

**EFFECT OF CORPORATE GOVERNANCE ATTRIBUTES ON
FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN
KENYA**

BY


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DECLARATION


I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This research project has been submitted for examination with my approval as the University Supervisors.

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DEDICATION

This research project is dedicated to my mother, Hildah Gichohi for her continuous encouragement, my father, Michael for his financial support and encouragement and my siblings: Ciiru and Brian for their love, support and encouragement.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CBK	Central Bank of Kenya
CEO	Chief Executive Officer
CG	Corporate Governance
NPL	Non-Performing Loans
NSE	Nairobi Securities Exchange
OECD	Organization for Economic and Cooperation Development
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SPSS	Statistical Package for Social Sciences
VIF	Variance Inflation Factors

ABSTRACT

Corporate governance attributes has been associated with numerous benefits including reducing the agency conflicts among stakeholders of a firm. A desirable structure of governance would assist in ensuring that resources of the firm would be utilized properly by management to benefit other stakeholders. Despite a tight regulatory framework, corporate governance issues are still experienced among commercial banks. This is evidenced by the recent collapse of Chase Bank and Imperial Bank and the struggles experienced by National Bank. This research sought to bring out the effect of corporate governance attributes on the financial performance among banks in Kenya. The research established the effect of gender diversity, ownership concentration and board independence on performance among banks. Credit risk, capital adequacy and bank size were used as the control variables in the model. Descriptive research design was used. The target population was the 38 banks in Kenya. Research variables data were derived from audited company's annual financial statements from 2016 to 2020 for all 38 banks making 190 observations. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between corporate governance attributes and ROA. The results indicated R^2 of 0.234 which implied that the selected independent variables contributed 25.8% to variations in ROA. The study also found that ownership concentration ($\beta=0.322$, $p=0.000$), board independence ($\beta=0.301$, $p=0.000$) and bank size ($\beta=0.207$, $p=0.001$) had a positive and significant relationship with ROA among banks. Credit risk has a significant negative effect on ROA ($\beta=-0.417$, $p=0.000$) while gender diversity ($\beta=0.002$, $p=0.649$) and capital adequacy ($\beta=0.003$, $p=0.834$) were not statistically significant. The study recommends that policy makers should focus on ownership concentration as this contributes to ROA of the banks. The study also recommends that CBK which is the regulator should make it mandatory to all banks that they should have board independence.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In the environment of today's market, Corporate Governance (CG) has gotten a lot of recognition. Increased social expectations on organizational behavior and efficiency necessitate the need for good governance. CG attributes have the potential to influence immediate goals as well as future goals of the company. Corporate governance is supported by many academic studies that demonstrate that it helps a business both create and improve shareholder value (Korent, Dundek & Calopa, 2014). As per Okiro, Aduda and Omoro (2015), good corporate governance allows companies to save money through effective monitoring of operations leading to enhanced financial performance.

The research anchor theory was Jensen and Meckling (1976) agency theory as it explains in what manner management, being agent, is supposed to fulfill their perfect fiduciary duty of serving the principal's best interests to enhance the main goal of a firm. The theory links CG attributes and financial performance. Other supporting theories include stakeholder theory as well as the stewardship theory. The stakeholder theory by Freeman (1984) is applicable to this study because it provides backing for agency theory, which failed to capture all other important stakeholders who depend on financial results to make economic decisions, like regulators, credit suppliers, staff, financial analysts, as well as probable investors, among others. Stewardship theory by Donaldson and Davis (1991) offers a theoretical framework for understanding how successful agents who are firm managers manage their profession through performing their duties with highest dignity, compulsory corporate governance code compliance, as well as the disclosure of correct, appropriate, and suitable reports to all stakeholders at regular intervals without disadvantaging any stakeholder.

The recent failures of multinational companies like Lehman Brothers, Xerox, Enron, as well as WorldCom, among others, have strengthened the significance of corporate governance in organizations, according to (Dibra, 2016). Kenya, like other industrialized economies as well as developing countries in the area, does not lag behind when it comes to corporate governance among commercial banks. Despite a tight regulatory framework, corporate governance issues are still experienced among commercial banks (Koech & Ogolla, 2018). This is evidenced by the recent collapse of Chase Bank and Imperial Bank and the struggles experienced by National Bank. Commercial banks in Kenya provide a good context to examine CG attributes effect on financial performance.

1.1.1 Corporate Governance Attributes

The Corporate governance attributes are methods and structures put in place for controlling and directing a business, as well as managing affairs among managers, shareholders, board members, and other stakeholders, while preserving their rights and fostering openness (Sarbah & Xiao, 2019). Corporate governance attributes can also be said to be a framework formulated to control and directs an organization based on principles of good governance; fairness, accountability, transparency, independence and responsibility (Naimah & Hamidah, 2017). Corporate governance attributes, as per Iqbal (2015), are a way of ensuring that business is done fairly, effectively, and openly in order to attain goals of an organizational via effective practices as well as procedures. The current study adopts the definition by Sarbah and Xiao (2019) due to its wider applicability in previous literature.

Firms with effective CG attributes are more likely to be transparent in their disclosures and are more likely to meet shareholder's need of wealth maximization by investing

effectively than firms with weak CG attributes. For CG to be effective, top management need to set the right tone. High ability managers have the capacity and capability of upholding the principals of CG. They are well trained and are more transparent in their disclosures (Chen et al., 2017). By abiding by the set CG attributes, these managers invest efficiently thus increasing their firm's operational efficiencies (Bidabad et al., 2017). CG has attracted renewed global attention as a result of major financial scandals and collapse of corporations courtesy of lack of adequate internal control systems that enhance financial transparency and accountability (Salem et al., 2019).

In regards to operationalization, there is diversity in corporate governance. As per Mamatzakis and Bermpei (2015) operationalized corporate governance attributes in terms of managerial ownership, bank executive's compensation, senior managers' bonuses as well as allowances, CEO power structure, and gender diversity. Board as well as committee structure, composition of board of directors, governing systems and processes, board autonomy, components of audits, as well as the manner the corporate bodies circulates and publishes information to stakeholders are all significant corporate governance qualities (Olick, 2015). As per Wasike (2012), corporate governance attributes involve; the corporation's directors 'board characteristics, the ownership structure of the corporation, financial transparency and information disclosure. The current study operationalized CG attributes in relation to board independence, gender diversity and ownership concentration.

1.1.2 Financial Performance

Almajali, Alamro, and Al-Soub (2012) describe financial performance as a company's capacity to meet a set of financial objectives, like profitability. The magnitude by which a company's financial standards have been fulfilled is referred to as financial

performance. It displays how well financial goals have been met (Nzuve, 2016). Financial performance, as per Baba and Nasieku (2016), indicates in what manner a firm utilizes assets in generating revenue and hence helps stakeholders in making their decisions. According to the current study, a company's financial position is defined as its ability to generate income out of its assets.

Financial performance is vital to shareholders, investors, and, by extension, the entire economy. The return on investment is completely worthwhile to investors, and having a good firm can provide greater and long-term revenue to individuals who invest (Fatihudin & Mochklas, 2018). Financial performance of a corporation is significant to its health as well as its existence. As per Karajeh and Ibrahim, (2017) company's excellent performance demonstrates its efficiency and effectiveness in managing its assets throughout operations, investments, as well as financial transactions.

Various methods of evaluating financial performance are used and should be harmonized. Asset returns (ROA), size of company, equity returns (ROE) and sales return (ROS) are factors recognized as measures of financial performance. ROA and ROE are the most recognized ways of measuring financial performance. The ROA evaluates the company's profitability using its total assets, whereas the ROE examines the way a company is using shareholder's equity (Mwangi & Murigu, 2015). Baba and Nasieku (2016) posit that market based metrics like earnings per share, dividend yield, market to book value of equity and market capitalization can too be employed in financial performance measure. The current study utilized ROA as a metric of financial performance as it is the most recognized measure (Fatihudin & Mochklas, 2018).

1.1.3 Corporate Governance Attributes and Financial Performance

Theoretical link between corporate governance attributes and financial performance has been explained by some theories such as the agency theory that predicts that CG attributes positively impact financial performance. Jensen and Meckling (1976) noted firm owners may find relief in the fact that the agents' actions will favor the owners provided that they are given appropriate incentives and they are appropriately monitored. As a result, the director's function becomes one of monitoring management's actions who as per the stewardship theory has the fiduciary duty of making sure the interests of the shareholders are well guarded. Strict monitoring done by the shareholders will increase the chances of full disclosures hence a positive corporate governance attributes impact on financial performance among companies.

Shleifer and Vishny (1997) argue that adoption of a strong corporate governance structure aids in obtaining more capital, resulting in an increase in the development of the business. Good corporate governance encourages investors to put their money into businesses like this. Competitiveness in a dynamic environment requires companies to be creative and to adjust strong corporate governance policies and frameworks (OECD, 2004).

Padachi, Ramsurrun and Ramen (2017) indicated a positive relation between the corporate governance index value of firms and their financial performance. Business governance and corporate competitiveness were shown to be positively correlated, according to the study. The findings of this research are confirmed by those of Opanga (2013) who found a favorable correlation between governance as well as financial success among insurance firms in Kenya. However, an earlier research by Luyima (2015) found that although financial success is positively correlated with other aspects

of performance such as customer performance, learning, and growth, the connection between corporate governance and financial performance was neutral.

1.1.4 Commercial Banks in Kenya

CBK definition of a bank is an entity conducting or planning to carry out banking operations in Kenya. Included in commercial banking is the activities of deposit acceptance, extending credit, processing financial transactions in addition to offering financial services in other areas. Specifically, the industry contributes significantly to the financial sector, with a special focus on the mobilization of saving and the provision of loans to businesses and consumers. The CBK is the regulating authority in the Kenyan banking industry. The banking segment has 1 mortgage finance company, 38 commercial banks, as well as 13 microfinance companies in the industry. There are 11 of the 38 listed at the NSE (CBK, 2020).

The banking segment in Kenya has faced several cases of bank collapse which has been attributed to corporate governance. The downfall of Dubai Bank of Kenya, Imperial Bank as well as Chase Bank in the year 2015 and 2016 offers good examples. The wave of bank mergers, acquisitions, as well as failures that swept Kenya as well as the rest of the world in the 1990s served as a wake-up call for Kenya's Central Bank, which strengthened its bank supervision arm in 2001 as well as again in 2013 and 2015. In order to attain this, the CBK has released prudential rules on corporate governance on several occasions, which all institutions registered under Kenya's Banking Act Cap 488 must follow (CBK, 2020).

Commercial banks have performed variably in terms of financial performance, with some seeing an increase in ROA while others have seen a decline. Over the past few years, we have seen certain banks, like Chase bank and National bank record declining

performance to the extent of being acquired, and we have also seen more mergers among competing banks, all in an effort to maintain financial stability in the market (CBK, 2020). This clearly demonstrates the need to investigate whether corporate governance attributes has an impact on financial performance.

1.2 Research Problem

Corporate governance attributes has been associated with numerous benefits including reducing the agency conflicts among stakeholders of a firm. A desirable structure of governance would assist in ensuring that resources of the firm would be utilized properly by management to benefit other stakeholders (Mgammal, Bardai & Ku Ismail, 2018). Lamport et al. (2011) stated that, prior studies argue that good governance attributes impacts positively on the performance of firms. Gaining a clear understanding of sound governance procedures is very important to helping businesses prevent fraud and building a positive image. It additionally becomes vital for companies to improve firm performance, improve the environment for investing as well as to boost (Braga & Shastri, 2011).

Kenyan commercial banks have increased their digitization efforts, putting financial innovations at the forefront, to strengthen their network base, decrease staff expenses, operate competitively with staff and enhance profitability. However, despite all this increased digitization, some banks have experienced a drop in profitability, others have been placed under statutory management, and still others have closed their doors. Apart from the competition for customers amongst Kenyan commercial banks, corporate governance has been hypothesized as an issue that would be influencing their financial performance (Miruka, 2020). Commercial banks in Kenya provide a good context to find CG attributes effect on financial performance.

Empirical research on CG attributes impact on financial performance is present but there exist conceptual, contextual and methodological research gaps. Ouni, Mansour, and Arfaoui (2020) sought to see how gender diversity affected the financial performance of participating Canadian companies. The research presents a contextual gap as it was carried out in Canada which has a different economic and social situation from Kenya. Afzalur (2019) investigated if board independence has an impact on the economic performance of Bangladeshi listed firms. The research presented a contextual gap because it was in a Bangladeshi context. In addition, the research offers a conceptual gap as it did not address other CG attributes. Qadorah and Fadzil (2018) investigated the correlation between internal corporate governance mechanisms and board of directors' features (board independence and board meeting frequency) and firm performance in Jordanian listed companies. The study presents a conceptual gap as some attributes of CG such as gender diversity and ownership concentration were not considered.

Miruka (2020) looked at corporate governance impact on Kenyan banks' financial performance. The research had a conceptual problem because it only looked at one aspect of corporate governance. The Study also reveals a methodological gap as it was a case study. Rono (2019) aimed to determine the impact of board gender diversity on Kenya's commercial bank's business performance. The research presents conceptual gaps as other CG attributes such as board independence were not considered. Ibrahim, Ouma and Koshal (2019) examined gender diversity impact on the financial performance of Kenyan insurance companies. The research yields a contextual gap as it focused on the insurance industry. These researches have not investigated correlation between corporate governance attributes and financial performance among banks in Kenya. Thus, it was worthwhile for the study to seal the gap through establishment of

the connection between corporate governance attributes and financial performance among banks in Kenya. The current research was based on these gaps and attempted to answer the research question; how does corporate governance attributes affect financial performance among commercial banks in Kenya?

1.3 Research Objective

To investigate the effect of corporate governance attributes on financial performance of commercial banks in Kenya.

1.4 Value of the Study

The research conclusions will add in corporate governance theories development like agency theory, stakeholder theory as well as stewardship theory. Scholars as well as academicians can even use the outcomes of the research to further investigate and undertake research in this area. As a result, future academics and academicians could use this research as a reference point in their research.

The research may offer information on affiliation between CG attributes and financial performance among Kenyan banks. Managers are likely to develop a clear strategy for improving their management and administration strategies. The information can be used by the banks to enhance their delivery mode as well as strengthen their position against competitors.

The study's findings may likewise help the structuring and legislature of Kenyan policies and regulations that help companies to advance their administration conveyance via improved and progressively effective procedures. This is helpful in making reasonable changes and improves the industry with a general point of advancement of the economy.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter clarifies the theories on which corporate governance attributes and financial performance was based. It further discusses the previous empirical studies;

knowledge gaps identified and summarizes with a conceptual framework and hypotheses displaying the expected study variable relationship.

2.2 Theoretical Framework

The segment examines theories which underpin the research of CG attributes and financial performance. Theoretical reviews covered were agency, stakeholder as well as stewardship theory.

2.2.1 Agency Theory

It forms the present study's anchor theory. Jensen and Meckling (1976) agency theory describe an 'agent' as someone who works on behalf of another person. The problem with the principal-agent relationship is that principals cannot contractually specify what the agent can do in any case (Moenga, 2015). Three factors can exacerbate the problems that arise from the principal-agent relationship: opportunism, sunk costs, and secret facts (Njau, 2016). Hidden information happens whenever agents have information that the principal does not have and the agent possess an opportunity to keep the info hidden from the principal, all other factors held responsible. Hidden knowledge has the effect of allowing the agent to 'shirk' or minimize efforts to the disadvantage of the principal. The convention that CG is essential to guarantee agent conduct is directed toward principal interests has implications for why corporate governance best practice structures can give productivity benefits as well as competitive gains to businesses (Aimone & Butera, 2016).

Despite this, agency theory is not without flaws. The agency theory fails to account for several of the complexities and challenges those agents confront in carrying out the principal's tasks and assignments. Furthermore, the control mechanisms proposed in relation to agency theory are costly as well as ineffective economic wise, since

shareholders' interest protection measures can interfere with the implementation of strategic plans, restrict collective activities, change plans of investment, as well as disregard other stakeholder interests, resulting in a decrease in their obligation to the economic value development (Segrestin & Hatchuel, 2011).

Suitability of Agency theory to this research is because it clarifies in what management, as the agent, is supposed to fulfill their perfect fiduciary mandate of acting in principals' best interests and to prepare and offer principals with financial reports. As a result, agency theory is thought to provide a sound theoretical basis for the research's primary objective which is the affiliation between CG attributes and financial performance.

2.2.2 Stakeholder Theory

Freeman (1984) proposed the theory with the intention of being utilized as a management tool. However, since then it has progressed into a firm theory with a lot of explanatory power. The stakeholder theory is a methodological framework for organizational ethics and management that focuses on ethical as well as moral ideologies in the management of public and private organizations. Stakeholder theory stresses the importance of maintaining a balance of stakeholders' interests as the primary determinant of organizational strategy.

The single-valued objective supposition, according to which advantages go to a firm's stakeholders, is a source of criticism for this theory. According to Jensen (2016), there are additional ways to assess an organization's performance apart from the benefits stakeholders receive. The factors comprise flow of information from top administration to lower-level employees, the work conditions, and interpersonal relationships inside the company.

Stakeholder theory is applicable to this research since it provides support for agency theory, which failed to capture all other important stakeholders who depend on financial results to make economic decisions, like regulators, credit suppliers, staff, financial analysts, as well as probable investors, among others. It lays a theoretical basis for understanding how various individuals and entities both inside as well as outside of a firm need accurate information, which can be ensured by adhering to the corporate governance code and other regulatory directives strictly. As a result, the theory should include theoretical justifications for all practical goals so that, when directors board as well as administration have at heart all stakeholders' best interests, they can comply fully with the CG code as well as make sure performance measures offered to interested parties are precise, appropriate, as well as are a reflection of the true state of the firm.

2.2.3 Stewardship Theory

This theory was proposed by Donaldson and Davis (1991). It emerges as a critical counterpoint to agency theory. A manager's principal purpose, as per stewardship theory, is to maximize the company's output since a manager's passion for success as well as achievement is gratified whenever the firm performs effectively. This theory counters the agency theory by arguing that managerial opportunism is unimportant. Stewardship and agency theory mainly differ in that stewardship theory substitutes the absence of confidence that agency theory relates to with reverence for authority and the desire of managers to behave ethically. According to stewardship theory, managers in publicly held firms are discouraged from operating against the interests of shareholders by their concern for their own reputations and career development, so agency costs should be naturally reduced (Donaldson & Davis, 1991). Because of detailed understanding of organizational operations, like data access as well as

technical skills, an insider-dominated board, according to Muth and Donaldson (1998), is more successful. Compensation incentivizes shareholders' agents to work for the good of all stakeholders. True stewards and executives adhere to corporate governance code as well as regulatory directives, and disclosing to stakeholders the true quality earnings (Chen et al., 2016).

Pastoriza and Ario (2018), for example, argue that stewardship theory is oversimplified and impractical since people are inclined to become stewards owing to contextual as well as psychological reasons. These elements do not affect all executives, but the question remains: what happens to the organizational goal when the company's management theory and the manager's psychological characteristics are out of alignment? Moreover, while stewardship theory claims that becoming a steward is essentially the consequence of a logical process, it is unclear whatever underlying mechanisms lead a person to choose to be a steward. As per Daodu, Nakpodia and Adegbite, (2017) the question is how a person can determine whether or not he has a steward's nature. It's critical to understand what drives a person to look beyond his self-interest as well as resolution of inter-motivational conflict inside himself.

Pertinence of stewardship theory to the research is since it complements stakeholder theory, which captures all other important stakeholders other than management who depend on financial results to make economic decisions, like owners, government, credit suppliers, financial analysts, potential investors as well as staff potential investors, among others. It offers a theoretical framework for recognizing how successful agents who are firm managers regulate their professions by carrying out their responsibilities with highest dignity, adhering to the corporate governance code, and

providing accurate, appropriate, and beneficial reports to all interested parties at periodic intervals without putting any stakeholder at a vulnerable position.

2.3 Determinants of Financial performance

There are various financial performance determinants of a firm; these factors are found either within or outside the firm. Internal factors are firm-specific and can be manipulated internally. They are corporate governance attributes, bank size, capital adequacy and credit risk. Factors outside a firm that influence financial performance include; regulatory environment, political stability, corruption amongst others (Athanasoglou et al., 2005).

2.3.1 Corporate Governance Attributes

A theoretical association between corporate governance attributes and financial performance has been clarified by theories like; the agency theory predicts corporate governance has a positive effect on financial performance. Jensen and Meckling (1976) noted owners of the firm can find relief in the fact that the agents' actions will favor the owners provided that they are given appropriate incentives and they are appropriately monitored. As a result, the director's function is to oversee management's actions, which, as per the stewardship theory, has the fiduciary duty of ensuring the shareholders' best interests are guarded. Strict monitoring done by the shareholders will reduce the chances of earnings manipulation hence a positive affiliation between corporate governance as well as financial performance among firms.

Adoption of a strong corporate governance structure aids in obtaining more capital, resulting in an increase in the development of the business (Shleifer & Vishny ,1997). Good corporate governance encourages investors to put their money into businesses

like this. Competitiveness in a dynamic environment requires companies to be creative and to adjust strong corporate governance policies and frameworks (OECD, 2004).

2.3.2 Bank Size

Firm size determines by how much legal as well as financial elements affect a bank. As big businesses gather cheap capital and generate enormous incomes, the size of the bank is strongly related to enough capital (Amato & Burson, 2007). The book value of the entire assets of the bank typically determines its size. Additionally ROA is positively associated with bank size showing that large banks can accumulate economies of scale hence reducing operational costs while increasing loan volumes (Amato & Burson, 2007). Bank size is related to capital ratios, according to Magweva and Marime (2016), and profitability rises with size.

Burson and Amato (2007) said a company's size depends on the organization's assets. It can be argued that the more the assets owned by a bank the more the investments it can make which generate bigger returns compared to smaller firms with less assets. In addition, a bigger company may have more collateral that may be utilized as safety for more loan facilities than smaller companies (Njoroge, 2014). Lee (2009) argued that the assets being controlled by entity impacts profitability level of the firm from one period to another.

2.3.3 Capital Adequacy

Core capital to assets ratio is often known as bank capitalization. It illustrates the relationship between equity and total assets. It demonstrates a bank's capacity to stay viable through risk regulation. In a study, Berger and DeYoung (1997) demonstrated a negative link between capital sufficiency and performance. In imperfect financial

markets, firms with adequate capital should limit borrowings to support a particular asset class and therefore minimize the expected bankruptcy cost.

A bank with enough capital indicates that a better performance is anticipated on the market. The findings of Athanasoglou et al. (2005) have shown that the capital stocks are favorably associated with bank profitability and indicate a solid financial position for Greek banks. Berger et al. (1987) also showed a positive causation of the influence from capital and profitability.

2.3.4 Credit Risk

Credit risk poses a substantial challenge to the firm's solvency since it represents a risk to its existence (Sufi & Qaisar, 2015). It is normally assessed as the ratio of NPL to total loans. Lenders provide loans knowing the borrowers would repay without any default, without falling into the non-performing category (Bhattarai, 2016). There will be disastrous consequences for the bank's profits if non-performing loans remain on the books. It is possible that banks have not implemented an effective measure to manage credit risk (Afriyie & Akotey, 2012).

In the banking industry, moral hazards and asymmetric knowledge are associated with credit risk. When it comes to profits of the bank, credit risk has a large impact because a substantial part of a bank's revenue is from loans with interest. However, the threat posed to the financial sector by credit risk is undeniable. Credit risk must be addressed effectively (Bhattarai, 2016). Past research show that bank assets quality is a strong indicator of financial performance. Examples of credit risk indicators include non-performing loans, which might potentially destabilize the bank's general credit system and diminish its value (Afriyie & Akotey, 2012).

2.4 Empirical Review

Local as well as global researches have determined the affiliation between CG attributes and financial performance, the objectives, methodology and prior research results have been discussed in this segment.

2.4.1 Global Studies

Qadorah and Fadzil (2018) investigated the correlation between internal corporate governance mechanisms and board of directors' features (board independence and board meeting frequency) and firm performance in Jordanian listed companies. The research utilized cross-sectional data from the Amman Stock Exchange for 2013, with 64 industrial firms serving as the sample. As an accounting-based performance metric, firm performance was determined by ROA. The research intention is to assess the hypotheses and look into the correlation between board characteristics of directors (independence of board as well as board meetings frequency) as well as firm results, the current study used multiple linear regression analysis. The conclusions revealing board independence is linked to ROA in a substantial as well as positive way. The current study discovered that board meetings frequency had insignificant relationship on firm performance as calculated by ROA. This research reveals a conceptual gap as some aspects of CG attributes are left out.

Araoye and Olatunji (2019) pursued board activism effect on Nigerian listed insurance firm's performance. Between 2006 and 2017, the study examined the impact of board meetings on the 15 Nigerian listed insurance firm's performance. The data from the sampled companies' annual reports was analyzed using panel data regression and descriptive analysis. The study's findings showed a negative link between board meetings and insurance firm results in Nigeria, with a focus on ROE, ROA, As well as

Tobin's Q. It was proposed that regulatory authorities concentrate more on the competence and expertise of directors at board meetings in order to ensure good results. This study was conducted among listed insurance firms in Nigeria whose nature of operations and social economic environment is different from that of banks in Kenya that are the focus of the current study.

Afzalur (2019) investigated if board independence has an impact on the economic performance of Bangladeshi listed firms. This research uses a simultaneous equation approach to monitor the possible endogeneity problem by using data from 135 Dhaka Stock Exchange listed firms and accounting and market performance indicators. According to this report, board independence and firm economic results do not have a positive relationship. In addition, board size has a major positive effect on both board independence and firm results, according to this report. Though board independence is a key feature of corporate board practices in many developed countries, it may still be a mirage in Bangladesh. This study was performed in Bangladesh which has a difference socio-cultural and economic environment from Kenya where the current study will be undertaken.

Brahma, Nwafor, and Boateng (2020) investigated the connection between gender diversity, selected female characteristics, and financial performance of 100 UK firms. Based on critical mass theory and evaluating gender diversity as number of female boardroom representation, this research confirms a positive as well as substantial association between gender diversity and corporate performance. Whenever three or more females are named to the board, the conclusions become far more significant and unambiguous than when two or fewer females are chosen. Further research demonstrates that female age, educational achievement, as well as the existence of

female board members who simultaneously serve as executive directors are all favorably connected with post-appointment financial output. The results are unaffected after accounting for endogeneity issues and utilizing different indices of firm success, like ROA as well as Tobin's Q. The social and economic setting of UK is different from Kenya where the current study will be conducted.

Ouni, Mansour, and Arfaoui (2020) sought to see how gender diversity affected the financial performance of active Canadian firms' directors as well as executive committees, as well as the mediating position of social, environmental, as well as governance orientation. The research sample consisted of 133 Canadian businesses, with 925 findings over an 18-year period (2002–2019). Gender diversity in turnover impact on firm financial results is empirically supported in this paper, which reflects 53% of the variation. The research not only supports the positive impact of gender diversity on performance, but it also shows a mediating process involving a company's environmental, social, and governance orientation, which accounts for nearly 4% of the overall gender diversity effect on performance. This study focused on only one aspect of corporate governance attributes.

2.4.2 Local Studies

Koech (2018) examined determinants of effective CG among state corporations found in Kenya. The study targeted managers from the 187 corporations and regression method analysed the data. Findings showed that corporate governance had a positive relation to board characteristics among the corporations. This research failed to focus on CG influence on other variables such as financial performance. In addition, the study was conducted among state corporations and therefore its findings cannot be generalized in the banking industry as their nature of operations and risks are different.

Mwangi (2018) surveyed audit committee features impact on the quality of Kenya's Non-Commercial State Corporations' financial reporting. The goal of the research was to determine the impact of independence of audit committee, diversity, financial competence as well as meetings on financial reporting quality. The research used a census sample of 72 state non-commercial corporations and used a descriptive research design. In addition, descriptive as well as inferential analysis approaches were used in the research. The study's results revealing audit committee meetings possessed statistically substantial correlation with financial reporting quality. The research, though, concentrated on financial reporting, however the current research will be limited to financial performance of banks in Kenya.

Rono (2019) aimed to determine the impact of board gender diversity on Kenya's commercial bank's business performance. The research was done via an explanatory research design with a population of 146 workers and a sample of 106 respondents. Purposive sampling technique was deployed for this particular study and a closed-ended questionnaire was utilized in primary data collection. Regression analysis was conducted. The conclusions indicate that board gender diversity and business performance have a strong as well as substantial relationship. The research discovers that board gender diversity is crucial for leadership capacity building in the organization. The study presents a conceptual gap as other attributes of CG were not considered.

Ibrahim, Ouma and Koshal (2019) examined gender diversity impact on the financial performance of Kenyan insurance companies. The research looked at data from Kenya's 55 insurance companies. The female directors' number on the boards of Kenyan insurance companies was used to measure gender diversity. A total of 412 board

directors, CEOs, and chief finance officers provided primary data. To interpret the data, descriptive as well as inferential statistics were utilized. In assessing the firm's performance, the accounting-based assessments of ROA as well as ROE were used. The regression analysis outcomes show gender diversity has a substantial as well as positively impacted financial performance of Kenyan insurance organizations. The research presents a conceptual gap as other attributes of CG were not considered.

Miruka (2020) pursued to find corporate governance impact on Kenyan banks financial performance. Precisely, the study focused on board independence effect on financial NIC bank performance. 135 employees at 8 NIC bank branches within Nairobi Central Business District served as the research population. Stratification was done based on three management levels: Managers, head of departments and operations staff where a sample of 101 employees was sampled. A questionnaire was utilized for data collection while 81 responded. The data analysis was performed via SPSS while the results presented in Figures and Tables. The study revealed that an independent board results in candid discussion of pertinent issues and positively impacts on performance. The research reveals a conceptual gap as it concentrated on only one aspect of CG attribute.

2.5 Summary of the Literature Review and Research Gaps

The theoretical reviews showed the predicted affiliation between CG attributes and the financial performance. Major influencers of financial performance have been discussed. From the reviewed studies, there is a knowledge gap requiring to be filled. From the studies reviewed, there are varied conclusions concerning the relation between CG attributes and financial performance. The differences from the studies can be explained on the basis of different operationalization of CG attributes by different researchers thereby indicating that findings are dependent on operationalization model.

Further, the prior studies concentrated on the influence of CG attributes on performance leaving a gap on financial performance which is the current research focus.

Additionally, many studies done employed different designs for which some relied on empirical review to conclude while others relied on existing literature in measuring how the variables relate. Researchers showed varied inconclusive findings and failed to indicate the exact relationship that CG attributes as measured by ownership concentration, gender diversity as well as board autonomy has on financial performance. This shows the need for more research in future studies to close the gap through conceptualizing the effect of CG attributes on financial performance.

2.6 Conceptual Framework

Figure 2.1 displays the predicted relation between the variables. CG attributes being the predictor variable given by ownership concentration, gender diversity and board independence. The control variables were capital adequacy indicated by core capital to weighted assets risk, credit risk shown by NPL to total loans and total assets natural log showing bank size. Financial performance was the response variable given by ROA.

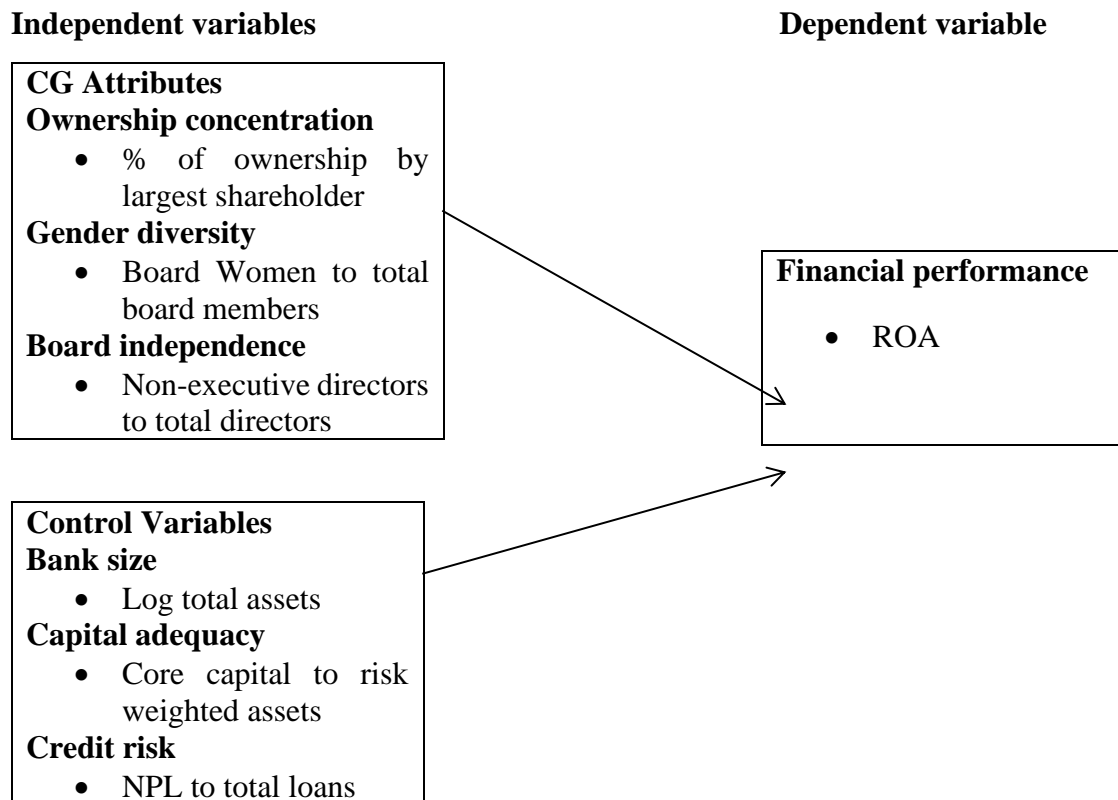


Figure 2.1: The Conceptual Model

Source: Researcher (2021)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter designates the approaches utilized in accomplishing the research objective which was to determine how CG attributes affects financial performance. In particular, the study highlights the; the design, data collection, diagnostic tests as well as analysis.

3.2 Research Design

A descriptive design was adopted to determine how CG attributes and bank financial performance relate. This design was appropriate since the nature of the phenomena was of key interest to the researcher (Khan, 2008). As per Cooper and Schindler (2008), it was also sufficient in defining the interrelationships of the phenomena. This design also validly and accurately represented the variables thereby giving sufficient answers to the research questions.

3.3 Population

A population is all observations from a collection of concern like events specified in an investigation (Burns & Burns, 2008). The current study's population was all the 38 banks as of December 2020. The research used a census technique because the population was relatively small, and thus all elements of the population were studied (see appendix I).

3.4 Data Collection

Secondary data was depended on in this investigation that was sourced from annual published financials of the banks from 2016 to 2020 and taken in forms of data collection. The study period was chosen as it provided adequate data for robust regression analysis. The publications were extracted from CBK financial publications

of the specific banks. The specific data collected included net income, shares held by largest shareholder, total shares, board members number, figure of women in the board, non-executive directors' number, total assets, total loans, NPLs, risk weighted assets and core capital.

3.5 Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, multicollinearity, homogeneity and autocorrelation. The assumption of normality is that the dependent variable's residual would be normally distributed and closer to the mean. This was accomplished by use of the Jarque-Bera Test. In instances where one of the variables had no normal distribution, it was adjusted using the logarithmic adjustment methodology. Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. This property was ascertained via the augmented Dickey Fuller test. In the event the data does not meet this property, the data was transformed using natural logarithm. Robust regression was also used as it provides better regression coefficients than ordinary least square (Khan, 2008).

Autocorrelation is a measure of how similar one time series is when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test and in the event that the presumption is breached the robust standard errors were used in the model. Multicollinearity exists when a perfect or near perfect linear relation is made between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized. Any multicollinear variable was eliminated and a new measurement used in place of the variable having co-linearity. Heteroskedasticity confirms if the errors variance in a regression lies among the

independent variables. This was tested using the Levene test and if data does not meet the homogeneity of variances assumption, robust regression analysis was employed as it provides better regression coefficients when outliers exist in the data (Burns & Burns, 2008).

3.6 Data Analysis

In data analysis, version 25 of SPSS software was used. Tables presented the findings in quantitative manner. Descriptive statistics were employed in the calculation of central tendency measures as well as dispersion such as mean as well as standard deviation for every variable. Inferential statistics relied on correlation as well as regression. Correlation determined the magnitude of the affiliation between the variables in the research and a regression determined cause and effect among variables. A multivariate regression linearly determined the relation between the dependent as well as independent variables.

3.6.1 Analytical Model

The following equation was applicable:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where: Y = Financial performance given as net income to total assets

β_0 = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = are the regression coefficients

X_1 = Gender diversity as measured by the ratio of women in the board to total board members

X_2 = Ownership concentration given as proportion of common shares held by the largest shareholder divided by cumulative common shares in issue

X_3 = Board independence as measured by the ratio of non-executive directors to total directors in the board

X_4 = Credit risk as given by the ratio of NPL to total loans

X_5 = Capital adequacy as measured by the ratio of core capital to risk weighted assets

X_4 = Bank size given by the natural logarithm of total assets

ε =error term

3.6.2 Tests of Significance

Parametric tests were used to determine the general model's and each individual variable's relevance. The F-test determined the overall model's significance and this was achieved by means of ANOVA while a t-test determined coefficient significance.

CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS

4.1 Introduction

This chapter deals with the analysis of data. The objective of the research was to establish the relationship between corporate governance attributes and financial performance among banks in Kenya. Patterns were studied by descriptive and inferential analysis, that were then analyzed and conclusions drawn on them, in accordance with the specific objectives.

4.2 Descriptive Statistics

The study sought to describe the data in terms of their mean and standard deviations. The descriptive analysis was necessary as it helps in understanding the characteristics of the collected data before conducting inferential analysis. The results are as shown in

Table 4.1

Table 4.1: Descriptive Results

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	190	-.570	.390	.04121	.127951
Gender diversity	190	.171	.600	.48227	.082894
Ownership concentration	190	.029	.950	.61453	.156674
Independence	190	.571	.944	.86980	.069755
Credit risk	190	.025	1.419	.48957	.258232
Capital adequacy	190	.023	1.962	.24336	.201590
Bank size	190	6.072	8.730	7.79048	.555361
Valid N (listwise)	190				

Source: Research Findings (2021)

Table 4.1 shows the descriptive analysis, with 190 observations for each variable based on the product of the number of cross-sectional units and the number of periods studied ($38 \times 5 = 190$). The dependent variable was ROA while the independent variable was

corporate governance attributes (gender diversity, ownership concentration and board independence). Finally, the control variables were credit risk, capital adequacy and bank size.

4.3 Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, Multicollinearity test, homogeneity of variance and autocorrelation.

4.3.1 Normality Test

To test whether the collected data assumed a normal distribution, normality test was conducted using the Jarque-Bera Test. The threshold was that, if the p value is greater than 0.05, then the data assumes a normal distribution.

Table 4.2: Test for Normality

	Jarque-Bera Coefficient	P-value
ROA	3.589	0.201
Gender diversity	6.305	0.303
Ownership concentration	4.429	0.405
Credit risk	2.764	0.416
Capital adequacy	3.154	0.328
Bank size	4.240	0.401
Gender diversity	4.146	0.302

Source: Research Findings (2021)

The normality test results revealed a p- value above 0.05 thus the null hypothesis rejection and acceptance of the alternate hypothesis meaning the normality test revealing normal distribution in the data.

4.3.2 Multicollinearity Test

Multicollinearity exists when a perfect or near perfect linear relation exist between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized.

Table 4.3: Multicollinearity

Variable	Collinearity Statistics	
	Tolerance	VIF
Gender diversity	0.587	1.704
Ownership concentration	0.782	1.279
Board independence	0.535	1.869
Credit risk	0.601	1.664
Capital adequacy	0.598	1.672
Bank size	0.621	1.610

Source: Research Findings (2021)

The outcomes in Table 4.3 specify that all the variables had a VIF values <10 and tolerance values >0.2 suggesting that Multicollinearity did not exist.

4.3.3 Heteroskedasticity test

Cross-sectional units tend to exhibit homoskedastic error processes; however, unit-specific variances are more common and are referred to as group-wise heteroscedasticity. The command with the heftiest weight is used in computing the Breuch Pagan group wise Heteroscedasticity when residuals are utilized. The null hypothesis states that $\sigma^2_i = \sigma^2$ for $i = 1 \dots Ng$, where Ng is the number of cross-sectional units. Table 4.4 shows Heteroskedasticity Test Results.

Table 4.4: Heteroskedasticity Results

Modified Wald test for group wise heteroskedasticity in regression model
H0: $\sigma^2(i) = \sigma^2$ for all i
chi2 (190) = 324.52
Prob>chi2 = 0.0934

Source: Research Findings (2021)

The null hypothesis of Homoskedastic error terms is not rejected, according to the results in Table 4.4, which are supported by a 0.0934 p-value

4.3.4 Autocorrelation Test

Autocorrelation is a measure of how similar one time series was when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test.

Table 4.5: Test of Autocorrelation

Wooldridge test for autocorrelation in panel data	
H0: no first-order autocorrelation	
F(1, 190) =	0.368
Prob> F =	0.5943

Source: Research Findings (2021)

From the results of Table 4.5, the null hypothesis of no serial correlation is not rejected given that the p-value is significant (p-value = 0.5943).

4.3.5 Stationarity Test

Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. Table 4.6 shows Levin-Lin Chu unit root test results.

Table 4.6: Levin-Lin Chu unit-root test

Levin-Lin Chu unit-root test			
Variable	Hypothesis	p value	Verdict
ROA	Ho: Panels contain unit roots	0.0000	Reject Ho
Gender diversity	Ho: Panels contain unit roots	0.0000	Reject Ho
Ownership concentration	Ho: Panels contain unit roots	0.0000	Reject Ho
Board independence	Ho: Panels contain unit roots	0.0000	Reject Ho
Credit risk	Ho: Panels contain unit roots	0.0000	Reject Ho
Capital adequacy	Ho: Panels contain unit roots	0.0000	Reject Ho
Bank size	Ho: Panels contain unit roots	0.0000	Reject Ho

Source: Research Findings (2021)

Based on the findings in Table 4.6, the null hypotheses that: Panels contain unit roots were rejected for all the variables, because the p values were less than 0.05. This implied that the panel data for all the variables were stationary.

4.4 Correlation Results

Correlation analysis was carried out to establish the strength and direction of association between each predictor variable and the response variable. The results in Table 4.7 show the nature of relationships between the study variables in terms of magnitude and direction.

Table 4.7: Correlation Results

		ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
ROA	Pearson Correlation	1						
	Sig. (2-tailed)							
Gender diversity	Pearson Correlation	.007	1					
	Sig. (2-tailed)	.921						
Ownership concentration	Pearson Correlation	.157*	-.076	1				
	Sig. (2-tailed)	.031	.298					
Independence	Pearson Correlation	.165*	.933**	-.001	1			
	Sig. (2-tailed)	.023	.000	.991				
Credit risk	Pearson Correlation	-.484**	.162*	.089	.152*	1		
	Sig. (2-tailed)	.000	.025	.222	.037			
Capital adequacy	Pearson Correlation	.053	.079	.049	-.061	.111	1	
	Sig. (2-tailed)	.468	.281	.498	.406	.127		
Bank size	Pearson Correlation	.113	.088	.106	.076	-.013	.124	1
	Sig. (2-tailed)	.122	.229	.147	.301	.854	.089	

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).
 c. Listwise N=190

Source: Research Findings (2021)

The results in Table 4.7 reveal that gender diversity and ROA are positively but not significantly correlated ($r=0.007$) at 5 % significance level. In addition, the results show that ownership concentration and ROA are positively and significantly correlated ($r=0.157$) at 5 % significance level. This implies that both ownership concentration and

ROA change in the same direction. Further, results show that board independence and ROA are positively and significantly correlated ($r=0.165$) at 5 % significance level. This implies that both board independence and ROA change in the same direction. In regards to the control variables, credit risk exhibited a negative and significant association with ROA while bank size had a positive but not significant association with ROA. Capital adequacy did not exhibit a significant association with ROA as shown by a p value greater than 0.05.

4.5 Regression Results

Regression analysis was carried out to establish the extent to which ROA is explained by the selected variables. The regression results were presented in Table 4.8 to 4.10.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508 ^a	.258	.234	.111979

a. Predictors: (Constant), Bank size, Credit risk, Ownership concentration, Capital adequacy, Independence, Gender diversity

Source: Research Findings (2021)

From the findings as represented by the adjusted R^2 , the independent variables that were studied explained 25.8% of the variations in ROA among banks in Kenya. This therefore means the six variables contributed 25.8% of the variations in ROA of banks in Kenya while other factors not studied in this research contribute 74.2%.

Table 4.9: ANOVA Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.800	6	.133	10.627	.000 ^b
	Residual	2.295	183	.013		
	Total	3.094	189			

a. Dependent Variable: ROA
b. Predictors: (Constant), Bank size, Credit risk, Ownership concentration, Capital adequacy, Independence, Gender diversity

Source: Research Findings (2021)

ANOVA statistics in Table 4.9 show that the data had a 0.000 level of significance hence this indicates that the data is ideal for making conclusions on the variables.

Table 4.9: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.224	.095		3.866	.000
	Gender diversity	.002	.002	.042	.619	.649
	Ownership concentration	.322	.039	.346	6.324	.000
	Board independence	.301	.024	.292	5.988	.000
	Credit risk	-.417	.028	-.406	-8.001	.000
	Capital adequacy	.003	.003	.002	.110	.834
	Bank size	.207	.016	.198	3.403	.001

a. Dependent Variable: ROA

Source: Research Findings (2021)

The coefficient of regression model was as below;

$$Y = 0.224 + 0.322X_1 + 0.301X_2 - 0.417X_3 + 0.207X_4$$

Where:

Y = ROA X₁ = Ownership concentration; X₂ = board independence; X₃ = credit risk; X₄ = Bank size

4.6 Discussion of Research Findings

The objective of this study was to establish the effect of CG attributes on ROA of banks in Kenya. The study utilized a descriptive design while population was the 38 banks. Data was obtained from all the 38 banks. The study relied on secondary data which was obtained from CBK and individual firms annual reports. The specific attributes of CG considered were; gender diversity, ownership concentration and board independence. The control variables were credit risk, bank size and capital adequacy. Data was analyzed using both descriptive and inferential statistics. The results are discussed in this section.

The results of correlation analysis revealed that gender diversity did not have a significant association with ROA among banks in Kenya. Although the association was positive, the magnitude was not significant. The results further revealed that ownership concentration had a positive and significant association with ROA which implies that when the ownership concentration is increasing, ROA is also positive. Board independence exhibited a positive and significant association with ROA implying that firms with more independent boards are likely to have a higher level of ROA. The association between credit risk was found to be negative and significant while the association between bank size and ROA was found to be positive but not statistically significant. Capital adequacy did not exhibit a significant association with ROA.

The regression results revealed that the six selected predictor variables explain 25.8% of changes in ROA among banks in Kenya. The explanatory power was also significant as the p value was 0.000 which is less than 0.05. This implies that the model was sufficient in describing the cause and effect among the study variables. Individually, gender diversity does not have a significant influence on ROA while the results further revealed that ownership concentration and board independence were significant

determiners of ROA. Credit risk was found to have a significant negative effect on ROA while bank size was found to have a significant positive influence on the level of ROA while capital adequacy was not statistically significant.

These results concur with Qadorah and Fadzil (2018) who investigated the correlation between internal corporate governance mechanisms and board of directors' features (board independence and board meeting frequency) and firm performance in Jordanian listed companies. The research utilized cross-sectional data from the Amman Stock Exchange for 2013, with 64 industrial firms serving as the sample. As an accounting-based performance metric, firm performance was determined by ROA. The conclusions revealing board independence is linked to ROA in a substantial as well as positive way. The current study discovered that board meetings frequency had insignificant relationship on firm performance as calculated by ROA.

The results also concur with Afzalur (2019) investigated if board independence has an impact on the economic performance of Bangladeshi listed firms. This research uses a simultaneous equation approach to monitor the possible endogeneity problem by using data from 135 Dhaka Stock Exchange listed firms and accounting and market performance indicators. According to this report, board independence and firm economic results do not have a positive relationship. In addition, board size has a major positive effect on both board independence and firm results, according to this report.

CHAPTER FIVE: SUMMARY, CONCLUSION AND

RECOMMENDATIONS

5.1 Introduction

This chapter reviews the results from the previous chapter, it further derives conclusions as well as the limitations encountered during the study. In addition, it provides

recommendation for policy makers and gives suggestions on areas where further studies can be done.

5.2 Summary of Findings

The objective of this research was to assess how CG attributes influence ROA of Kenyan banks. The selected variables for this investigation included; gender diversity, ownership concentration, board independence, capital adequacy, credit risk and bank size. A descriptive research design was selected to complete the research. Secondary data was gathered from CBK and an analysis made using SPSS. Yearly data for 38 banks for five years from 2016 to 2020 was obtained from their annual reports.

The first objective was to establish the effect of gender diversity on ROA among banks in Kenya. The correlation results at 5 % significance level show that gender diversity had a positive but not significant correlation with ROA. This implies that improvement in gender diversity would not necessarily lead to increase in ROA. Regression results ($\beta=0.002$, $p=0.649$) show that there was a positive but not significant effect of gender diversity on ROA among banks Kenya.

The second objective was to assess the effect of ownership concentration on ROA among banks in Kenya. The correlation results at 5 % significance level show that ownership concentration had a positive correlation with ROA. This implies that improvement in ownership concentration would lead to increase in ROA. Regression results ($\beta=0.322$, $p=0.000$) show that there was a positive and significant effect of ownership concentration on ROA among banks.

The third objective was to examine the effect of board independence on ROA among Kenyan banks. The correlation results at 5 % significance level show that board independence had a positive correlation with ROA. This implies that improvement in

board independence would lead to increase in ROA. Regression results ($\beta=0.301$, $p=0.000$) show that there was a positive and significant effect of board independence on ROA among banks.

The fourth objective was to examine the effect of credit risk on ROA among Kenyan banks. The correlation results at 5 % significance level show that credit risk had a negative correlation with ROA. This implies that an increase in credit risk would lead to a decrease in ROA. Regression results ($\beta=-0.417$, $p=0.000$) show that there was a negative and significant effect of credit risk on ROA among banks.

The fifth objective was to examine the effect of capital adequacy on ROA among Kenyan banks. The correlation results at 5 % significance level show that capital adequacy had a positive correlation with ROA. The correlation was however not statistically significant. Regression results ($\beta=0.003$, $p=0.834$) show that there was a positive and not significant effect of capital adequacy on ROA among Kenyan banks.

The sixth objective was to examine the effect of bank size on ROA among Kenyan banks. The correlation results at 5 % significance level show that bank size had a positive correlation with ROA. This implies that improvement in bank size would lead to increase in ROA. Regression results ($\beta=0.207$, $p=0.001$) show that there was a positive and significant effect of bank size on ROA among Kenyan banks.

5.3 Conclusions

The study purpose of the research was to find out the association between corporate governance attributes and ROA. The findings indicated that gender diversity had a positive but not significant effect on ROA. This may imply that banks with more gender diversity do not necessarily have high level of ROA.

The study results further indicated that ownership concentration had a positive and significant effect on ROA which might mean that boards with a high proportion of ownership concentration are beneficial in ROA. This might be explained by the fact that most banks with high percentage of individual ownership have some family members involved in the daily management of the firm which can contribute to better decision making and effective monitoring.

The study results showed that board independence had a positive and significant effect on ROA. This may mean that the higher proportion of independent non-executive and executive directors increased board effectiveness in monitoring managerial opportunism and preventing self-interest thereby consequently, increased ROA.

In addition, the results revealed that credit risk has a significant negative effect on ROA. This implies that firms with high levels of NPLs relative to total loans are likely to record low ROA. This can be explained by the fact that high NPLs leads to a reduction in interest income. Further, the study revealed that bank size has a significant positive effect on ROA. This might be explained by the fact that banks with more assets are able to take advantage of investment opportunities when they arise.

5.4 Recommendations for Policy and Practice

The study findings reveal that ownership concentration had a positive and significant effect on ROA. The study therefore recommends that owners of banks should strive to keep a significant shareholding as this contributes to ROA of the firms. Policy makers such as CBK should also come with policies and guidelines of the percentage of shares that can be held by the largest shareholder.

From the study findings, board independence had a significant effect on ROA. Therefore, the study recommends that CBK which is the regulator should make it

mandatory to all banks that they should have board independence. Furthermore, an effective board should have a majority of non-executive directors, who are seen to give greater performance due to their independence from firm management, which allows them to make suitable and non-partisan judgments.

Further, the study found out that credit risk has a significant negative influence on ROA of banks. This study recommends that banks should come up with effective evaluation mechanisms to ensure that they do not end up with high level of NPLs in their books. The study also recommends that banks should strive to increase their asset base as big banks are likely to perform better than small banks.

5.5 Limitations of the Study

The focus was on some of the elements that are thought to affect the ROA of Kenyan banks. The study focused on six explanatory variables in particular. However, there are other factors that are likely to influence a firm's ROA. Some are controlled by the company, such as management efficiency and internal controls, while others are not.

The research used secondary quantitative data. The study did not take into account qualitative data that could explain other factors that influence the relationship between CG attributes and bank's ROA. Qualitative methods like focus groups, open-ended surveys, and interviews can aid in the development of more definite outcomes.

The study focused on a five-year period (2016 to 2020). It's unclear whether the results will last for a longer period of time. It is also unclear whether similar results will be achieved after 2020. In order to account for key economic events, the study should have been conducted over a longer period of time.

The researchers utilized an OLS regression model to analyze the data. Because of the limitations of employing regression models, such as erroneous and deceptive outcomes that cause the value of the variable to change, it was not possible to generalize the conclusions of the research with accuracy. More so the result could be different if more data was added in the regression.

5.6 Suggestions for Further Research

The study findings revealed an R square of 25.8%. This implies that there are other factors that affect ROA among the banks that were not addressed by the research. Other researches ought thus to focus on other factors for example; CEO tenure, incentive compensation, board composition in terms of expertise, audit committee, among other corporate governance aspects that affect ROA among the banks.

The study was limited to banks in Kenya. Additional research on other Kenyan companies should be conducted. Future research should also look into how CG attributes affect other factors besides the ROA, such as company value, efficiency, and growth, to name a few.

The focus of this research was drawn to the last five years. Future studies may span a longer time period, such as ten or twenty years, and might have a significant impact on this study by either complementing or contradicting its conclusions. A longer study has the advantage of allowing the researcher to capture the effects of business cycles such as booms and recessions.

Finally, this research relied on a regression model, which has its own set of limitations, such as errors and misleading results when a variable is changed. Future study should concentrate on models such as the Vector Error Correction Model (VECM) in order to investigate the numerous relationships between CG attributes and ROA.

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APPENDICES

Appendix I: Commercial Banks in Kenya

1	ABSA Bank Kenya	1916
2	Access Bank Kenya	8th January 1985
3	African Banking Corporation Limited	8th December 1994
4	Bank of Africa Kenya Limited	30th April 2004
5	Bank of Baroda (K) Limited	1st July 1953
6	Bank of India	5th June 1953
7	Citibank N.A Kenya	1st July 1974
8	Consolidated Bank of Kenya Limited	18th December 1989
9	Co-operative Bank of Kenya Limited	1st July 1968
10	Credit Bank Limited	30th November 1994
11	Development Bank of Kenya Limited	20th September 1996
12	Diamond Trust Bank Kenya Limited	15th November 1994
13	DIB Bank Kenya Limited	13th April 2017
14	Ecobank Kenya Limited	16th June 2008
15	Equity Bank Kenya Limited	28th December 2004

16	Family Bank Limited	1st May 2007
17	First Community Bank Limited	29th April 2008
18	Guaranty Trust Bank (K) Ltd	13th January 1995
19	Guardian Bank Limited	20th December 1995
20	Gulf African Bank Limited	1st November 2007
21	Habib Bank A.G Zurich	1st July 1978
22	I&M Bank Limited	27th March 1996
23	Kingdom Bank Limited	2nd March 2010
24	KCB Bank Kenya Limited	1st January 1896
25	Mayfair CIB Bank Limited	20th June 2017
26	Middle East Bank (K) Limited	28th November 1980
27	M-Oriental Bank Limited	8th February 1991
28	National Bank of Kenya Limited	1st January 1968
29	NCBA Bank Kenya PLC	5th November 2019
30	Paramount Bank Limited	5th July 1995
31	Prime Bank Limited	3rd September 1992
32	SBM Bank Kenya Limited	1st April 1996

33	Sidian Bank Limited	23rd March 1999
34	Spire Bank Ltd	23rd June 1995
35	Stanbic Bank Kenya Limited	1st June 2008
36	Standard Chartered Bank Kenya Limited	1910
37	UBA Kenya Bank Limited	25th September 2009
38	Victoria Commercial Bank Limited	11th January 1996

Source: CBK (2020)

Appendix II: Research Data

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
1	2016	-0.160	0.327	0.662	0.727	0.513	0.172	8.216
1	2017	-0.060	0.489	0.655	0.889	0.456	0.165	8.218
1	2018	0.150	0.500	0.644	0.900	0.676	0.153	8.251
1	2019	0.040	0.500	0.591	0.900	0.745	0.156	8.269
1	2020	0.050	0.500	0.519	0.900	0.723	0.184	8.317
2	2016	0.140	0.544	0.492	0.944	0.274	0.159	8.338
2	2017	0.150	0.544	0.504	0.944	0.325	0.164	8.424
2	2018	0.120	0.544	0.538	0.944	0.289	0.162	8.414
2	2019	0.090	0.544	0.525	0.944	0.295	0.158	8.456
2	2020	0.110	0.489	0.505	0.889	0.275	0.160	8.486
3	2016	0.010	0.475	0.552	0.875	0.643	1.880	8.207
3	2017	0.020	0.475	0.492	0.875	0.666	1.962	8.288
3	2018	0.020	0.475	0.490	0.875	0.664	0.305	8.377
3	2019	0.040	0.475	0.442	0.875	0.653	0.323	8.425
3	2020	0.060	0.475	0.416	0.875	0.637	0.347	8.452
4	2016	0.130	0.489	0.607	0.889	0.116	0.160	7.558
4	2017	0.120	0.314	0.575	0.714	0.132	0.184	7.620
4	2018	0.130	0.314	0.539	0.714	0.166	0.179	7.588
4	2019	0.170	0.314	0.470	0.714	0.147	0.180	7.565
4	2020	0.220	0.314	0.482	0.714	0.127	0.164	7.541
5	2016	0.040	0.314	0.587	0.714	0.701	0.394	8.058
5	2017	0.050	0.418	0.636	0.818	0.691	0.423	8.124

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
5	2018	0.010	0.418	0.614	0.818	0.702	0.457	8.166
5	2019	0.010	0.418	0.645	0.818	0.650	0.540	8.229
5	2020	0.070	0.433	0.647	0.833	0.538	0.439	8.329
6	2016	-0.100	0.433	0.740	0.833	0.733	0.273	8.577
6	2017	-0.080	0.433	0.740	0.833	0.661	0.283	8.628
6	2018	0.020	0.433	0.743	0.833	0.595	0.264	8.651
6	2019	0.390	0.433	0.721	0.833	0.608	0.256	8.699
6	2020	0.060	0.433	0.748	0.833	0.550	0.276	8.730
7	2016	-0.040	0.433	0.826	0.833	0.383	0.179	8.002
7	2017	0.150	0.457	0.830	0.857	0.355	0.179	8.051
7	2018	0.310	0.457	0.833	0.857	0.403	0.185	8.049
7	2019	-0.020	0.457	0.833	0.857	0.573	0.173	8.143
7	2020	0.110	0.457	0.843	0.857	0.561	0.157	8.160
8	2016	0.350	0.467	0.722	0.867	0.289	0.110	7.982
8	2017	-0.180	0.467	0.730	0.867	0.551	0.094	8.026
8	2018	0.390	0.467	0.729	0.867	0.431	0.079	8.077
8	2019	-0.190	0.475	0.741	0.875	0.765	0.051	8.189
8	2020	0.050	0.475	0.759	0.875	0.580	0.028	8.282
9	2016	0.100	0.475	0.817	0.875	0.248	0.188	8.020
9	2017	0.110	0.475	0.817	0.875	0.241	0.155	8.044
9	2018	0.120	0.475	0.817	0.875	0.358	0.229	7.973
9	2019	0.040	0.475	0.817	0.875	0.228	0.148	7.974
9	2020	0.050	0.489	0.817	0.889	0.221	0.145	7.995

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
10	2016	0.020	0.489	0.652	0.889	0.514	0.217	8.188
10	2017	0.020	0.489	0.713	0.889	0.530	0.213	8.236
10	2018	0.190	0.489	0.780	0.889	0.587	0.228	8.271
10	2019	0.020	0.489	0.775	0.889	0.693	0.023	8.329
10	2020	0.030	0.489	0.755	0.889	0.607	0.162	8.351
11	2016	0.090	0.489	0.724	0.889	0.535	0.235	8.390
11	2017	0.090	0.489	0.721	0.889	0.592	0.244	8.480
11	2018	0.100	0.489	0.710	0.889	0.508	0.251	8.528
11	2019	0.040	0.489	0.651	0.889	0.693	0.236	8.572
11	2020	0.020	0.489	0.710	0.889	0.763	0.246	8.626
12	2016	0.020	0.489	0.822	0.889	0.795	0.229	7.206
12	2017	0.020	0.489	0.819	0.889	0.785	0.146	7.199
12	2018	0.030	0.489	0.820	0.889	0.697	0.185	7.224
12	2019	0.040	0.489	0.812	0.889	0.668	0.190	7.319
12	2020	0.030	0.499	0.805	0.899	0.683	0.211	7.355
13	2016	-0.060	0.499	0.950	0.899	1.307	0.423	7.723
13	2017	-0.190	0.499	0.950	0.899	1.229	0.457	7.677
13	2018	-0.190	0.499	0.950	0.899	1.033	0.540	7.537
13	2019	-0.020	0.499	0.950	0.899	0.810	0.701	7.499
13	2020	-0.040	0.499	0.950	0.899	0.746	0.299	7.479
14	2016	0.300	0.500	0.791	0.900	0.156	0.318	7.687
14	2017	0.240	0.500	0.793	0.900	0.174	0.250	7.724
14	2018	0.200	0.500	0.790	0.900	0.336	0.194	7.561

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
14	2019	0.170	0.500	0.789	0.900	0.322	0.160	7.625
14	2020	0.140	0.500	0.787	0.900	0.377	0.166	7.619
15	2016	0.000	0.509	0.782	0.909	0.393	0.212	8.216
15	2017	-0.200	0.509	0.884	0.909	0.444	0.202	8.218
15	2018	-0.010	0.509	0.784	0.909	0.384	0.197	8.251
15	2019	-0.020	0.509	0.785	0.909	0.328	0.204	8.269
15	2020	0.120	0.509	0.791	0.909	0.270	0.204	8.317
16	2016	0.020	0.509	0.392	0.909	0.142	0.269	7.392
16	2017	0.030	0.509	0.391	0.909	0.104	0.144	7.391
16	2018	0.130	0.509	0.392	0.909	0.090	0.208	7.427
16	2019	0.380	0.509	0.394	0.909	0.188	0.199	7.495
16	2020	0.010	0.509	0.393	0.909	0.295	0.195	7.609
17	2016	-0.050	0.509	0.394	0.909	0.582	0.113	7.709
17	2017	0.050	0.509	0.620	0.909	0.529	0.115	7.793
17	2018	-0.070	0.509	0.648	0.909	0.569	0.140	7.796
17	2019	0.050	0.509	0.654	0.909	0.462	0.153	7.809
17	2020	0.050	0.509	0.638	0.909	0.507	0.091	7.739
18	2016	0.070	0.509	0.645	0.909	0.437	0.234	8.142
18	2017	0.060	0.517	0.668	0.917	0.465	0.265	8.216
18	2018	0.050	0.517	0.691	0.917	0.486	0.255	8.248
18	2019	0.040	0.517	0.541	0.917	0.495	0.239	8.287
18	2020	0.030	0.517	0.478	0.917	0.615	0.260	8.293
19	2016	-0.210	0.517	0.492	0.917	1.006	0.171	7.027

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
19	2017	-0.050	0.523	0.492	0.923	0.797	0.176	7.000
19	2018	-0.050	0.523	0.492	0.923	0.966	0.190	6.977
19	2019	-0.080	0.523	0.492	0.923	0.366	0.202	6.937
19	2020	0.030	0.523	0.492	0.923	0.446	0.228	6.934
20	2016	-0.570	0.535	0.645	0.935	1.419	0.135	6.858
20	2017	-0.530	0.600	0.668	0.909	0.867	0.158	6.861
20	2018	0.080	0.600	0.669	0.909	0.520	0.187	6.961
20	2019	0.060	0.600	0.688	0.909	0.475	0.162	7.039
20	2020	0.000	0.600	0.713	0.909	0.466	0.187	7.118
21	2016	0.060	0.600	0.533	0.909	0.381	0.202	8.338
21	2017	0.070	0.600	0.541	0.909	0.383	0.321	8.424
21	2018	0.060	0.600	0.491	0.909	0.394	0.391	8.414
21	2019	0.040	0.600	0.477	0.909	0.471	0.170	8.456
21	2020	0.120	0.600	0.416	0.909	0.279	0.153	8.486
22	2016	0.130	0.600	0.690	0.909	0.285	0.391	8.338
22	2017	0.160	0.600	0.692	0.909	0.295	0.181	8.424
22	2018	0.200	0.600	0.675	0.909	0.266	0.177	6.761
22	2019	0.230	0.600	0.581	0.909	0.280	0.170	6.794
22	2020	0.020	0.600	0.561	0.909	0.277	0.153	8.288
23	2016	0.060	0.314	0.428	0.714	0.240	0.189	8.207
23	2017	0.060	0.418	0.558	0.818	0.261	0.202	8.288
23	2018	0.100	0.418	0.615	0.818	0.240	0.182	8.377
23	2019	0.080	0.418	0.619	0.818	0.216	0.186	8.425

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
23	2020	0.120	0.418	0.571	0.818	0.820	0.179	8.452
24	2016	0.160	0.600	0.628	0.909	0.888	0.261	8.486
24	2017	0.140	0.600	0.631	0.909	0.801	0.163	8.338
24	2018	0.110	0.600	0.602	0.917	0.855	0.201	8.424
24	2019	0.110	0.517	0.500	0.917	0.868	0.193	6.072
24	2020	0.170	0.517	0.367	0.917	0.078	0.192	6.505
25	2016	0.050	0.517	0.645	0.917	0.091	0.210	7.511
25	2017	0.010	0.517	0.668	0.917	0.148	0.154	7.538
25	2018	-0.090	0.517	0.503	0.917	0.191	0.180	7.508
25	2019	0.100	0.517	0.382	0.917	0.239	0.166	7.640
25	2020	-0.030	0.517	0.173	0.917	0.265	0.196	7.651
26	2016	0.050	0.457	0.667	0.857	0.221	0.195	8.390
26	2017	0.010	0.475	0.700	0.875	0.229	0.427	8.480
26	2018	0.090	0.475	0.700	0.875	0.253	0.393	8.528
26	2019	-0.030	0.475	0.700	0.875	0.303	0.571	8.572
26	2020	0.050	0.457	0.700	0.857	0.294	0.449	8.626
27	2016	-0.010	0.475	0.700	0.875	0.280	0.458	7.673
27	2017	0.070	0.538	0.727	0.938	0.284	0.350	7.797
27	2018	0.090	0.538	0.727	0.938	0.382	0.387	7.617
27	2019	-0.070	0.523	0.727	0.923	0.283	0.332	7.675
27	2020	-0.080	0.538	0.750	0.938	0.271	0.309	7.686
28	2016	0.010	0.457	0.750	0.857	0.267	0.139	7.125
28	2017	0.000	0.529	0.620	0.929	0.236	0.140	7.092

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
28	2018	0.080	0.529	0.676	0.929	0.241	0.072	7.102
28	2019	-0.070	0.489	0.640	0.889	1.139	0.054	7.169
28	2020	-0.250	0.489	0.622	0.889	0.939	0.037	7.165
29	2016	-0.140	0.600	0.637	0.917	0.728	0.210	7.469
29	2017	-0.160	0.600	0.602	0.917	0.673	0.206	7.421
29	2018	0.000	0.600	0.546	0.917	0.587	0.230	7.434
29	2019	0.010	0.600	0.563	0.917	0.476	0.223	7.441
29	2020	0.000	0.600	0.505	0.917	0.437	0.187	7.458
30	2016	-0.030	0.500	0.432	0.900	0.388	0.255	7.102
30	2017	0.010	0.500	0.347	0.900	0.347	0.241	7.097
30	2018	0.030	0.500	0.416	0.900	0.346	0.274	7.090
30	2019	0.040	0.500	0.439	0.900	0.348	0.295	7.118
30	2020	0.030	0.500	0.439	0.900	0.347	0.285	7.125
31	2016	0.020	0.400	0.302	0.800	0.310	0.168	7.198
31	2017	0.040	0.400	0.555	0.800	0.357	0.173	7.279
31	2018	0.060	0.400	0.605	0.800	0.369	0.222	7.338
31	2019	-0.230	0.400	0.649	0.800	0.683	0.225	7.416
31	2020	0.030	0.400	0.620	0.800	0.679	0.373	7.426
32	2016	0.030	0.509	0.545	0.909	0.594	0.206	6.505
32	2017	0.100	0.509	0.360	0.909	0.763	0.247	7.511
32	2018	0.030	0.509	0.424	0.909	0.754	0.233	7.538
32	2019	-0.040	0.509	0.403	0.909	1.087	0.165	7.508
32	2020	-0.040	0.509	0.364	0.909	1.053	0.144	7.640

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
33	2016	-0.100	0.600	0.029	0.917	1.011	0.172	7.651
33	2017	0.000	0.600	0.302	0.917	0.906	0.187	8.390
33	2018	0.030	0.600	0.302	0.917	0.889	0.181	8.480
33	2019	-0.080	0.600	0.266	0.917	0.530	0.168	8.528
33	2020	-0.030	0.600	0.379	0.917	0.526	0.172	8.572
34	2016	0.000	0.350	0.309	0.750	0.537	0.198	8.626
34	2017	0.000	0.350	0.453	0.750	0.452	0.212	7.673
34	2018	-0.110	0.350	0.480	0.750	0.403	0.209	7.797
34	2019	0.100	0.350	0.487	0.750	0.046	0.185	7.617
34	2020	0.090	0.433	0.462	0.833	0.075	0.195	7.675
35	2016	0.160	0.314	0.496	0.714	0.075	0.107	7.686
35	2017	0.190	0.314	0.611	0.714	0.084	0.175	7.125
35	2018	0.230	0.418	0.652	0.818	0.364	0.163	7.092
35	2019	0.190	0.418	0.658	0.818	0.560	0.127	7.102
35	2020	0.260	0.418	0.626	0.818	0.524	0.220	7.169
36	2016	0.270	0.418	0.654	0.818	0.526	0.277	7.165
36	2017	0.230	0.400	0.624	0.800	0.555	0.216	7.469
36	2018	0.220	0.475	0.689	0.875	0.025	0.223	7.421
36	2019	0.060	0.475	0.645	0.875	0.718	0.291	7.434
36	2020	-0.230	0.475	0.668	0.875	0.710	0.211	7.441
37	2016	-0.120	0.475	0.728	0.875	0.636	0.586	7.458
37	2017	-0.050	0.475	0.629	0.875	0.567	0.238	7.102
37	2018	0.060	0.171	0.609	0.571	0.491	0.387	7.097

Bank	Year	ROA	Gender diversity	Ownership concentration	Independence	Credit risk	Capital adequacy	Bank size
37	2019	0.050	0.171	0.739	0.571	0.492	0.388	7.090
37	2020	0.090	0.171	0.743	0.571	0.448	0.332	7.118
38	2016	0.130	0.171	0.517	0.571	0.423	0.291	7.125
38	2017	0.170	0.314	0.517	0.714	0.437	0.172	7.198
38	2018	-0.120	0.489	0.517	0.889	0.486	0.255	7.279
38	2019	0.040	0.489	0.517	0.889	0.392	0.227	7.338
38	2020	0.030	0.489	0.517	0.889	0.280	0.211	7.416

