Submission of the thesis to the graduate school													
PhD Thesis defense at the school of graduate studies KU													
Submission of the final thesis to the school of graduate studies KU													

Source: Researcher, 2023

Appendix 8: Company Data Collection Worksheet 2013-2022

Obs.	ID	Year	ROE	Tobin Q	ROA	ID	EDR	EDS	IA	CBH	PMD	CS	RC	AGE
1	1	**2013**	22.20%	0.92	3.51%	67%	9.90	0.00%	6	90%	2.4%	8.63	57.14%	1.7
2	1	**2014**	22.90%	0.90	3.80%	75%	9.85	0.00%	7	90%	2.5%	8.68	57.14%	1.7
3	1	**2015**	21.70%	0.92	3.65%	71%	9.81	0.00%	1	90%	2.5%	8.75	57.14%	1.7
4	1	**2016**	20.20%	0.91	3.25%	71%	9.77	0.00%	2	90%	2.7%	8.81	50.00%	1.7
5	1	**2017**	20.20%	0.90	3.21%	83%	9.92	0.00%	3	85%	3.1%	8.86	42.86%	1.7
6	1	**2018**	17.20%	0.94	3.12%	75%	9.84	0.00%	4	85%	3.3%	8.94	42.86%	1.7
7	1	**2019**	18.00%	0.95	3.66%	88%	10.05	0.01%	5	85%	3.7%	9.01	28.57%	1.7
8	1	**2020**	19.10%	0.95	2.95%	80%	9.79	0.01%	6	85%	4.4%	9.12	42.86%	1.7
9	1	**2021**	16.26%	0.99	3.26%	50%	9.91	0.01%	7	86%	1.4%	9.20	42.86%	1.7
10	1	**2022**	19.80%	0.93	3.22%	71%	9.92	0.01%	8	86%	4.2%	9.27	42.86%	1.7
11	2	**2013**	18.39%	1.00	13.23%	89%	9.19	0.65%	5	97%	1.7%	7.28	64.29%	1.7
12	2	**2014**	42.00%	0.99	10.32%	88%	9.20	0.65%	6	97%	2.0%	7.47	64.29%	1.7
13	2	**2015**	29.97%	0.83	10.98%	89%	9.54	0.65%	7	96%	4.1%	7.86	64.29%	1.7
14	2	**2016**	28.83%	0.89	12.74%	89%	9.56	0.65%	1	96%	7.4%	7.89	64.29%	1.7
15	2	**2017**	22.28%	0.86	9.40%	91%	9.58	0.81%	2	96%	2.9%	7.95	64.29%	1.7
16	2	**2018**	7.26%	0.87	2.89%	90%	9.50	0.85%	3	96%	3.0%	7.98	64.29%	1.7
17	2	**2019**	10.05%	0.91	4.05%	90%	8.81	0.85%	4	96%	2.9%	8.01	64.29%	1.7
18	2	**2020**	9.78%	0.95	4.54%	90%	8.82	0.85%	5	96%	1.5%	8.01	64.29%	1.7
19	2	**2021**	3.00%	0.96	-1.25%	91%	8.82	0.85%	6	96%	68.0%	8.04	64.29%	1.7
20	2	**2022**	3.00%	0.65	-1.13%	90%	8.83	0.85%	7	95%	0.4%	8.07	64.29%	1.7
21	3	**2013**	25.92%	0.90	11.30%	82%	9.61	0.72%	5	99%	26.2%	7.76	92.86%	2.0
22	3	**2014**	25.11%	0.87	10.91%	64%	9.69	0.72%	6	99%	24.6%	7.80	92.86%	2.0
23	3	**2015**	69.94%	0.59	14.70%	82%	9.72	0.72%	7	99%	22.6%	7.81	92.86%	2.0
24	3	**2016**	53.26%	0.77	16.63%	73%	9.48	0.72%	1	97%	19.8%	7.79	92.86%	2.0
25	3	**2017**	68.75%	0.52	12.77%	73%	9.65	8.26%	2	98%	21.8%	7.82	92.86%	2.0
26	3	**2018**	12.77%	1.16	10.18%	73%	9.51	9.62%	3	97%	21.6%	7.85	92.86%	2.0
27	3	**2019**	13.32%	1.38	13.23%	70%	9.63	5.11%	4	97%	21.9%	7.94	92.86%	2.0

28	3	**2020**	11.11%	1.06	7.92%	70%	9.81	4.75%	5	97%	18.7%	7.95	92.86%	2.0
29	3	**2021**	11.26%	1.01	6.95%	82%	9.44	4.87%	6	98%	5.9%	8.00	92.86%	2.0
30	3	**2022**	9.61%	1.85	14.10%	82%	9.37	7.48%	7	98%	20.3%	8.04	92.86%	2.0
31	4	**2013**	25.75%	0.73	4.78%	80%	9.81	3.45%	4	97%	14.1%	5.44	100.00%	1.5
32	4	**2014**	26.89%	0.68	4.98%	78%	9.95	3.45%	5	97%	14.2%	5.54	100.00%	1.5
33	4	**2015**	24.02%	0.57	4.05%	71%	10.08	3.39%	6	96%	15.1%	5.63	100.00%	1.5
34	4	**2016**	20.25%	0.50	3.50%	78%	10.12	3.39%	7	96%	15.9%	5.68	100.00%	1.5
35	4	**2017**	20.31%	0.55	3.61%	78%	9.18	3.39%	1	96%	15.0%	5.72	100.00%	1.5
36	4	**2018**	20.88%	0.56	3.46%	78%	9.20	3.39%	2	96%	17.1%	5.76	100.00%	1.5
37	4	**2019**	20.18%	0.55	3.35%	83%	9.24	3.39%	3	95%	15.9%	5.83	100.00%	1.6
38	4	**2020**	14.50%	0.52	1.98%	67%	9.80	3.39%	4	95%	20.1%	6.01	100.00%	1.6
39	4	**2021**	22.74%	0.52	3.07%	67%	9.84	3.39%	5	96%	7.0%	6.12	100.00%	1.6
40	4	**2022**	25.30%	0.47	3.19%	71%	9.70	3.39%	6	96%	23.9%	6.16	100.00%	1.6
41	5	**2013**	19.09%	0.93	3.52%	43%	8.21	2.16%	6	99%	6.4%	8.15	71.43%	1.8
42	5	**2014**	26.17%	0.88	3.25%	50%	8.39	2.16%	7	99%	7.1%	8.25	71.43%	1.8
43	5	**2015**	22.72%	0.94	3.73%	50%	8.35	2.16%	1	99%	7.7%	8.28	71.43%	1.8
44	5	**2016**	20.96%	0.95	3.69%	57%	8.32	2.16%	2	99%	7.5%	8.32	85.71%	1.8
45	5	**2017**	16.39%	0.95	3.03%	43%	8.78	2.64%	3	100%	7.6%	8.38	85.71%	1.8
46	5	**2018**	17.76%	0.96	2.95%	63%	8.74	2.05%	4	99%	7.6%	8.46	85.71%	1.8
47	5	**2019**	18.65%	0.97	3.42%	67%	8.82	2.05%	5	99%	7.2%	8.50	85.71%	1.8
48	5	**2020**	13.11%	0.96	2.35%	80%	9.01	2.05%	6	99%	6.9%	8.55	85.71%	1.9
49	5	**2021**	12.39%	0.97	2.08%	78%	9.17	2.27%	7	99%	2.3%	8.62	85.71%	1.9
50	5	**2022**	15.14%	0.98	2.65%	50%	9.15	2.27%	8	99%	6.9%	8.64	85.71%	1.9
51	6	**2013**	20.13%	0.35	4.09%	25%	7.49	0.02%	4	97%	8.0%	7.79	92.86%	1.9
52	6	**2014**	20.10%	0.34	4.17%	73%	7.68	0.02%	5	97%	9.9%	7.87	92.86%	1.9
53	6	**2015**	16.34%	0.35	3.79%	73%	7.85	0.02%	6	97%	8.1%	7.92	92.86%	1.9
54	6	**2016**	18.43%	0.33	4.06%	44%	7.81	0.01%	7	97%	8.3%	7.96	92.86%	1.9
55	6	**2017**	17.96%	0.30	4.03%	44%	7.57	0.01%	1	97%	8.8%	8.02	92.86%	1.9
56	6	**2018**	15.95%	0.28	3.66%	44%	7.52	0.01%	2	97%	7.9%	8.06	92.86%	1.9

57	6	**2019**	14.22%	0.28	3.09%	33%	7.43	0.01%	3	97%	7.7%	8.11	92.86%	1.9
58	6	**2020**	12.49%	0.30	2.80%	33%	7.40	0.01%	4	97%	7.4%	8.16	92.86%	1.9
59	6	**2021**	17.31%	0.31	4.40%	25%	7.54	0.01%	5	97%	2.0%	8.19	92.86%	1.9
60	6	**2022**	14.42%	0.30	3.85%	33%	7.53	0.01%	6	97%	4.7%	8.23	92.86%	1.9
61	7	**2013**	22.64%	0.98	3.67%	82%	9.55	0.00%	1	98%	18.5%	5.59	78.57%	2.1
62	7	**2014**	22.28%	0.97	3.44%	55%	9.75	0.00%	2	99%	19.1%	5.69	78.57%	2.1
63	7	**2015**	24.15%	0.96	3.52%	82%	9.69	0.00%	3	99%	19.8%	5.75	78.57%	2.1
64	7	**2016**	20.42%	0.96	3.31%	73%	9.70	0.00%	4	98%	19.3%	5.77	92.86%	2.1
65	7	**2017**	18.59%	0.98	3.05%	78%	9.78	0.00%	5	98%	19.7%	5.81	92.86%	2.1
66	7	**2018**	21.11%	0.97	3.36%	80%	9.84	0.00%	6	98%	19.5%	5.85	92.86%	2.1
67	7	**2019**	19.40%	0.98	2.80%	80%	9.89	0.00%	7	99%	19.8%	5.95	92.86%	2.1
68	7	**2020**	13.76%	0.96	1.98%	73%	9.50	0.00%	1	98%	23.2%	5.99	92.86%	2.1
69	7	**2021**	19.70%	0.97	3.00%	82%	9.99	0.00%	2	98%	7.8%	6.06	92.86%	2.1
70	7	**2022**	19.80%	0.96	2.63%	73%	9.95	0.00%	3	98%	24.5%	6.19	92.86%	2.1
71	8	**2013**	30.96%	0.99	22.14%	81%	9.12	0.00%	1	98%	5.9%	10.06	71.43%	1.7
72	8	**2014**	28.24%	0.99	20.60%	79%	9.06	0.00%	2	98%	5.4%	10.08	71.43%	1.7
73	8	**2015**	24.96%	0.98	17.51%	82%	9.17	0.00%	3	98%	4.3%	10.10	71.43%	1.8
74	8	**2016**	19.51%	1.07	14.92%	81%	9.30	0.00%	4	98%	3.5%	10.05	71.43%	1.8
75	8	**2017**	16.15%	1.00	11.71%	82%	9.29	0.00%	5	98%	3.3%	10.05	71.43%	1.8
76	8	**2018**	14.29%	0.99	10.00%	81%	9.12	0.00%	6	98%	2.8%	10.05	71.43%	1.8
77	8	**2019**	11.07%	0.93	7.08%	87%	8.98	0.00%	7	98%	2.4%	10.08	71.43%	1.8
78	8	**2020**	0.61%	0.95	0.41%	86%	8.86	0.00%	8	98%	1.7%	10.07	71.43%	1.8
79	8	**2021**	6.15%	0.96	3.90%	86%	9.02	0.00%	9	98%	0.5%	10.10	71.43%	1.8
80	8	**2022**	3.89%	0.97	2.52%	87%	9.00	0.00%	10	98%	1.4%	10.10	71.43%	1.8
81	9	**2013**	29.28%	0.75	9.41%	88%	10.85	0.26%	2	99%	16.7%	5.95	78.57%	1.0
82	9	**2014**	22.47%	0.65	5.82%	70%	10.92	0.17%	3	99%	15.3%	6.08	78.57%	1.0
83	9	**2015**	21.01%	0.52	5.96%	73%	11.51	0.17%	4	98%	15.9%	6.25	92.86%	1.1
84	9	**2016**	16.85%	0.52	4.55%	60%	11.49	0.36%	5	97%	15.7%	6.34	78.57%	1.1
85	9	**2017**	5.75%	0.57	1.51%	60%	11.00	0.29%	6	98%	17.9%	6.37	92.86%	1.1

86	9	**2018**	39.34%	0.44	5.39%	73%	10.97	0.24%	7	98%	17.1%	6.39	92.86%	1.2
87	9	**2019**	16.69%	0.63	5.47%	70%	11.60	0.24%	1	98%	18.4%	6.41	92.86%	1.2
88	9	**2020**	5.36%	0.67	1.62%	73%	11.61	0.24%	2	99%	16.2%	6.43	92.86%	1.2
89	9	**2021**	15.58%	0.71	5.55%	80%	11.61	0.24%	3	99%	5.0%	6.40	92.86%	1.3
90	9	**2022**	14.67%	0.77	5.76%	70%	11.72	0.28%	4	99%	13.7%	6.41	92.86%	1.3

Appendix 9: Testing for Time-fixed effect (TOBIN Q Model)

TobinQ |	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Independent directors |	.106206	.17149	0.62	0.538	-.23638	.4487981
Executive directors' compensation	.054744	.06845	0.80	0.427	-.08201	.1915074
Executive director's shareholding	4.5642	1.4981	3.05	0.003	1.57134	7.55723
Independent auditors	-.00729	.00811	-0.90	0.372	-.02351	.0089192
Corporate block holding	-.64528	2.0780	-0.31	0.757	-4.7965	3.506011
Product market dominance	.123112	.20553	0.60	0.551	-.28749	.5337187
Company size	-.29001	.20174	-1.44	0.155	-.69303	.1130083
Age of the company	-.31414	.67218	-0.47	0.642	-1.6569	1.028697
Year |						
2014 |	.002892	.067758	0.04	0.966	-.1324708	.1382549
2015 |	-.050966	.07587	-0.67	0.504	-.2025534	.1006213
2016 |	-.015255	.07821	-0.20	0.846	-.1715146	.1410031
2017 |	-.070951	.08777	-0.81	0.422	-.2462954	.1043933
2018 |	.007979	.09832	0.08	0.936	-.188455	.2044131
2019 |	.092538	.10611	0.87	0.386	-.1194545	.3045309
2020 |	.085984	.11496	0.75	0.457	-.1436812	.3156499
2021 |	.113764	.12562	0.91	0.369	-.1372567	.3647296
2022 |	.178667	.13908	1.28	0.204	-.0991881	.4565225
_cons |	3.53861	3.0369	1.17	0.248	-2.528404	9.605632
F test that all u_i=0: F (8, 64) = 7.52			Prob > F = 0.0000			

Source: Research, 2023