

**MERGERS AND ACQUISITIONS, RISK MANAGEMENT, INSTITUTIONAL  
CHARACTERISTICS AND FINANCIAL PERFORMANCE OF  
COMMERCIAL BANKS IN KENYA**

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## DECLARATION

This thesis is my original work, and it has never been submitted to any other university for a degree award, in complete or in part.



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**By Justin Irungu Gachigo**

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## **DEDICATION**

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## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>ii</b>
<b>COPYRIGHT</b> .....	<b>iii</b>
<b>ACKNOWLEDGMENT</b> .....	<b>iv</b>
<b>DEDICATION</b> .....	<b>v</b>
<b>LIST OF TABLES</b> .....	<b>x</b>
<b>ABBREVIATIONS</b> .....	<b>xiii</b>
<b>ABSTRACT</b> .....	<b>xiv</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the study .....	1
1.1.1 Mergers and Acquisitions .....	2
1.1.2 Risk Management .....	11
1.1.3 Institutional Characteristics .....	13
1.1.4 Financial Performance .....	14
1.1.5 Commercial Banks in Kenya .....	16
1.2 Research Problem .....	17
1.3 Research Objectives .....	21
1.4 Value of the Study .....	22
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	<b>23</b>
2.1 Introduction .....	23
2.2 Theoretical Foundation .....	23
2.2.1 Synergies Theory .....	24
2.2.2 Resource based View Theory .....	26
2.2.3 Agency Theory .....	27
2.2.4 Concentration Theory .....	28
2.3 Review of Empirical Literature .....	28

2.3.1 Mergers and Acquisitions and Financial Performance .....	29
2.3.2 Mergers and Acquisitions, Risk Management, and Financial Performance .....	31
2.3.3 Mergers and Acquisitions, Institutional Characteristics, and Financial Performance .....	32
2.3.4 Mergers and Acquisitions, Risk Management, Institutional Characteristics, and Financial Performance .....	33
2.4 Summary of Literature Review and Research Gaps .....	34
2.5 The Conceptual Framework .....	40
2.6 Research Hypothesis .....	42
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>43</b>
3.1 Introduction .....	43
3.2 Research Philosophy .....	43
3.3 Research Design .....	45
3.4 Population .....	46
3.5 Data Collection .....	47
3.6 Diagnostic Tests .....	48
3.6.1 Independence Test .....	48
3.6.2 Linearity Test .....	48
3.6.3 Multicollinearity Test .....	49
3.6.4 Heteroscedasticity Test .....	49
3.7 Operationalization of Study Variables .....	50
3.8 Data Analysis .....	51
<b>CHAPTER FOUR: DESCRIPTIVE DATA ANALYSIS AND RESULTS .....</b>	<b>54</b>
4.1 Introduction .....	54
4.2 Descriptive Statistics .....	54
4.3 Diagnostic tests .....	58
4.3.1 Independence test before mergers and acquisitions .....	58

4.3.2 Linearity test before mergers and acquisitions .....	59
4.3.3 Multicollinearity test before mergers and acquisitions .....	59
4.3.4 Heteroscedasticity test before mergers and acquisitions .....	61
4.3.5 Normality test before mergers and acquisitions .....	61
4.3.7 Linearity test post mergers and acquisitions .....	63
4.3.8 Multicollinearity test post mergers and acquisitions .....	64
4.3.9 Heteroscedasticity test post mergers and acquisitions .....	65
4.3.10 Normality test post mergers and acquisitions .....	65
4.4. Correlation analysis .....	66
4.5 Chapter summary .....	72

**CHAPTER FIVE: HYPOTHESIS TESTING AND DISCUSSION OF FINDINGS**  
..... 75

5.1 Introduction .....	75
5.2 Mergers and acquisitions and financial performance among commercial banks in Kenya. ....	75
5.3 Mergers and acquisitions, institutional characteristics, and financial performance among commercial banks in Kenya .....	78
5.3.1 Step one of moderation .....	79
5.3.2 Step two of moderation .....	81
5.4 Mergers and acquisitions risk management Financial Performance .....	82
5.4.1 Step One of Testing the Intervening Effect: Effect of Independent Variable on Dependent Variable .....	83
5.4.2 Step Two of Testing the Intervening Effect: Estimate Effect of Independent Variable (mergers and acquisitions) on Intervening Variable (risk management) .....	85
5.4.3 Step Three of Testing the Intervening Effect: Estimate Effect of intervening Variable (risk management) on dependent Variable (Financial performance) .....	90
5.5 The joint effect of Mergers and Acquisitions, Risk Management and Institutional Characteristics on Financial Performance of Commercial Banks is not significant. ....	91



5.6 Summary of research findings .....	94
5.6 Discussion of the Hypotheses Tests and Research Findings .....	95
5.6.1 Mergers and acquisitions and financial performance .....	96
5.6.2 Mergers and acquisitions ,firm size and financial performance among commercial banks in Kenya .....	97
5.6.3 Mergers and acquisitions ,risk management and financial performance commercial banks in Kenya .....	98
5.6.4Mergers and acquisitions, risk management, Institutional characteristics, and financial performance .....	99
<b>CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS .....</b>	<b>101</b>
6.1 Introduction .....	101
6.2 Summary .....	102
6.3 Conclusions .....	107
6.4 Contribution of the study .....	109
6.4.1 Contribution to Knowledge .....	109
6.4.2 Contributions to Policy .....	111
6.4.3 Contribution to practice .....	111
6.4.4Contribution to Theory .....	112
6.5 Recommendations for Policy .....	112
6.6Limitations of the Study .....	113
6.7 Suggestions for Further Research .....	114
<b>REFERENCES .....</b>	<b>116</b>
<b>APPENDICES .....</b>	<b>136</b>
Appendix 1: Data collection instrument .....	136
Appendix II: Research data and population .....	137

## LIST OF TABLES

Table 1: Summary of Literature Review and Research Gaps .....	37
Table 2: Distinguishing features of research design .....	45
Table 3: Operationalization and Measurement of Variables .....	50
Table 4: Objectives, Hypothesis, Analytical Model, and Interpretation of Results .....	52
Table 5: Summary of Descriptive Statistics of Study Variables .....	55
Table 6: Independence test result before mergers and acquisitions .....	58
Table 7: Linearity test before mergers and acquisitions .....	59
Table 8: Results of multicollinearity test before mergers and acquisitions .....	60
Table 9: Breusch-pagan test of homogeneity before mergers and acquisitions .....	61
Table 10: Normality test before mergers and acquisitions .....	62
Table 11: Independence test post mergers and acquisitions .....	62
Table 12: Linearity test post mergers and acquisitions .....	63
Table 13: Multicollinearity result post mergers and acquisitions .....	64
Table 14: Breusch-pagan test of homogeneity post mergers and acquisitions .....	65
Table 15: Normality test post mergers and acquisitions .....	65
Table 16: Correlation analysis for mergers and acquisitions .....	67
Table 17: Correlation analysis post mergers and acquisitions .....	70
Table 18 Result for t-test on average financial performance during pre and post mergers and acquisitions .....	75
Table 19 pre-mergers and acquisitions and financial performance .....	76
Table 20: post-mergers and acquisitions and financial performance .....	77
Table 21: Mergers and acquisitions, institutional characteristics, and financial performance .....	80

Table 22: Mergers and acquisitions, institutional characteristics, interaction terms financial performance .....	81
Table 23: Regression result for mergers and acquisitions as the independent variable and financial performance of commercial banks as the dependent variable .....	84
Table 24: Regression result with Liquidity risk management as the dependent variable and operational efficiency as the independent variable .....	86
Table 25: Regression result with Liquidity risk management as the dependent variable and market share as the independent variable .....	87
Table 26: Regression result with credit risk management as the dependent variable and operational efficiency as the independent variable .....	88
Table 27: Regression result with credit risk management as the dependent variable and market share as the independent variable .....	89
Table 28: Summaries of Results of Intervention Assessment Steps One and Two .....	89
Table 29: Regression result with credit risk management as the independent variable and financial performances the dependent variable .....	90
Table 30: premergers and acquisitions, risk management, institutional characteristics, and financial performance .....	92
Table 31: post-mergers and acquisitions, risk management, institutional characteristics, and financial performance .....	93
Table 32: Summary result of hypothesis testing .....	94

## LIST OF FIGURES

Figure 1 Number & Value of M&A Worldwide .....	6
Figure 2:History of mergers and acquisitions in Kenya .....	8
Figure 3: Conceptual Framework .....	42

## ABBREVIATIONS

CBK	:	Central Bank of Kenya
CMA	:	Capital Market Authority
FMCG	:	Fast Consumer Moving Goods
I&M	:	Investments and Mortgages
KCB	:	Kenya Commercial Bank
LM	:	Liquidity Management
M&A	:	Mergers and acquisitions
NBK	:	National Bank of Kenya
NCBA	:	National Commercial Bank of Africa
NIC	:	National Industrial Bank
NIM	:	Net Interest Margin
NPL	:	Non- Performing Loans
NPM	:	Net Profit Margin
OECD	:	Organization for Economic Cooperation and Development
ROA	:	Return on Asset
ROC	:	Return on Capital Employed
ROE	:	Return on Equity
ROS	:	Return on Sales
SBM	:	State Bank of Mauritius

## ABSTRACT

Commercial banks operate in a volatile operational and legal environment that is fraught with competition. Commercial bank regulators have established stringent requirements to protect depositors in the event of a bank failure. Commercial banks are looking for ways to ensure compliance while improving overall performance considering the demanding and competitive operating and legal environments. The research examined the relationship among mergers and acquisitions, risk management, institutional characteristics, and financial performance of commercial banks in Kenya. The specific objectives were to determine the effect of mergers and acquisitions on the financial performance of commercial banks in Kenya, the determination of moderating role of institutional characteristics on the relationship between mergers and acquisitions and financial performance commercial bank, and to determine the mediating role of risk management on the interaction among mergers and acquisitions and financial performance of commercial bank. Synergies theory, resource-based view theory, agency theory, and concentration theory were used to anchor the study. A correlational descriptive research design with cross-sectional data analysis and positivism paradigm was used to accomplish the project's goals. The thirty Kenyan commercial banks that had undergone mergers and acquisitions by 2017 formed the population of the study. The data was gathered from publicly available financial statements, which were split into two; three years before and three years after mergers and acquisitions, with the transaction year been excluded. To determine the mathematical connection among the variables in the study, multiple regressions analysis was used. The results of the study showed that mergers and acquisitions had a significant positive effect the on the financial performance of commercial banks in Kenya. The study also found that the connection between mergers and acquisitions and commercial bank financial performance is moderated by institutional characteristics. The study's findings also revealed that risk management failed to mediate the connection between mergers and acquisitions and commercial bank financial performance. Finally, the combined impact of mergers and acquisitions, risk management, and institutional characteristics on commercial bank financial performance was found to be significant. The findings of the research provide answers to the inconsistencies found in the prior reviewed studies by empirically testing the study variables thus contributing to knowledge by providing new insights based on the variables studied. The research findings contribute to theory by revealing the relationship among the supporting theories. Synergies theory results to increased value of the firm, where agency theory highlights possible misuse of free cash flows and guides on solutions to avoid the agency problem, while resource-based view supports mergers and acquisitions as a means of mopping excess cash flow by combining homogeneous resources for competitiveness. The research findings further contribute to the policy and practice in the sense that the insights will help decision-making processes geared toward targeted outcome. The study results are limited to elements of the study and hence a recommendation of similar study using other attributes in varied context and scope.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the study

The wave of mergers and acquisitions has become increasingly popular in recent years as businesses see them expand and improve their financial performance (Beverly et al., 2019). Mergers and acquisitions enable organizations to achieve economies of scale, tax planning, and acceleration; gain market power, access new technologies and new research and development, increase shareholder wealth, product diversification, and improve financial performance (Amedu, 2004; Gaughan, 1991; Leepsa&Mishra, 2016). Variables such as the firm size involved in the deal affect the success of mergers and acquisitions, though there has never been consensus on the ideal ratio of the merging firms (Ahuja & Katila, 2001; Cohen & Levinthal, 1990). Mergers and acquisitions can influence how a firm manages its risk management, which in turn can influence financial performance. Mergers and acquisitions can affect an organization's risk management, including credit and liquidity risk, and thus its financial performance. Non-performing loans are reduced with proper credit risk management, leading to greater financial performance. Proper liquidity risk management, on the other hand, lets the company pay its bills as they come due, so it does not lose money because of penalties from third parties, get in trouble with regulators, or hurt its brand name (Chui, 2011; Harelimana, 2017).

The anchoring theory in the study was the synergy theory (Ansoff, 1968). The synergy theories explain that firm mergers and acquisitions are a strategy toward growth derived from various synergies such as financial, operating, and managerial efficiency. The idea

also emphasizes that mergers and acquisitions generate value, since  $2+2=5$ . The theory supports mergers and acquisitions, institutional characteristics, and financial performance because when organizations combine, they are theoretically expected to grow and improve their financial performance. The resource-based perspective supported mergers and acquisitions, institutional characteristics, and financial performance (Penrose, 1959). Mergers and acquisitions, risk management, and financial performance are all supported by concentration theories (Eckbo, 1985).

In Kenya, commercial bank mergers and acquisitions date back to 1989, when nine banks merged to form the Consolidated Bank of Kenya. By 2021, the banking sector had witnessed 57 mergers and acquisitions. Commercial bank mergers and acquisitions are distinguished by their dynamic regulatory approach to evolving risk. Mergers and acquisitions became extremely popular following the 2008 financial crisis, which resulted in numerous bank failures. Locally, the Central Bank of Kenya issued prudential guidelines in 2013 that increased the requirements for capital adequacy and liquidity ratios. Commercial banks that were unable to comply with the new laws were compelled to pursue alternate methods, including mergers and acquisitions, to assist them comply with the regulator's declaration (CBK, 2020).

### **1.1.1 Mergers and Acquisitions**

A business transaction in which two or more companies merge into one with a unified management structure or significant influence from a single shareholder group is referred to as a merger or acquisition, according to Baldwin (1998). Mergers and acquisitions result when two entities come together and combine their assets and



liabilities to form a completely new entity (Franke, 2005). Mergers and acquisitions also happen when two entities come together in such a way that one entity acquires a significant interest in the other, including oversight and controls (Machiraju, 2007). Mergers are a corporate strategy where mostly industrial players combine to beat a competitor, while an acquisition may have the objective of eliminating competition or achieving diversification and organic growth (Pazarskis, 2006).

These are the five most common types of mergers in the modern business world. Conglomerate mergers refer to the combination of businesses from vastly different industries. Conglomerate mergers can be either pure or mixed. Mixed conglomerate mergers involve companies searching for product or market extensions; pure conglomerate mergers involve companies with no shared interests. As an example, a major sports shoe producer and a company that makes soft drinks have merged. After the merger, the emerging company has the same level of rivalry in its two markets as did the separate businesses before the merger. Conglomerate mergers include Disney and ABC (Finkelstein, 1997; Cowling, 1980; Green, 1990; Li, 2015).

Mergers between companies in the same industry are considered horizontal. In a horizontal merger, two or more companies that serve the same market or provide similar products or services join forces. Horizontal mergers are more common in industries with few companies due to the increased competitiveness and greater possibilities for synergies and market share gains for merging firms. Horizontal mergers create bigger companies with greater market shares. Since the merged businesses' operations could be comparable, there could be opportunities to consolidate some

processes, such as manufacturing, to save money (Finkelstein, 1997; Cowling, 1980; Green, 1990; Li, 2015).

When two companies sell the same items in separate markets, a market extension merger develops. A market extension merger's primary goal is to give the companies joining forces access to a larger market, which means more customers. An excellent illustration is RBC Centura acquisition in 2000 by Eagle Bancshares Inc. Currently, RBC Centura (RBC Bank), a company with Canadian ownership, is seeking to expand its business in North America. The best course of action was to acquire Eagle Bancshares, Inc., which gave them access to the Atlanta metropolitan area. This gave RBC Centura access to the knowledge and expertise of an extra 283 employees, nearly 90,000 accounts, and assets worth up to \$1.1 billion at the time (Finkelstein, 1997; Cowling, 1980; Green, 1990; Li, 2015).

When two companies that deal in related items and compete in the same market join forces, a product extension merger occurs. The merging businesses can pool their assets and liabilities, gaining access to a broader range of customers and thus more profit. A good illustration of a product extension merger is Broadcom's acquisition of Mobilink Telecom Inc. Broadcom makes hardware for IEEE 802.11b wireless local area networks (LANs) and chips for Bluetooth personal area networks (PANs). The fabrication of products for handsets with the Global System for Mobile Communications technology is a business of Mobilink Telecom Inc.

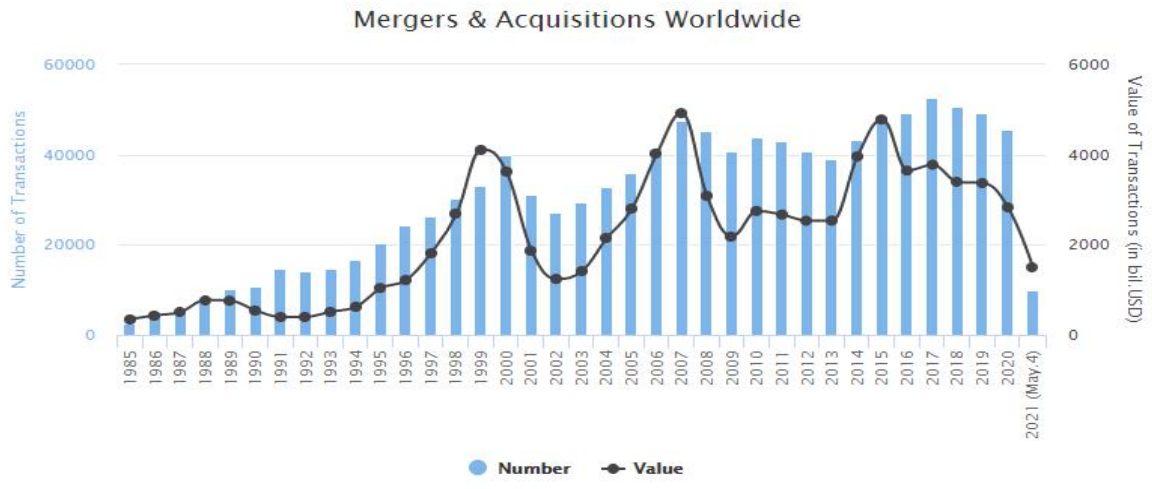
Mergers and acquisitions deals totaling \$ 688 billion were recorded in the second half of 2020, a significant rise from the \$266 billion reported during the same time in 2019.

(PWC, 2021). Mergers and acquisitions rebounded following the COVID-19 epidemic, both in value and volume. According to EY, despite geopolitical and financial obstacles, M&A activity remained resilient in the first half of 2022. For the first half of 2022, there were 2,274 deals worth a total of US\$2.02 trillion, down 27% by value and 18% by volume from the same period in 2021. However, this is up 35% and 13% from the average of the previous M&A cycle. Earnest and Young data indicates that cross-border transactions are evolving to mirror global geopolitical pressures. While the percentage of cross-border deals among closely associated countries has climbed (51% in 2022 compared to an average of 42% over 2015–19), the number of cross-border transactions in H1 has fallen (24% in 2022 vs. an average of 30% over 2015–19). According to the data, although North American investment into Europe climbed from US\$60 billion to US\$149 billion during the same period, investment from China into the US decreased from US\$27 billion at its peak in H1 2016 to US\$1.9 billion.

Since Kenya's independence, several factors have contributed to an increase in mergers and acquisitions among Kenyan banks. Kenya Session Paper No. 2 on Kenya Vision 2030, as well as other legal frameworks, have offer improved banking mergers and acquisitions, with the main objective of creating a strong and resilient financial sector. A stable financial system allows money to flow to the most productive areas, thereby bolstering economic expansion and long-term progress. The number of mergers and acquisitions increased during this period because of widespread policy shifts implemented by governments around the world to address the pervasive financial meltdown, which challenged the worldwide financial system in 2007-2009. Other legislative efforts supported to strengthen sector stability include additional capital

prerequisites, disruptive business models, intense demand, and enlarged transactions. The graph below depicts global mergers and acquisitions through 2021.

**Figure 1 Number & Value of M&A Worldwide**



**Source :Statista 2021**

The changing regulatory landscape, as well as the desire for business expansion and growth, has all had a significant impact on the mergers and acquisitions landscape. The Basel III framework, for example, caused significant reorganization in the Kenyan banking industry. Its structure was established in 2012 with the goal of improving sector safety and stability, and it was phased out until 2019. Banks were required to increase their core capital to at least one billion Kenyan shillings, increase their leverage ratios, enhance the quality and amount of their cash flow benchmarks, and improve their business and financial disclosures as part of this framework. Because of the capital adequacy rules, smaller banks and banks with low capital bases that were

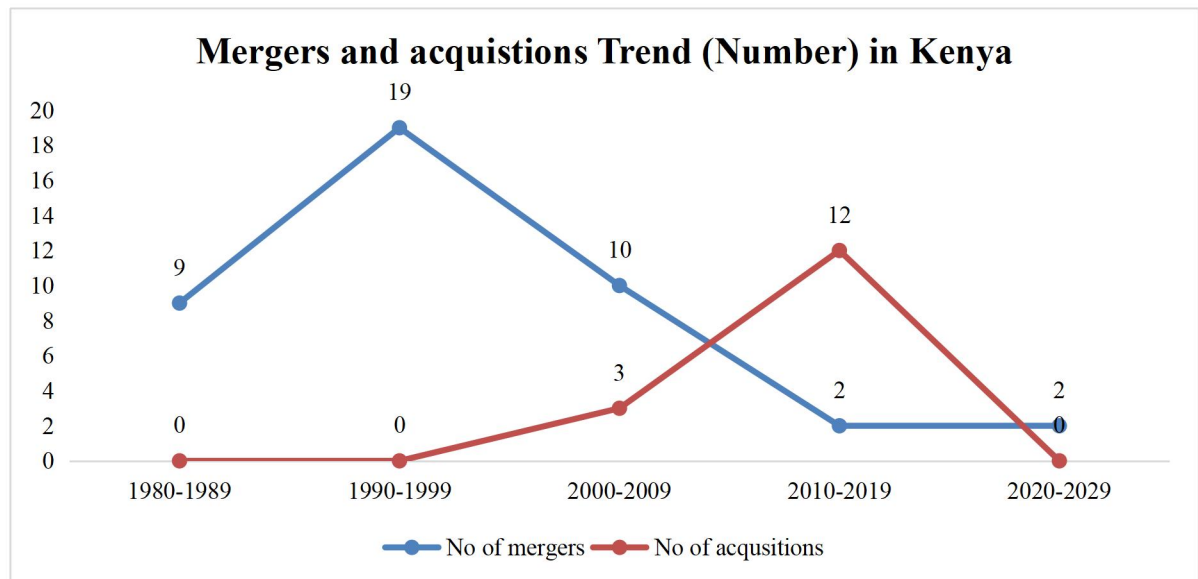
financially unsound were forced to seek alternative survival. Combining with other smaller banks, being bought out by larger banks, improving the efficacy and efficiency of operations, and floating more shares or bonds on the stock exchange are just a few of the techniques. Small banks or troubled banks were thought to prefer mergers and acquisitions, as Basel III suggests, to obtain more capital (Kippra, 2020).

One of the recent mergers in Kenya that accelerated Basel III standards was the purchase of National Bank of Kenya (NBK) by Kenya Commercial Bank (KCB). Before going public in 2018, National Bank was a state bank, but it was forced to close in September 2019 due to significant declines in both operational performance and profitability. Its net investment to uncertainty returns on assets consistently fell from 2008 to 2019, allowing it to be purchased by a partner with greater financial resources. The ailing bank inked a share-swap agreement, which allowed KCB to acquire all NBK and increase its market position from 29.3% to 30.0% by swapping ten NBK shares for one KCB share. Fidelity Bank's inability to meet Basel III's threshold liquidity and capital adequacy rules was a factor in SBM Holdings' decision to purchase it (Kippra, 2020).

The latest wave of mergers and acquisitions has also been influenced by the need for business expansion and network expansion, particularly with an emphasis on technology. Utilizing technology in a bank's operations lowers operating costs, improves operational effectiveness, and expands the bank's current product or service offering. The merger of CBA and NIC Bank is an excellent example of a technologically focused and growth-driven M&A transaction. CBA Bank, a digital

banking market leader, decided to acquire NIC Bank to increase sales revenue, accomplished, and extent for expansion. The transaction, which was completed on a 53:47 share-for-share basis in November 2019, led to the creation of NCBA Bank, for whom the value proposition is anticipated to be tier one. Though both banks have previously done corporate banking, the newly founded company has the possibility to become Kenya's corporate banking market leader (Kippra, 2020). The figure below shows a pictorial of mergers and acquisitions history in Kenya from 1989 to 2020.

**Figure 2:History of mergers and acquisitions in Kenya**



**Source: Central Bank of Kenya (2020)**

The figure above 2 indicates that mergers are more popular than acquisitions among commercial banks in Kenya. This is because mergers are usually carried out on a mutual and symbiotic agreement. It is a corporate restructuring based on a voluntary and mutually agreed schedule. On the other hand, acquisitions are typically carried out to eliminate competition and usually carry some negative elements with them. There is

a significant involvement of legal and boardroom war to block the target's acquisitions and thus it is not popular among commercial banks, which is a vulnerable and regulated sector. During the period from 1989 to 1999, M&A activity spiked for the express purpose of creating synergy via strengthening financial footing. Due to the 2008 global financial crisis, several financial institutions collapsed between 2008 and 2009. When Kenya's minister of finance increased the required minimum capital for banks, we investigated mergers and acquisitions to ensure we met the new regulations and could continue as a going concern. A tightening of compliance with prudential standards fueled the wave from 2010 to 2019. Considering the ever-changing operating and regulatory environment, the government continues to support bank mergers and acquisitions and via Papers Report No. 2 of 2012. Using M&A as a strategy, a bank can better withstand the volatility of the market and the uncertainty of the law (Kyule&Nguli, 2020).

Kenya's concentration on regional and global growth may help boost M&A in the banking industry. New businesses have more opportunities when they expand abroad. These include finding untapped markets; gaining entry to larger markets; strengthening financial footholds; expanding spheres of influence; and reaping tax benefits. The Equity Bank is a great example of a bank that has aggressively pursued regional acquisitions to grow geographically. Uganda, South Sudan, Zambia, Mozambique, Tanzania, and Rwanda are among its regional diversification, with the Banque Commercial du Congo being the most recent acquisition in November 2019. According to analysts, the big purchase has so far had positive results, boosted the company's balance sheet agility, and attracted more banks for mergers and acquisitions. It is

currently one of the most widely used commercial banks, with over 13.7 million customers. To further its goal of expanding its customer base, DTB also purchased Kenya's Habib Bank, whose branches are in the cities of Nairobi, Mombasa, and Malindi. Current DTBK operations can be found in Kenya, Tanzania, Uganda, and Burundi (Kyule&Nguli, 2020).

Mergers and acquisitions have become increasingly common in Kenya's banking sector to diversify portfolios. Through a series of mergers and acquisitions, financial services businesses have entered the traditional banking sector. 79.93 percent. K-Rep Bank, now known as Sidian Bank, was acquired by Centum, a publicly traded investment firm, for 79.93 percent. This deal was made to help the investment business achieve its long-term objective of expanding its commercial banking operations. Mwalimu Sacco, an institutional savings and credit co-operative society, purchased Equatorial Bank, a low-capitalized bank, to expand beyond the Sacco sector and into conventional banking services. When the Sacco made the purchase, it added trade finance, ATM services, and the ability to take deposits from the public (Kyule&Nguli, 2020).

To measure M&A, researchers from diverse fields have used several approaches. According to Kiessling and Harvey (2006), there is no standard methodology for measuring mergers and acquisitions. Empirical criteria like accounting return and stock market-based measurements are popular among financial researchers. Management scholars prefer subjective measurements like personal judgments and qualitative assessments (Schoenberg, 2006; Soni, 2012). Due to ratios' capacity to promote comparability, accounting-based metrics are commonly utilized (Hassan et al., 2017;



Sethi & Krishnakumar, 2012). Studies reviewed have used ratios to measure M&A (Demirigu-Kunt et al., 2003; Judy & Kekara, 2015; Kainika, 2017; Ombaka & Jagongo, 2018; Wango'mbe, 2015). The researcher used operational efficiency ratio and market share ratio to measure mergers and acquisitions. The measures used were deemed appropriate due to their wide application and ease of data collection.

### **1.1.2 Risk Management**

The procedure of recognition, quantification, administering, and keeping track of probable perils that may adversely affect the performance of an organization can be described as risk management (Cumming & Hirtle, 2001). The term risk management can also be used to describe an array of financial and operational procedures designed to mitigate the negative effects of cash flow volatility (Stulz, 1996). Information gathering, analysis, risk quantification, and risk monitoring leading to risk control, risk transfer, risk reduction, risk avoidance, and risk elimination are all components of effective risk management (Cheng et al., 2012). Risk management can also be termed as the fulfillment of different initiatives to control the undesirable aftermath of a loss or uncertainty (Schmit & Roth, 1990).

The banking industry has grown enormously throughout the years. Growth has brought with it a plethora of financial and non-financial risks. Credit risk, liquidity risk, operational risk, market risk, interest rate risk, transaction risk, and legal risk are some of the hazards that commercial banks face. A bank's bottom line could be negatively impacted by Credit risk (Burki & Niazi, 2010). Banks' ignoring risk management primarily contributed to the Asian financial crisis of 1997, where banks were lending

based on client relationships without collateral. The result was that borrowers could not repay the loans, weakening the banking sector (Safari et al., 2016). Any business's success depends on how effectively it manages all its risks. Good financial performance is associated with good risk management, while bad management is associated with a drop in financial performance (Ebenezer & Omar, 2016).

Credit risk has been cited as the most significant risk in banks (Colquitt, 2007). Credit risk relates to failure, inability, or refusal to honor credit service terms and conditions by the borrower. Poor financial performance occurs when the borrower fails to repay the principal and interest. The Central Bank of Kenya mandates that banks comply with IFRS 9 to keep track of their non-performing loans, a key indicator of credit risk. A bad loan ratio is a common metric of financial soundness. Portfolios with default rates lower than 6% are considered strong (Wood, 2017; Muriithi, Waweru, & Muturi, 2016; Folajimi, 2020). Withdrawals from depositors could jeopardize the bank's liquidity. As a direct consequence, the bank will be unable to satisfy its schedules. Management of liquidity risk is essential because it affects a bank's solvency and the way it handles other risks, such as market and credit risks (Cornett & Saunders, 2008). The most utilized metric of liquidity risk is the liquidity ratio (Khan & Ali, 2016; Mardiana et al., 2018; Muriithi & Muigai, 2017; Kumar & Yadav, 2013). To assess credit and liquidity risk, the researcher employed the non-performing loan ratio and the liquidity ratio. The measures were deemed appropriate due to their wide application and ease of data collection and analysis.

### **1.1.3 Institutional Characteristics**

Institutional characteristics are the distinctive traits that make up various organizations, including their age, size, and business ownership. Institutional regulations and policies can affect quality (Ferreira et al., 2008). Institutional qualities are internal aspects that influence corporate operations (Zou & Stan 1998). Institutional features are microeconomic elements that influence the performance of a management-controlled firm (Mdoe, 2017).

Types of institutional characteristics includes institutional characteristics (firm size, leverage, and ownership composition); institutional characteristics (firm size, leverage, and ownership composition); and institutional characteristics (firm size, leverage, and ownership composition). The fourth group includes market institutional characteristics such as sector specialties and corporate social responsibility, as well as profitability and liquidity (Rahman &Widyasari, 2008). These characteristics can affect a company's ability to stay in business as well as its overall financial well-being (Kaguri, 2013). In the banking industry, operational efficiency, diversity, cost of capital, and liquidity are critical because they determine the institution's stability (Kioko, 2013). In a corporation, board size, ownership structure, and board makeup are all important factors because they influence corporate governance, which drives financial performance.

Additional researchers have employed other institutional characteristics as control variables, although the most utilized include business size, profitability, financial advantage, and cash flows. Variables are widely utilized because information about them is easily accessible, and they are simple to quantify (Archambeault, 2002).

Previous authors used the natural logarithm of total assets to calculate firm size (Fodio, Ibikunle, & Oba, 2013; Rahman & Widyasari, 2008). Personnel count and revenue generated are two other indicators of firm size (Filipovic, 2012; Ahuja & Katila, 2001). According to Kaen and Baumann (2003), the number of employees is a better predictor of firm size than turnover and assets. This is because smaller businesses can have a high turnover and even more assets while employing fewer people. Firm size has been used as a moderating variable because of its wide application by other researchers (Ali M, 2018; Corvino A., et al 2019; Untirta A., et al, 2020;). The firm size data was also readily available from secondary sources. The study used the logarithm of total assets to measure firm size.

#### **1.1.4 Financial Performance**

Yahaya and Lamidi (2015) stated that financial performance explains the proficiency of the organization. Financial performance is how well a company accomplishes its goals in terms of qualitative and quantitative measures, including revenue growth, profitability, return on assets, customer satisfaction, compliance, and staff satisfaction (Majari et al., 2012). Management's skill in turning available resources into cash is another factor that affects financial performance (Baba & Nasieku, 2016). Financial performance also refers to the overall organizational position in assets, liabilities, revenues, equity, and expenses (Rutagi, 1977). Financial performance shows how well an organization can utilize its resources in generating revenue from its active business assets and its overall position throughout the time (Baba and Nasieku's 2016).

Financial performance is important to an organization as it reflects how effective the management has been in utilizing the assets to generate revenue (Nzuve, 2016). It is

also very critical to the going concern of an entity as it determines its prospects with lenders, suppliers' customers, and the regulators. Poor financial performance will result in low liquidity, which makes the entity unable to fulfil its obligations as well as pay statutory obligations. Financial performance also indicates an entity's solvency, and a lack of solvency may discourage investors and lenders from extending credit. A poorly performing entity is unable to respond to a customer's request, which may result in the collapse of the entity (Quach, 2005).

Financial performance can be evaluated using either accounting statistical analysis or quantifiable non-financial data. To collect financial quantitative information, primary financial statements such as income statements and statements of financial position are typically used. Non-financial qualitative data such as customer satisfaction, employee satisfaction, and compliance levels are collected from primary sources using appropriate data collection technologies (Kori, Muathe, & Maina, 2020).

Return on assets (ROA) is a measure of how efficiently a company uses the assets it owns to generate profits. Managers, analysts, and investors use ROA to evaluate a company's financial health. Return on assets compares the value of a business's assets with the profits it produces over a set period. Return on assets is a tool used by managers and financial analysts to determine how effectively a company is using its resources to make a profit. When a firm's ROA rises over time, it indicates that the company is squeezing more profits out of each dollar it owns in assets. Conversely, a declining ROA suggests a company has made bad investments, is spending too much money, and may be headed for trouble (Forbes Advisors, 2021). Return on Asset (ROA) was one of the financial performance indicators used in the

studies examined in this study to measure management effectiveness in leveraging the organization's assets to generate revenue and wealth for the business (Boloupremo & Ogege, 2019; Ogada et al., 2016).

### **1.1.5 Commercial Banks in Kenya**

Mergers and acquisitions of commercial banks in Kenya date back to 1989, when nine commercial banks merged to form a consolidated bank. From 1990 to 1999, there were 20 bank mergers and acquisitions, 16 from 2000 to 2010, and 9 from 2011 to 2020. Imperial Bank, Chase Bank, and Charter House Bank are the only commercial banks in Kenya that are currently governed by statute (CBK, 2019). Changes in the business environment have prompted Kenyan banks to merge and purchase one another (CBK, 2020).

Commercial banks in Kenya have registered tremendous growth, with only five hundred and twelve bank branch networks spread across the country in 1995 to the current one thousand five hundred and two branches in the year 2020. Employment in the banking sector has also been on the rise, with 14,895 staff in 1995 going up to 31,605 staff in the year 2020. The growth in the banking assets and income has also been witnessed from a total of Kes 322,672 million to Kes 5,405.8 billion worth of assets in 2020 and an income of Kes 64,728 million in 1985 to a net profit of Kes 159.1 billion in the year 2020. Other dynamism witnessed in the banking sector included the growth of automated teller machines from 75 to the current 2,412 in 2020 (CBK, 1995; CBK, 2020).

The Central Bank of Kenya is responsible for licensing, issuing guidelines and directives, formulating, implementing, and enforcing all monetary policies, with its top umbrella being the Ministry of Finance and Treasury (Kenya constitution, 2010). The Kenya Bankers' Association (KBA) was formed by Kenya's commercial banks to communicate issues of mutual concern to the regulator. The Kenyan Central Bank developed prudential guidelines for capital adequacy, minimum capital requirements, and interest rate management. Those banks that fell short of the requirements were required to join forces (Cyttonn, 2020).

Commercial banks in Kenya's financial performance are at two extremes; where some banks have been posting increasing profits, such as Equity Bank, KCB, and Co-operative Bank, while other banks, especially the third-tier banks, have been posting declining profits, such as Jamii Bora bank and Bank of Africa. Due to poor financial performance, some banks, including Dubai Bank, Chase Bank, and Imperial Bank, have been placed under mandatory reporting administration (CBK, 2019). The difference in financial performance can be attributed to bank-specific characteristics and how well those elements are managed by the bank (Muriuki et al., 2019). Commercial banks' financial health has also been connected to institutional characteristics such as the bank's size, age, and ownership (Nyabaga& Wepukhulu, 2020).

## **1.2 Research Problem**

Commercial banks operate in an ever-evolving operating and legal environment. The risks facing commercial banks are becoming more sophisticated and complex daily with the emergency of technology and digital lending platforms accompanied by an increase

in online fraudsters and hackers. There are increasing corporate governance issues, which are putting customer's deposits at risk. As such, the regulator has instituted a stringent operating and legal environment with which commercial banks are bound to comply. The financial crisis of 2008, when there was a mass of bank failures, opened the door for regulators to tighten the regulations to avoid such an occurrence. In Kenya, the Central Bank comes up with prudential guidelines, which all commercial banks are bound to comply. Commercial banks are further bound to follow Basel's committee guidelines as well as International Financial Reporting Standards, (specifically IFRS 9 Financial Instruments) in consideration of impairments of financial assets and liabilities.

The guidelines, pronouncements, and frameworks, which the banks are bound by makes some commercial bank unable to comply and therefore look M&A has become the most solemn way to enhance compliance and competitiveness (CBK, 2020; Nguli & Kyule, 2020; Kumar& Bansal, 2008; Kathali, 2014). M&A facilitate the creation of entities with a large capital base and a sufficient liquidity ratio. It also enables entities to find a soft landing for growth and diversification, tax savings, market power domination, and overall improved financial performance. The synergies brought about by mergers and acquisitions also facilitate proper risk management due to the combination of homogenous resources (Chui, 2011; Ciobanu et al., 2014; Filipovic, 2012; Heller, 2013).

Mergers and acquisitions can be traced back to 1989, when nine banks merged to form the Kenya Consolidated Bank. Since then, the trend has gained traction with 57 commercials undertaking M&A as of December 2021. The trend observed reveals that most of the entities acquired have been performing in a dismal manner while the



entities that acquired them have been performing extremely well. In Kenya, recent M&A include the National Bank of Kenya and Kenya Commercial Bank of Kenya, the State Bank of Mauritius (SBM) and the Chase Bank of Kenya, Equity bank and Spire bank, and Access bank and Transnational bank. A performing bank and a non-performing bank are involved in the mergers and acquisitions. Other mergers, such as that of NIC and CBA to form NCBA, involved two performing banks seeking synergies. Some commercial banks are under statutory management, which included Dubai Bank and Imperial Bank, due to non-compliance with the regulator's guidelines, which also pointed toward corporate governance problems (Asokoinsight, 2020; Catton, 2019).

The wave of bank mergers and acquisitions has attracted academicians and researchers in equal measures. The direct relationship has been widely studied on M&A and financial performance as evidenced by the reviewed studies whose findings and conclusions are varied. The varied findings and conclusions could point towards varied methodologies, population characteristics, context of the study, and assumptions made. A study on the direct connection for both M&A that discovered and concluded that M&A resulted in improved financial performance is an example (Ibeji, 2015; Kathali, 2018; Korir, 2006; Ogada et al., 2016; Ombaka & Jagongo, 2018; Mwanza, 2016). Further reviewed studies on direct relationships whose findings and conclusions indicated that M&A do not have a direct impact on the financial performance of commercial banks included those of (Chesang, 2002; David, 2011; Ochieng, 2006; Marembo (2012), Muya, 2006; and Ndura, 2010). Harney (2011) did more research that was contradictory and found no link between M&A activity and how well commercial banks did financially.

Local studies have looked at the direct connection between M&A and financial performance. The investigations did not consider any factors that could strengthen or weaken the correlation between the predictor and outcome variables. The investigation also did not consider intervening variables. The highlighted studies reviewed in the local context included those of (Juma et al., 2012; Kathali, 2018; Ombaka&Jagongo, 2018; and Wango'mbe, 2015). International studies reviewed, which also followed a direct relationship, included those of (Asli et al., 2014; Nga &Kamolrat, 2007). It's against this backdrop, that this study was necessitated to test emphatically the effect of intervening and moderating among the independent and dependent variables in a local context.

The studies reviewed have also revealed varied methodological approaches and population characteristics. Some of the studies reviewed revealed that the researchers used small samples, which could result in an increase in margins of error and hence unreliable results (Njeru & Gathuku, 2015; Kathali, 2014; Waqas, 2019). This study will endeavor to study the aggregate population for accurate and reliable results. Other studies reviewed have used a span of one year before and after M&A, which is a short period for the effect of the event to be felt (Putri V, 2010). This study will use an average of three years before and after M&A, with the deal year being excluded. Other studies reviewed have used primary qualitative data, which is expensive, time-consuming, and sometimes biased due to human emotion variations (Njoroge, 2007;Kimotho,2018). This study will use secondary quantitative data, which is more reliable and is available to the public (Muriithi et al., 2016; Yimka et al., 2015; Muriithi & Waweru, 2017; Orangi et al., 2019).

The reviewed studies present three main research gaps. First is the conceptual gap, where the reviewed studies yielded different findings and conclusions, driving toward insufficient knowledge of the in the subject matter. Some studies revealed that M&A and acquisitions result in increased financial performance while others indicated that the relationship is mutual. Still others indicated that M&A have no impact on the financial performance of commercial banks. The second is the methodological gap, where the reviewed studies present variations in sample size, duration of data collection, and data collection techniques. The third is the contextual gap, where the reviewed studies in developing and developed economies have focused on direct associations amongst the predictor and the outcome variables while ignoring the role of moderating and intervening variables. The study intended to fill the gaps identified and empirically test the relationship among M&A, risk management, institutional characteristics, and financial performance among commercial banks in Kenya.

### **1.3 Research Objectives**

The study endeavored to establish the relationships amongst M&A, risk management, and institutional characteristics on the financial performance among commercial banks in Kenya. The specific objectives of the study were-

- i. To establish the effect of M&A on financial performance among commercial banks in Kenya
- ii. To determine the effect of institutional characteristics on the relationship between M&A and financial performance among commercial banks in Kenya
- iii. To investigate the effect of risk management on the relationship between M&A and financial performance among commercial banks in Kenya

- iv. To examine the joint effect of M&A, risk management and institutional characteristics on financial performance among commercial banks in Kenya

#### **1.4 Value of the Study**

The study results and conclusions have a significant impact on financial theories, particularly those that support or oppose M&A and financial performance requirements. The findings serve as a foundation for decision-making by connecting theories to practice. The study's findings contribute to policy-making practices, as they inform the regulator in their design of policies, especially those touching on M&A. The regulator can either formulate policies that encourage M&A among commercial banks or discourage them, depending on the objectives. The findings also shed light on other elements that affect M&A financial performance, which may be of concern to regulators.

The study's findings advise decision-makers about whether M&A are beneficial to the firm's vision. The conclusions of the study would also advise decision-makers about other aspects to consider, which could either enhance or diminish the relationship between M&A and financial success, or even mediate it. The research assists academia by expanding current knowledge of M&A. The study's findings enable future academics to go further both within and outside of the context.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

There are three sections in this chapter. The first section offers theoretical grounding and supporting assumptions for the relationship between research variables. The second section discusses empirical studies on the study variable. The third section summarizes the outcomes of empirical studies as well as research gaps. The chapter ends with a discussion of the conceptual model and conceptual hypothesis.

### **2.2 Theoretical Foundation**

The theories that underpin the association among the variables in the study are addressed in this section. The synergy theory (Ansoff 1968), the resource-based theory (Penrose 1959), the concentration theories (Eckbo 1985), and the agency theory were all explored (Jensen & Mecklin 1976). The anchoring theory of the study was established by using synergy theories to explain the reason for mergers and acquisitions. The study's supporting hypotheses were resource-based theory, concentration theory, and agency theory, which supported M&A, Risk Management, Institutional Characteristics and Financial Performance of Commercial Banks.

### 2.2.1 Synergies Theory

When two businesses work together, it's like getting a free bonus of value, because  $2+2$  always equals 5. When two companies join forces through a merger or acquisition, the combined entity is expected to perform better than either one would individually. If we extrapolate this analogy, we find that the combined firm has a higher net present value (NPV) than the sum of its individual components (Hasen, 2015).

The concept of synergy holds that the aggregate is superior to segments. Synergies are the results of the merger of two firms in which the combined firms outperform the isolated firm (Gaughan, 2010; Sherman, 2010). When two businesses merge in such a way that  $2+2=5$ , value addition occurs as a byproduct. When it comes to mergers and acquisitions, it shows that when two companies combine, their performance improves. This example implies that the combined firm earns more profit than an isolated firm, i.e.,  $NPV \text{ firm } XY > NPV X + NPV Y$ . (Hasen, 2015).

Ansoff (1968), who argued that synergies are a major component of an organization's product-market strategy, originally promoted the theory. Hiroyuki (1991), who argues that real synergy occurs when each entity utilizes its intangible assets efficiently, expounded the theory. Barney (1991) further developed the theory by incorporating tangible capital, human capital, and organizational capital, which can be used to cause synergistic effects through mergers and acquisitions, as the resources are unique and cannot be imitated. Weston (1998) added managerial synergies, operating synergies, financial synergies, and undervaluation effects to the theory to explain how the total

value of a company goes up when it is taken over, restructured, or has better corporate governance.

This theory has been criticized on the basis that it is not possible to address the synergies that will be derived in the future during the due diligence stage if the intervening factors are not well managed post-consolidation (Rappaport, 1998). Damodaran (2005) argues that it is not possible to measure synergies due to the numerous assumptions made during the valuation stage. Consolidation pegged to the synergistic relationship requires a well thought out post-consolidation implementation as there is no redress for mergers and acquisitions and premiums are paid upfront (Campbell &Goold, 1998). McGee & Channon (2014) also analyzed the theory based on lack of strategic fit, especially if it involves an unrelated industry, i.e., some aspects like those that managerial synergies may not be realized due to different managerial expertise.

Financial, operational, and managerial synergy are the 3 types of synergy. When a company grows and risk diversifies, financial synergies emerge from lower capital expenses. Operational synergies improve the firm's operations by achieving economies of scale through the distribution of constant expenses and cost efficiencies because of the large size of transactions; economies of scope are achieved using shared resources; and market power is achieved through price leadership. Managerial efficiencies are obtained through the addition of new talent by both firms' management (Hitchner, 2003). The synergy theory underpins this study, which supports the link between

mergers and acquisitions and financial performance. According to the theory, mergers and acquisitions result in operational, managerial, and financial efficiencies.

### **2.2.2 Resource based View Theory**

Penrose (1959) advanced the concept by arguing that a company's uniqueness arises from the diversity, rather than the uniformity, of its productive resources. The resource-based perspective focuses on the diversity of an organization's assets. Effective mergers, acquisition, and diversification can contribute to an organization's internal and external growth, according to Penrose (1959). This means that firms need to take stock of their capabilities and shortcomings before they can devise a plan to beat the competition while making effective use of their resources (Wernerfelt, 1984).

The theory has been criticized on the basis that it does not explain how resources are measured, most of which are intangible (Godfrey and Hill, 1995). The theory's assumption of competitive advantage also posed a methodological challenge in terms of time and cost in measuring, as it may require a longitudinal analysis, which may take time and be costlier for academic researchers (Barney et al., 1991). RBV theory focuses on internal capabilities while ignoring external factors (Priem & Butler, 2001).

According to RBV, the unique and valuable aspects of its talents and resources (Barney, 1991) determine a firm's competitive edge and its level of performance. Companies may develop and implement their strategy considering their current capabilities and resources using RBV (Sheehan & Foss, 2007). The model's recognition of a company's ability to enhance its market share by sharing distribution channels, its financial capacity through sharing customer service orientation, and its operational efficiency through sharing manufacturing and raw materials, makes it crucial to this research.



### **2.2.3 Agency Theory**

The hypothesis describes the interaction between two parties whose goals are incompatible, as originally proposed by Ross (1973). Employer-employee relationships, manager-shareholder relationships, auditor-shareholder relationships, and so on. Jensen and Meckling (1976), who believe that the division of ownership in management creates a problem for the agency because managers work for a company in accordance with their own interests rather than those of shareholders, expanded on this viewpoint.

The theory has been critiqued for bias in its view that agency problems can only be caused by managers, whereas the principal can also be the cause. The principal normally has exclusive power in decision-making and is capable of exploiting, manipulating, and bulldozing agents to act whose outcome may be detrimental to the organization (Perrow, 1986). Principal issues have been observed in Kenyan banking sectors, where the owners of imperial banks have been accused of advancing themselves large unsecured loans, resulting in the bank's failure (Gathaiya, 2017).

The agency hypothesis is widely applied in a variety of fields. Mergers and acquisitions are one of them, and it is argued that managers typically oppose consolidation because they fear losing their employment (Eisenhardt, 1989; Shapiro, 2005; Heracleous et al., 2010). Consolidation, as defined by Carpenter et al. (2009), is a method of improving organizational efficiency by penalizing incompetent managers. A consolidation plan can also be utilized to mop up excess cash flow that the manager may have at his or her disposal and employ it in an opportune manner. The reduction of cash flow calms the

manager's conduct, improving their efficiencies (Berger et al., 2011; Aggarwal et al., 2010).

#### **2.2.4 Concentration Theory**

Eckbo (1985) developed this idea by proposing that consolidation creates massive organizations that generate economies of scale and operational efficiency, which translates into higher financial performance. According to Allen and Gale, financial crises are more common in industries with many small banks (2003). The theory is pertinent in this research because it recognizes that firms consolidate to increase one 's size, which is associated with economies of scale and profitability. Authorities may encourage concentration for supervisory purposes, according to the concept, because small-to-large firms are well positioned for oversight by a small, comprehensive organization (Demirgu C-Kunt & Levine, 2004).

The critique of the idea behind concentration argues that it may result in the creation of monopolies with undesirable characteristics such as operational inefficiency, possible diseconomies of scale, and generally higher prices to consumers (Pettinger, 2020). Hakenes et al. (2014) argue that small banks are well positioned to spur economic growth as opposed to large regional banks. They also hold the view that small banks are efficient in serving low-credit consumers, hence facilitating financial deepening.

### **2.3 Review of Empirical Literature**

The section presents a discussion on the review, critique, and identification of the research gap from empirical studies conducted on the association between mergers and acquisition, risk management, institutional characteristics, and financial performance.

### **2.3.1 Mergers and Acquisitions and Financial Performance**

Umoren and Olokoyo (2007) investigated the financial results of Nigerian commercial banks following major mergers and acquisitions. Thirteen bank mergers and acquisitions were studied, with financial performance measured using return on equity 2 years beforehand and 2 years afterwards merger and acquisition (ROE). The results of the study showed an incremental post-merger financial performance as determined by the change in ROE following mergers and acquisitions. The study was conducted in a different setting and with a smaller sample size. The research will be conducted in a more local setting with a larger sample size. ROA was used in the study to indicate earning potential.

Haruna et al. (2017) investigated the impact of mergers and acquisitions on firm financial results in Ghana. The combined bank produced better financial results, according to the study's findings. When compared to revenue and assets, Net Profit Margin (NPM) and Return on Capital Employed (ROCE) increased slightly, which could be attributed to consolidation-related expenses. Because no moderating or intervening variables were included in the study, the findings may not be generalizable. Furthermore, the study only used two banks, which may not be enough for regression analysis and representation. The goal of this study is to investigate how changing and intervening variables affect the relationship between consolidation and financial performance. Because the population was small, the census method was used rather than sampling.

Rashid and Naeem (2017) investigated the implications of business consolidation in Pakistan. The sample consisted of 25 mergers that occurred between 1995 and 2012.

Profitability and liquidity ratios were computed. Consolidation has no significant impact on a firm's financial success, according to the study's findings. This contradicts the findings of Awdeh and EL-Moussaw (2011), who discovered that consolidation increases profitability slightly; Inoti et al. (2014), who discovered that consolidation has no effect on financial performance; and Kimotho (2018), who discovered that consolidation improves financial performance.

Fatima and Shehzad (2014) explored the impact of mergers and acquisitions on Pakistani banks' financial results. The study's sample was drawn from ten banks that merged between 2007 and 2010. They investigated the effects of mergers. The study lasted three years before the merger and three years afterward. The financial ratios used to assess financial success were return on assets, return on equity, debt to equity ratio, deposit to equity ratio, and earnings per share. The research discovered that, except for ROE, which had a non-normal distribution, all ratios had a normal distribution. Mergers, according to the study's findings, do not improve financial performance.

Muhammad, Waqas, and Migliori (2019) explored the impact of mergers and acquisitions on Pakistani banks' financial performance. Data for the investigation were gathered for the banks that combined between 2004 and 2015. From a population of 30 banks, 15 were chosen using a purposive sampling method. The impact of mergers and acquisitions on the bank's financial performance was empirically assessed using panel data. Financial performance metrics included the advance to deposit ratio, cash to asset ratio, current ratio, return on assets and return on equity, net profit margin, and gross profit margin. According to the investigation, the merger increased liquidity, investment, and profitability ratios while decreasing solvency, indicating a negative relationship.

### **2.3.2 Mergers and Acquisitions, Risk Management, and Financial Performance**

Mardiana et al. (2018) investigated the interaction between risk management and financial success in Indonesia. Credit risk management, as measured by non-performing loans, had no discernible bearing on commercial banks' financial results, based on the findings of the study. This study contradicts (Kartikasary et al., 2019) findings, which found that non-performing loans have a significant impact on commercial bank financial performance among Indonesian stock exchange-listed commercial banks. The research was carried out in a Western economy, and it must be replicated in a Kenyan setting. Because a single metric may not capture the entire picture, more liquidity and operational risk management will be implemented.

Olalekan and colleagues (2018) investigated the link between risk management and financial performance in Nigerian commercial banks. Liquidity risk, operational risk, and credit risk were all risk management proxies. Credit risk and operational risk management, according to the study's findings, had a negative significant impact on financial performance, while liquidity management had a negligible impact. Olagunju et al. (2012), on the other hand, discovered that liquidity risk had a positive and significant impact on the financial performance of Nigerian commercial banks. According to Matayo and Muturi (2018), operational risk has a significant positive impact on financial performance in an FMCG environment.

Adabenege et al. (2015) investigated the relationship between risk management and organizational performance in Nigeria. From 2005 to 2014, the investigation was ongoing. The sample size was fifteen Nigerian Stock Exchange-listed banks. The study collected 150 observations using secondary data from financial statements. The link

was discovered using panel data. Organizational success was measured using ROA and ROE, while risk was measured using standard deviation. According to the study's findings, risk management has a significant positive impact on financial performance. The findings are consistent with (Kolapo et al., 2012; Adeusi et al., 2013; Uwalomwa et al., 2015; Gizaw et al., 2015), but not with (Kolapo et al., 2012). (Kolapo et al., 2012). Margaritis and Psillaki (2010); Cai and Zhang (2011); and Vithessonthi and Tongurai (2014)

### **2.3.3 Mergers and Acquisitions, Institutional Characteristics, and Financial Performance**

Mokaya (2014) used bank size as a proxy to investigate the effect of institutional determinants on lending rates in Kenyan commercial banks. The population of the study included 39 commercial banks, whose data was gathered and analyzed between 2016 and 2015. The size of Kenyan commercial banks had a major impact on lending rates. The study's findings also diverged from those of Singh and Mogla (2010), who discovered that the size of a company had a negative influence on its financial performance after consolidation. The disparities in results could be attributed to a contextual difference in that the former looked at the impact on lending rates while the latter looked at financial results after mergers and acquisitions.

Mwangi (2014) investigated the effect of institutional factors proxied by firm size and age on firm performance. The population of the study included 114 mutual funds licensed by capital market regulators, and secondary and primary quantitative data were gathered between 2009 and 2013. The study's results demonstrate that the age and size

of the firm had no consequence on the mutual fund's financial success. In this study, firm characteristics were used as a moderating variable. The findings contradict those of Kithinji (2017), who illustrated that the size of a bank enhances financial results when used as a moderating variable in the connection between bank restructuring and financial success.

Kioko (2010) investigated the effect of firm size on financial results in Kenyan commercial banks. The sample size of the study was 43 Kenyan commercial banks. Data for the study was collected between 1998 and 2012. The firm's size was determined using net assets, personnel count, total loans, and total deposits. According to the study's findings, there is no significant link between employee count and financial results. The study also discovered a significant positive relationship, as determined by ROA, between net asset total deposits and total loans. The results of this research contradict those of Hossai and Saif (2019), who unearthed that the number of employees had a significant effect on the financial results of Bangladeshi banks.

#### **2.3.4 Mergers and Acquisitions, Risk Management, Institutional Characteristics, and Financial Performance**

Suehiro (2002) investigated how bank restructuring and risk management affected Thailand's financial results. The central issue was whether consolidation enhanced the NPL ratio. Based on the report's results, the NPL ratio got better after restructuring. The study also investigated how restructuring affects asset quality, and it was unearthed that asset quality enhances after restructuring. Dziobek and Pazarbsioglu (1998) discovered that restructuring banks with a high volume of non-performing loans results in low earnings due to NPL provisioning, which contradicts the findings of this investigation.

Extensive empirical assessment of the variables in a local and consolidation setting is required to corroborate the differing views.

Sulub (2014) investigated the influence of institutional factors on the financial results of Sudanese commercial banks based on bank size. The latest results revealed that bank size is linked to financial results in a positive way, whereas bank age is related to financial performance in a negative way. But besides being performed in a Spanish industrial setting, the result contradicts those of Coad et al. (2010), who unearthed that a firm's financial results improve with age. Salman and Darush (2012) unearthed a negative connection between company size and age and financial performance in Swedish micro enterprises.

## **2.4 Summary of Literature Review and Research Gaps**

An examination of empirical studies uncovers multiple gaps in research. The conceptual gap that occurs when the evaluated studies on the interaction between both the study variables generated contradictory results was identified. The contradiction could be because of variations in sample size, methodology, and context of the study. This study addresses this by empirically testing the study variables and comparing the results with the theoretical expectations.

The contextual gap where no local or international study was found to address all the four variables in one study was also identified. Because of differences in political, legal, social, environmental, and technological aspects, the study results may differ; thus, the study must be conducted in a developing, local, and banking context. The gap will be



addressed by empirically testing the relationship of the entire four variables in one study by incorporating moderating and intervening variables.

The methodological gap: most of the studies reviewed used ROE and ROCE to measure financial performance was also identified. The study uses ROA, which indicates the earning potential. The reviewed studies have also used a small sample size, which ranges between 2 and 15, while this study uses a sample size of 30. A smaller sample size may not be representative, especially in banks.

A summary of the reviewed literature on mergers and acquisition, risk management, institutional characteristics, and financial performance of commercial banks is presented in Table 1. The tables summarize the gaps identified in each of the studies reviewed and how the studies reviewed have resolved the gaps.

Synergy theory has been criticized on the basis that it is not possible to address the synergies that will be derived in the future during the due diligence stage if the intervening factors are not well managed post-consolidation (Rappaport, 1998). Damodaran (2005) argues that it is not possible to measure synergies due to the numerous assumptions made during the valuation stage. Consolidation pegged to the synergistic relationship requires a well thought out post-consolidation implementation as there is no redress for mergers and acquisitions and premiums are paid upfront (Campbell &Goold, 1998).

Resource based view theory has been criticized on the basis that it does not explain how resources are measured, most of which are intangible (Godfrey and Hill, 1995). The theory's assumption of competitive advantage also posed a methodological challenge in terms of time and cost in measuring, as it may require a longitudinal analysis, which may

take time and be costlier for academic researchers (Barney et al., 1991). Agency theory has been critiqued for bias in its view that agency problems can only be caused by managers, while else the principal can also be the cause. The critique of the idea behind concentration argues that it may result in the creation of monopolies with undesirable characteristics such as operational inefficiency, possible diseconomies of scale, and generally higher prices to consumers (Pettinger, 2020).

**Table 1: Summary of Literature Review and Research Gaps**

<b>Author(s)</b>	<b>Country</b>	<b>Focus of the Study</b>	<b>Main Findings</b>	<b>Limitations (Research Gaps)</b>	<b>How Gaps were Addressed in the Current Study</b>
Suehiro (2002)	Thailand	Bank's restructuring and risk management.	There was improvement in NPL after the bank's restructuring.	-Only one aspect of risk management was analyzed. -The moderating role of institutional characteristics was not considered.	-Three aspects of risk management were analyzed. -The moderating effect of institutional characteristics was being considered.
Worldbank (2003)	U.S.A	Bank Concentration and Financial performance	Acquisitions and mergers have a favorable impact on financial success.	-The study was conducted in a developed context. -Moderating and intervening variables were not tested.	-This study was done in a local developing context. -Moderating and intervening effect of institutional characteristics and risk management was being considered.
Umoren and Olokoyo, 2007	Nigeria	Mergers and acquisitions and their effects on financial performance	Mergers and acquisitions lead to improvement in commercial bank financial performance.	-Moderating and intervening variables were not tested. -Financial performance was measured based on Earnings.	-Moderating and intervening effect of regulatory policies and institutional characteristics considered. -The study used ROE to measure financial performance while this study used ROA with a larger sample size.
Kioko (2010)	Kenya	Firm size and financial performance	-Firm size do not affect financial performance	-Inconsistent results	-Empirical testing of firm effect on financial performance
Fatima and Shehzad (2014)	Pakistani	Mergers and financial performance of banks in Pakistani	Mergers and acquisition do not lead to improvement in commercial bank financial performance	-The study was conducted in a developed context. - Moderating and intervening variables were not tested	This study was done in a local developing context. -Moderating and intervening effect of institutional characteristics and risk management was being considered.
Sulub (2014)	Sudan	Firm charectersitics and operanization	Firm charectersitics and operanization	-Intervention effect was not investigated	-The intervention effect of risk management will be considered.

		performance	performance		-Three firm characteristics as being considered.
Mokaya (2014)	Kenya	Bank characteristics, micro economic variable and lending rates.	Bank characteristics and financial performance	-No control for intervening variable	-The intervention effect of risk management will be considered. Three firm characteristics was considered.
Mwangi (2014)	Kenya	Firm characteristics and mutual fund financial performance	Size of the firm and Age do not influence the mutual fund financial performance.	-The study results were inconsistent -Context of the study was in mutual funds -No control for intervening variables	-Empirically test the relationship in a banking context. -Intervening effect of institutional characteristics was considered.
Adabenege et al (2015)	Nigeria	Risk management and financial performance	Risk management has is a significant predictor of financial performance	-Inconsistent result	-Empirically tested the variables to address the inconsistency
Haruna, John, and Kennedy (2017)	Ghana	Mergers, acquisition, and financial performance	-mergers and acquisition have a positive impact on financial performance.	-Intervening and moderating variables were not tested	-Moderating and intervening variables was empirically tested
Rashid and Naeem(2017)	Pakistani	Effect of corporate consolidation on the financial performance.	Mergers and acquisition are not a significant predictor of financial performance	-No testing of intervention and moderating effect -The study was conducted in a developed economy.	-Moderating and intervening variables was empirically tested -Intervention and moderating effect were considered. -Local and banking context was analyzed.
Olalekan, Mustapha and Iro (2018)	Nigeria	Risk management and financial performance	Risk management have a positive impact on financial performance	-No control for moderating effect	-Moderating effect of institutional characteristics was considered.

Mardiana , Endah and Mirza (2018)	Indonesia	Factors influencing bank financial performance.	Non-performing loan has no significant influence on financial performance of commercial banks.	-No control for intervention and moderating effect -The context of the study was in a developed economy.	-Moderating and intervening variables were tested
Muhammad, Waqas and Migliori (2019)	Pakistani	Impact of M&A on bank financial performance.	-Merger and acquisition results lead to better financial performance. -Mergers and acquisition resulted to declining solvency of the bank.	-The context of the study was in a developed country. -Sample used was small.	-A larger sample size was used. -Moderating and intervening variables were tested.

## **2.5 The Conceptual Framework**

Figure 3 illustrates a conceptual framework of the interrelations between both the mergers and acquisitions strategy, risk management, institutional characteristics, and financial results of Kenyan commercial banks. The graph represents the consequences of various mergers and acquisitions on financial success. First, mergers and acquisitions can have a direct impact on commercial banks' financial performance. In other words, mergers and acquisitions improve operational efficiency and market share, which enhances the financial performance of the bank. The synergy theory backs up this claim. Several experts have examined the relationship between mergers and acquisitions and bank financial performance, yielding paradoxical and unconvincing results. As a result, Hypothesis 1 asserts that there is no connection among mergers and acquisitions tactics and financial performance between Kenyan commercial banks.

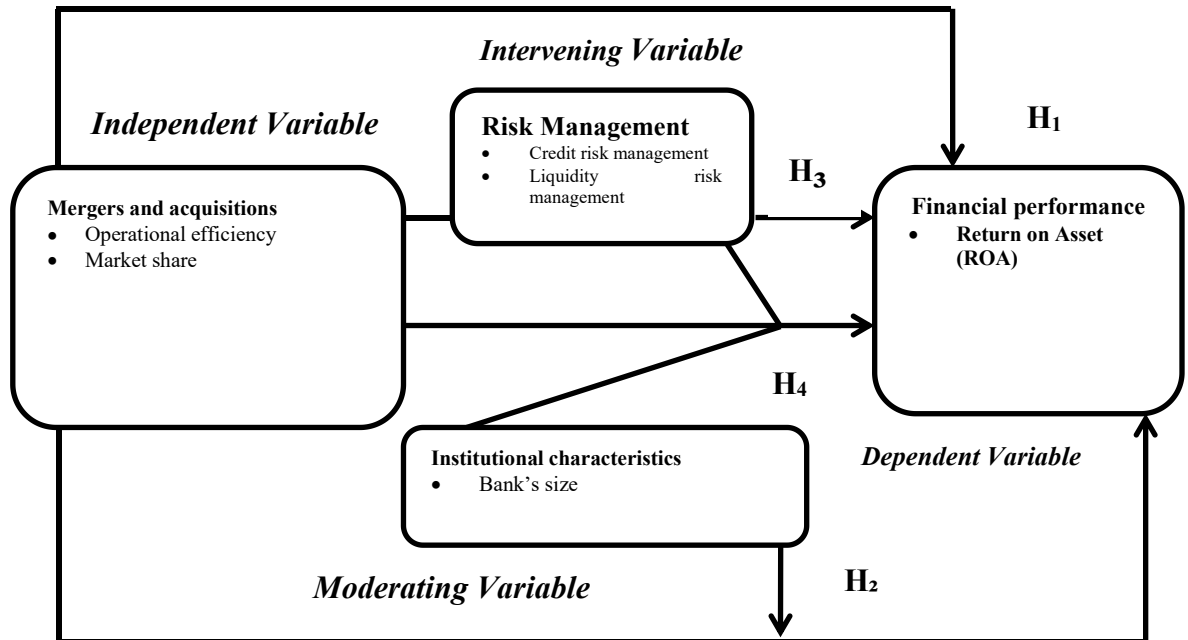
Mergers and acquisitions can influence financial performance by moderating institutional characteristics. Unlike small banks, large financial institutions can benefit from economies of scale through central management and pooled services. Customers have more faith in them with their money. Banks that embrace technological innovation may find that these platforms supplement their revenue. Empirical research has revealed that institutional characteristics influence financial success, but the type and direction of the impact are unknown. As a result, Hypothesis 2 contends that institutional characteristics have little influence on the relationship between Kenyan commercial banks' mergers and acquisitions and financial performance.

Mergers and acquisitions can have an indirect impact on commercial banks' financial performance by influencing risk management. In other words, mergers and acquisitions

can influence how a company manages risk, and risk management can influence financial success. The CBK's prudential rules are intended to ensure the safety and soundness of banking operations. The authorities impose liquidity restrictions and non-performing loan terms to protect depositors' interests. Some banks are unable to comply with these laws and must engage in restructuring, such as consolidation. As a result, Hypothesis 3 claims that risk management has little influence on the relationship between mergers and acquisitions and financial performance among Kenyan commercial banks.

Mergers and acquisitions strategy, risk management, and institutional characteristics can all impact commercial banks' financial success. Previous empirical research has shown that each of these characteristics influences financial performance (positive, negative, or none). As a result, hypothesis 4 contends that the combined impact of mergers and acquisitions, risk management, and institutional characteristics on Kenyan commercial bank financial performance is negligible. Figure 3 depicts the conceptual model that connects the study variables:

**Figure 3: Conceptual Framework**



Source: Researcher 2023

## 2.6 Research Hypothesis

The below hypothesis was tested in the study:

**H<sub>1</sub>:** There is no significant relationship between mergers and acquisitions and the financial performance among commercial banks in Kenya.

**H<sub>2</sub>:** There is no significant moderating roles of institutional characteristics on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.

**H<sub>3</sub>:** There is no significant intervening role risk management on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.



**H4:** There is no significant joint relationship of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The procedures and processes used to collect, sort, and analyze research data are referred to as research methodology (Kothari, 2011). The first section discusses the research philosophy, choice, and justification. The second section discusses research design, including the selection and justification. The third section delves into the study's population, the period's reason, and the population's selection. The chapter's fourth subsection examines data gathering sources and tools, as well as their explanation. The next subsection of the chapter describes the diagnostic test that will be used to analyze the data. Operationalization of the study variables and data analysis will close the chapter.

### **3.2 Research Philosophy**

The framework and assumptions that guide data collection, analysis, and utilization of a phenomenon are referred to as research philosophy. The research philosophy supports the research strategy and methods used in data analysis and interpretation (Saunders, Lewis, & Thornhill, 2007). Research philosophy also refers to the primary concepts that inform the researcher's decision on the research position to be adopted. (Carson, Gilmore, Perry, and Gronhaug, 2001): What, how, and why the research is done will depend on the research philosophy.

There are two major philosophies in business and management, which include phenomenology and positivism. The Phenomenological research paradigm supports qualitative research and concentrates on an individual's lived experience. The paradigm is skewed toward events as they occur, with no regard for theory, deduction, or assumptions. The paradigm stresses people's experience rather than an empirical or scientific approach. The synonyms for phenomenological paradigms are qualitative, subjectivist, humanistic, or translation paradigms, while those of positivistic paradigms are quantitative, objective, scientific, experimentalist, or paradigm of traditional research (Blumberg et al., 2005).

A phenomenological research paradigm or mindset is a perception of human conduct from the researcher's point of view. The act of investigating the truth within the realm of thought, therefore, seems to have an impact on what is real. According to Miller and Salkind (2002), a researcher who applies a phenomenological paradigm concentrates on the definitions people relate to the actual encounters pertaining to a situation or object instead of estimating it. This infers that this kind of researcher must individually interact with the object under study. By applying this kind of approach, specialist advisories are looked after instead of drawing samples from people (Collis & Hussey, 2003).

Positivists often assume that truth is given indefinitely and can be explained by measurable structures separate from the investigator and his or her instruments. According to reasoning by Orlikowski and Baroudi (1991), positivist research often tries to experiment with the theory to expand predictability of conditions. Orlikowski and Baroudi (1991) support the suggestion that positivism is effective where there is documentation of sanctioned proposals, measurable changes, hypothesis testing, and

hypothetical illustration of the object from the representation of the population ascertained.

Positivism as a research philosophy guided this study. The paradigm shifts toward a quantitative method of phenomena analysis, causality research, and concept testing (Orlikowski & Baroudi, 1991; Saunders et al., 2007). The study adopted this paradigm as it involved the use of both theoretical and empirical literature, the development of a conceptual framework, hypothesis testing, and establishing the causal link among the study variables.

### 3.3 Research Design

A research design is an overview, blueprint, or sketch for carrying out a study while controlling the variables that could affect the legitimacy of the findings (Burns & Grove, 2010). The adhesive or fixtures that carry elements of the study together are also known as the design (Trochim, 2005). Research blueprints are used to structure the study by demonstrating how the main components of the research study relate to each other and endeavor to answer the research questions. Exploratory, descriptive, and explanatory research designs are the three main types of research designs (Bhattacharjee, 2012). The designs are distinguished in the table 2 below:

**Table 2: Distinguishing features of research design**

	<b>Exploratory</b>	<b>Descriptive</b>	<b>Explanatory (Causal)</b>
Variable definition	Lead variables not expounded	Lead variables are expounded	Lead variables and fundamental associations expounded
Applications	Applied in circumstances	Applied in situations where a description of	Applied in situations where causal

	where new ideas, revelations and insights are required.	phenomena is required.	relationships between two variables need to be identified i.e., defining the impact of independent variable on dependent variable.
Example of applications	Why is transaction of a particular product reducing?	To portray the attributes of explicit gatherings like our biggest clients who represent more than 60 percent of our deals and dependent on the outcomes plan future highlighting endeavors.	At the point when an organization needs to contemplate the conduct of their prices towards the changing cost of their products, they utilize causal exploration.
	What can be done to improve customer's relationships?	Covariance of two factors – like does utilization of our services fluctuate by salary range.	Confirm the results or effectiveness of a new advertising campaign to conclude whether to precede it or not.
	What macro-economic factors are likely to affect our business?	To gauge the size of consumer bunches in a population that behaves in a specific manner. How frequently do recently wedded like to shop from our brand?	Gauge the development in the results of employees after reskilling them.

(Adapted from Abhijeet, 2018)

A correlational descriptive research design, which is relevant in this study, is the research design that facilitates a study analyzing correlations among study variables (Konthari& Garg, 2014). A correlational descriptive research design was used for the study, which included time series data. The design attempted to establish correlations between study variables as well as characterize the characteristics of phenomena as supported by (Konthari& Garg, 2014; Cooper& Schindler, 2008).

### 3.4 Population

30 Kenyan commercial banks that engaged in mergers and acquisitions between 1995 and 2017 forms the population of the study. This period stands out because it coincides with

an increase in commercial bank mergers and acquisitions in Kenya. The period also coincides with 2008 financial crisis, the BASEL Committee pronouncement i.e., II and III of 2004 and 2009 respectively, and the CBK prudential guidelines of 2013. Due to the small population size, no sampling was done.

### **3.5 Data Collection**

Data collection is the act of acquiring and assessing information about a specific measurement unit to answer the study question by testing the hypothesis and evaluating the outcome. All subjects of study, including business, management, humanities, physical sciences, and social sciences, have comparable data collection components. The purpose of information collection is to collect high-quality evidence to enable data analysis and, as a result, insights to enhance decision-making. Primary and secondary data are collected using various methods and devices (Kabir, 2016).

This research relied on secondary data gathered from documents and records including financial statements and the regulator's annual report. Secondary data was deemed adequate due to its credible sources. It also saves time and money when gathering large amounts of data for longitudinal, cross-sectional, and time series analysis. Because the data ranged from 1995 to 2017, it was deemed adequate for regression and outcome dependability. The information was gathered three years before and three years after mergers and acquisitions, with the year of the transaction omitted. The information was gathered using the data collection sheet (Appendices I). If the information was not available on the commercial banks' websites, it was sourced from the Central Bank of

Kenya. Performance loans, non-performing loans, total assets, net income, total income, operational costs, aggregate assets, current assets, and current liabilities were all gathered.

### **3.6 Diagnostic Tests**

To verify that the information was free from any bias caused by the linear regression model suppositions, a diagnostic test was performed. Linearity, normalcy, multicollinearity, auto-correlation, and homoscedasticity presumptions were tested on the data. If these assumptions are not fulfilled in a linear regression analysis, Type I or Type II, or over or underestimation of impact, happens (Osborne & Walters, 2002).

#### **3.6.1 Independence Test**

In linear regression analysis, the predictor variables try to explain the response variable. One of the assumptions to be made is that the study variables should have little or no resemblance. In the linear regression study, the researcher utilized the Durbin-Watson (DW) statistic to test for autocorrelation. Durbin-Watson values range from 0 to 4, with 0 indicating positive autocorrelation and 2 indicating negative autocorrelation. These parameters are given a range of 1.5-2.5 by Durbin and Watson (1951). This guarantees that the value of  $y(x+1)$  is independent of the values of  $y(x)$ . If this assumption is not satisfied, the variables are converted from absolute to relative using log transformation.

#### **3.6.2 Linearity Test**

Another necessity for linear analysis is a linear correlation between both the independent and dependent variables in which ANOVA was used to test for the assumption. To make the relationship between the independent and dependent variables linear, the transformation method could be used.

### **3.6.3 Multicollinearity Test**

There must be little or no multicollinearity for linear regression to work. Multicollinearity occurs when the independent variables are highly connected to one another. Multicollinearity can be tested using a variety of criteria, including the correlation matrix, tolerance, variance inflation factor, and condition index. The researcher employed the Variance Inflation Factor (VIF), where a VIF greater than 5 suggests the possibility of multi-collinearity, whilst a VIF greater than 10 shows the certainty of multi-collinearity. To determine the presence of multi-collinearity, VIF (tolerance) was used. Variables with multicollinearity issues were removed or substituted. The factors producing multicollinearity were deleted as a remedy to the problem.

### **3.6.4 Heteroscedasticity Test**

Linear regression analysis also assumes that the data is homoscedastic, i.e., residuals are equal across the regression line or have a similar variance. The researcher used Breusch-Pagan to test for heteroscedasticity. Additional independent variables were added where the assumptions were violated.

### **3.6.5 Normality Test**

The presumption that the residuals of the reaction variables are normally distributed around the mean is tested using normality tests. The Kolmogorov-Smirnov or Shapiro-Wilk tests were used to determine it. If the data ended in failure the test, the researcher transformed the data using natural logarithms.

### 3.7 Operationalization of Study Variables

The process by which researchers undertaking quantitative and qualitative research illustrate how factors will be quantified is referred to as operationalization (Sekaran, 1992). This researcher focused on mergers and acquisitions, risk management, institutional characteristics, and financial performance. Merger and acquisition methods was the independent variables, and financial performance was the dependent variable. Risk management was the intervening variable, and institutional characteristics was the moderating variables.

Mergers and acquisitions were assessed by operational efficiency and market share. To determine operational efficiency, the ratio of operating expenses to total income was used, and to calculate market share, the ratio of total revenue to industry revenue was used. The variables and predictors used in this study are the same as those used in previous studies in Kenya by Odada, Njuguna, and Achoki (2016) and Ombaka and Jagongo (2018). Risk management predictors include credit risk management and liquidity risk management. The ratio of non-performing loans to total loans was used to calculate credit risk, and the ratio of current assets to current liabilities was used to calculate liquidity risk. The predictors and metrics used by Folajimi (2020) and are comparable (Mardiana et al., 2018). As a financial performance metric, a ratio of operational income to total assets was used (ROA). The following studies used return on assets to evaluate financial performance: (Boloupremo & Ogege, 2019; Ogada, Njuguna, & Achoki, 2016; Omaka & Jagongo, 2018).

**Table 3: Operationalization and Measurement of Variables**

Variables	Operational	Indicator(s)	Measurement(s)	Study using comparable
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	definition			measures
<b>Financial performance</b>	Objective of profit maximization	Return on asset.	Net income/Total asset	Boloupremo & Ogege, (2019)
<b>Mergers and acquisitions</b>	Restructuring	Operational Efficiency	Total operating expenses/total income	Putra et al., (2018)
		Market Share	Bank's asset /total commercial bank asset in the economy	Levine <i>et al.</i> , (2003)
<b>Institutional characteristic</b>	Total assets	Firm's size	Log of total assets	Rahman & Widyasari, (2008)
<b>Risk Management</b>	Represent risk management behavior of the management	Credit Risk Management	Non-Performing Loan ratio (NPLR)	Folajimi, (2020)
		Liquidity Risk Management	Current Asset/Current Liabilities	Mardiana et al., 2018

Source: Researcher 2022

### 3.8 Data Analysis

Three methodologies were used to determine the disparity in financial performance between the pre-merger/acquisition and post-merger/acquisition periods. To begin, ratios were determined by averaging three years prior to and three years following bank mergers and acquisitions. Secondly, Abbas, 2014; Ong, Teo, & Tec, 2011). The ROA ratio was used as a metric and as a financial performance indicator. The analysis failed to account for the year of the merger or acquisition as any change might be due to the immediate effect of mergers and acquisitions overvaluation or undervaluation effect.

Multiple regressions were used to evaluate the mathematical connection between the study variables in the two periods. The model's predictive ability was assessed using an F-Test. The goodness of fit of the model was ascertained using a coefficient of determination (R<sup>2</sup>). Baron and Kenny (1986) investigated the intervening and moderating effects on the interaction among predictor and outcome variables. Using multiple regression analysis, the effects of mergers and acquisitions, risk management, and institutional factors on commercial banks' overall financial performance were investigated.

**Table 4: Objectives, Hypothesis, Analytical Model, and Interpretation of Results**

Objective	Hypothesis	Analytical model(s)	
<p>To determine the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya</p>	<p><b>H<sub>1</sub>:</b> There is no significant relationship between mergers and acquisitions and financial Performance of commercial banks in Kenya</p>	<p>i) <math>\frac{\bar{x}_1 - \bar{x}_2}{T \cdot SE(\bar{x}_1 - \bar{x}_2)}</math> ..... (3.1) unpaired t-test</p> <p>ii) <math>ROA = \beta_0 + \beta_1 OF + \beta_2 MS + \epsilon_i</math> ..... (3.2)-before M&amp;A</p> <p>iii) <math>ROA = \beta_0 + \beta_1 OF + \beta_2 MS + \epsilon_i</math> ..... (3.3)-After M&amp;A</p> <p><b>Where</b>            ROA-Return on Asset            OF-Operational efficiency            MS-Market share  <math>\beta_0</math>= intercept  <math>\epsilon</math>= Error term            t=student t-test            x bar 1 and x bar =sample mean            SE=standard error of the mean</p>	<p>-p=value from student t- test of &lt;0.05 shows a significant mean difference</p> <p>-Coefficient of determination (adjusted R2) value shows the percentage of financial performance explained by mergers and acquisitions.</p> <p>-Regression coefficient will show the amount and direction of the influence</p> <p>Reject H0 if p&lt;0.05.</p>
<p>To determine the influence of institutional characteristics on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya</p>	<p><b>H<sub>2</sub>:</b> There is no significant moderating roles of institutional characteristics on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.</p>	<p>Direct and Moderated regressions will be estimated. Given ROA as the dependent variable, mergers, and acquisitions as the independent, IC as the moderating variable and (mergers and acquisition*IC is the interaction between the independent and moderating variable then the study will estimate:</p> <p><b>Direct relationship:</b>  <math>ROA = \beta_0 + \beta_1 \text{mergers and acquisition} + \epsilon</math> ..... (3.4)</p> <p><b>Moderated:</b>  <math>ROA = \beta_0 + \beta_1 M\&amp;A + \beta_2 IC + \beta_3 (M\&amp;A) IC + \epsilon</math> ..... (3.5)</p> <p><b>Where</b>            IC-Institutional characteristics</p>	<p>To test for moderating effect, the study will use the P-value of the estimate of the interaction term (mergers and acquisition*IC).            If the P-value of the estimate of the interaction term were less than 0.05 then there would be moderating effect, otherwise no moderating effect.</p>

<p>To investigate the effect of risk management on the relationship between Mergers and acquisitions and financial performance among commercial banks in Kenya</p>	<p><b>H<sub>3</sub>:</b> There is no significant intervening role risk management on the relationship between mergers and acquisitions and financial performance among commercial banks.</p>	<p>i) Stepwise Regression Analysis (Baron and Kenny Approach (1986))</p> <p>i). <math>ROA = \beta_0 + \beta_1 M\&amp;A</math>.....(3.6)</p> <p>ii). <math>RM = \beta_0 + \beta_1 M\&amp;A + \epsilon_i</math>.....(3.7)</p> <p>iii). <math>ROA = \beta_0 + \beta_1 RM + \epsilon_i</math>.....(3.8)</p> <p>iv). <math>ROA = \beta_0 + \beta_1 M\&amp;A + \beta_2 RM + \epsilon_i</math>.....(3.9)</p> <p><b>Where</b></p> <p><b>M&amp;A-Mergers and Acquisition</b></p> <p><b>RM-Risk Management</b></p>	<p>To test for mediation effect, the study will use the P-value of the estimate of the natural indirect effect. If the P-value of the estimate of natural indirect effect were less than 0.05 then there would be mediation effect, otherwise no mediation effect.</p>
<p>To examine the joint effect of Mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.</p>	<p><b>H<sub>4</sub>:</b> There is no significant joint relationship of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.</p>	<p>i) <math>ROA = \beta_0 + \beta_1 OF + \beta_2 MS + \beta_3 CRM + \beta_4 LRM + \beta_5 FS + \epsilon_i</math>..(4.0) before M&amp;A</p> <p>ii) <math>ROA = \beta_0 + \beta_1 OF + \beta_2 MS + \beta_3 CRM + \beta_4 LRM + \beta_5 FS + \epsilon_i</math>.... (4.1) after M&amp;A</p> <p><b>Where;</b></p> <p><b>FS-Firm's size</b></p>	<p>To test for the joint effect, the study will use the F test. If the P-value of the F test were less than 0.05 then there would be joint effect, otherwise no joint effect. Additionally, the study will use P-value of the estimates to test for individual effect. If the P-value of the regression coefficient(s) is less than 0.05 then the regression coefficients are significant otherwise, it is insignificant. If significant then the null hypothesis would be rejected.</p>

Source: Researcher (2022)

## **CHAPTER FOUR: DESCRIPTIVE DATA ANALYSIS AND RESULTS**

### **4.1 Introduction**

This section provides an in-depth analysis of the foremost goal of the study: to examine the interaction among merger and acquisition, risk management and institutional characteristics on financial performance across Kenyan commercial banks. The narrowed goal was to assess the connection among commercial banks' mergers and acquisitions and financial performance in Kenya. The purpose of this study was to determine the impact of institutional characteristics on the relationship between mergers and acquisitions and financial performance among Kenyan commercial banks, as well as the impact of risk management on the relationship among both mergers and acquisitions and financial performance among Kenyan commercial banks. Finally, the impact of Kenyan commercial banks' mergers and acquisitions, risk management, institutional characteristics, and financial performance will be evaluated. Descriptive statistics, diagnostic tests, and correlation analysis are all covered in this chapter.

### **4.2 Descriptive Statistics**

Descriptive statistics describe the main characteristics of the data used in the study. Descriptive statistics present data in the form of visual representations such as graphs and tables. To summarize data into informative status, descriptive statistics use measures of central tendency such as mean and mode, as well as measures of variability such as standard deviation. The mean is used to describe the observation's average of the numbers. The mode describes the most regular occurrence. The Median explains an observation's middle value. The variability in the findings is described by the standard

deviation. The terms Minimax and maximum define the largest and smallest values in an observation, respectively. The data's normality is characterized by the normality test, which includes kurtosis and skewness.

The researcher determined the minimum and maximum, mean, standard deviation, skewness, and kurtosis of the study variables to achieve a reasonable overview of the secondary data gathered from Central Bank reports and particular commercial bank websites for phases when mergers or acquisitions occurred.

**Table 5: Summary of Descriptive Statistics of Study Variables**

Phase		Operational				Credit risk	Liquidity risk
		ROA	efficiency	Market share	Firm's size	management	management
Post-merger	Mean	.707	2.081	1.535	4.193	.147	1.203
	N	87	87	87	87	87	87
	Std. Deviation	.120	.500	.076	.684	.084	.084
	Minimum	.398	1.158	1.331	2.875	.000	.996
	Maximum	1.031	3.395	1.722	5.510	.311	1.355
	Kurtosis	.110	-.171	-.013	-.569	-.825	-.489
	Skewness	.298	.360	-.266	.181	.188	-.355
Pre-merger	Mean	.422	.080	1.526	3.870	.161	1.207
	N	183	183	183	183	183	183
	Std. Deviation	.221	.267	.077	.588	.084	.089
	Minimum	.000	.000	1.315	2.639	.004	.942
	Maximum	.864	1.605	1.721	5.388	.349	1.466
	Kurtosis	-.919	17.800	-.032	-.150	-.654	.304
	Skewness	-.025	4.200	-.141	.164	.178	-.209

Source: Research findings (2022)

The results presented in table 5 present the analysis for the descriptive statistics of mergers and acquisition, risk management, institutional characteristics, and financial performance among commercial banks in Kenya. The mean for return on asset

premergers and acquisitions is (ROA) is 0.422 while post-merger and acquisitions are 0.707. This means, the average financial performance among commercial bank in Kenya before mergers and acquisitions as measured using ROA was 4.22% while post mergers and acquisitions is 7.07%. The average performance improved during the post mergers and acquisitions., from 4.22% to 7.07%. The standard deviation premergers and acquisitions is 0.221 while in post mergers and acquisitions is 0.120. During pre-and post-mergers/acquisitions, the standard deviations are very close to the mean, indicating that the data is concentrated around the mean, i.e., no wide variability or likelihood of random variables. The minimum is 0.000 and a maximum of 0.864 for premergers/acquisitions and 0.398 and 1.031 for the post mergers/acquisitions period. The minimum of 0.000 as compared to the minimum of 0.398 in the post-merger/acquisitions period is an indication that more banks were performing dismally before been acquired or combined with another bank. The Skewness of -0.025 and the Kurtosis of -0.919 for ROA are both negative, referencing the data's distribution is peaked and possesses a thick tail. The negative skewness and kurtosis are an indication of low performance before mergers and acquisitions. The skewness and kurtosis in the post mergers and acquisitions is 0.298 and 0.110, both of which are positive, an indication of improved financial performance.

The mean operational efficiency is 0.080 in premergers/acquisitions and 2.081 in post mergers/acquisitions indicating an improvement. The standard deviation in premergers/acquisitions is 0.267 and 3.395 in post mergers/acquisition, inferring that the data is concentrated around the mean, which reduces the outliers in the data. The minimum value is 0.000 and the maximum value is 1.605 during pre-merger/acquisitions

and 1.158 of which both are positive. This indicates that the banks were able to generate enough revenue to cover the expenses. The mean ratio for market share is 1.526 with a standard deviation of 0.077 during the pre-merger/acquisitions period and 1.535 and 0.076 in the post-mergers/acquisitions period, both of which are within a narrow range.

The mean for firm size is 3.870 and a standard deviation of 0.588 in the pre/merger/acquisitions period, 4.193, and 0.684, inferring that the data is concentrated around the mean, reducing the outliers. The mean for credit risk management is 0.161, while the standard deviation is 0.084 in the pre-merger/acquisitions period and 0.147 and 0.084 in the post-merger/acquisition period. The mean for liquidity risk management is 1.270, while the standard deviation is 0.089 in the pre/merger/acquisition period, 1.203, and 0.084 during the post-merger/acquisitions period. The minimum value is 0.942, while the maximum value is 1.466 in the premergers/acquisitions period and 0.996 and 1.355 during the post mergers/acquisitions, which indicates that banks have enough current assets to cover their current liabilities.

The number of observations for the study was 183 in the pre-merger period and 87 for the post-merger period. The reduction in the number in the post-merger period is because the mergers resulted in a new bank where the two banks cease to exist, while in the case of acquisitions, one bank ceases to exist. The mergers and acquisitions in this study relate to those that happened in the period 1995–2017. Due to inequality in the events happening, the years were coded as years 1-3 for the purpose of analysis. Thirty commercial banks went through mergers and acquisitions in the years 1995–2017. The mean of ROA improved from 0.422 to 0.71.

### 4.3 Diagnostic tests

The section presents an analysis of the diagnostic tests. The diagnostic tests have the objective of ascertaining the assumptions of the linear regression model as outlined above.

#### 4.3.1 Independence test before mergers and acquisitions

To perform linear regression analysis, the data must have little or no autocorrelation. When the residuals fail to be independent of one another, autocorrelation arises. The Durbin–Watson (1951) statistic tested for autocorrelation in the data. The outcomes are as follows:

**Table 6: Independence test result before mergers and acquisitions**

Model	Durbin-Watson
1	1.606

- a. Predictors: (Constant), Liquidity risk management pre-merger, Market share pre-merger, Operational efficiency pre-merger, Firm's size pre-merger, Credit risk management pre-merger
- b. Dependent Variable: ROA pre-merger

**Source: Research finding (2022)**

The model summary and overall fit statistics are shown in table 6 operational efficiency; market share, liquidity risk management, credit risk management, and firm size are the independent variables, with return on assets being the dependent variable. The Durbin-Watson statistic is equal to 1.606, which is in the middle of the two essential values of 1.5 and 2.5, indicating that the data has no first order linear autocorrelation.



### 4.3.2 Linearity test before mergers and acquisitions

To determine the linearity of the connection between the predictor and outcome variables, the Analysis of variance linearity test was used. Nonlinearity was found to be important if the estimated F value for the nonlinear constituent was less than 0.05. The analysis of variance outcome is depicted in table 7 below.

**Table 7: Linearity test before mergers and acquisitions**

		Sum of				
		Squares	Df	Mean Square	F	Sig.
Operational efficiency pre-merger	Between Groups	12.386	181	.068	.116	.996
	Within Groups	.590	1	.590		
	Total	12.976	182			
Market shares pre-merger	Between Groups	1.074	181	.006	5.190	.339
	Within Groups	.001	1	.001		
	Total	1.075	182			
Firm's size pre-merger	Between Groups	62.834	181	.347	76.496	.091
	Within Groups	.005	1	.005		
	Total	62.838	182			
Credit risk management pre-merger	Between Groups	1.275	181	.007	1.631	.565
	Within Groups	.004	1	.004		
	Total	1.279	182			
Liquidity risk management pre-merger	Between Groups	1.414	181	.008	.320	.921
	Within Groups	.024	1	.024		
	Total	1.438	182			

**Source: Research finding (2022)**

Based on the significance from linearity values total of P 1.438 greater than 0.05 ( $p > .05$ ), therefore it can be inferred that the entire variable has a linear relationship.

### 4.3.3 Multicollinearity test before mergers and acquisitions

The assessment for the multicollinearity test is displayed in table 8 below.

**Table 8: Results of multicollinearity test before mergers and acquisitions**

---

Model	Tolerance	VIF
1 (Constant)		
Operational efficiency pre-merger	.850	1.177
Market shares pre-merger	.974	1.027
Firm's size pre-merger	.787	1.270
Credit risk management pre-merger	.636	1.571
Liquidity risk management pre-merger	.668	1.498

---

a. Dependent Variable: ROA pre-merger

**Source: Research findings (2022)**

Linear regression necessitates little or no multicollinearity. When the predictor variables have a strong correlation with one another, multicollinearity occurs. Multicollinearity can be tested using a variety of criteria, including the correlation matrix, tolerance, variance inflation factor, and condition index. A Variance Inflation Factor (VIF) was used where a  $VIF > 5$  indicates that multi-collinearity may be present, while a  $VIF > 10$  indicates a certainty that multi-collinearity is present. The result from the test indicates that the VIF factors for operational efficiency, market share, firm size, credit risk management, and liquidity risk management are 1.177, 1.027, 1.270, 1.571 and 1.498, respectively. The VIF in all the variables is less than five, which is an indication that there is no multicollinearity among the variables.

#### 4.3.4 Heteroscedasticity test before mergers and acquisitions

Linear regression analysis assumes that the data is homoscedastic, i.e., residuals are equal across the regression line or have a similar variance. The researcher used Breusch-Pagan to test for heteroscedasticity by classifying the data into high and low values to evaluate whether the representative was significantly different. The results of the heteroscedasticity diagnostic tests are presented in 4.5 below.

**Table 9: Breusch-Pagan test of homogeneity before mergers and acquisitions**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.040	5	.008	3.224	.008 <sup>b</sup>
	Residual	.434	177	.002		
	Total	.474	182			

a. Dependent Variable: sqres

b. Predictors: (Constant), Liquidity risk management pre-merger, Market share pre-merger, Operational efficiency pre-merger, Firm's size pre-merger, Credit risk management pre-merger

**Source: Research finding (2022)**

Table 9 above shows there was no evidence of heteroscedasticity in the data since the computed Breusch-Pagan statistics is higher than the threshold ( $p > .05$ ).

#### 4.3.5 Normality test before mergers and acquisitions

Linear regression analysis assumes that all variables should be multivariate normal. The researcher used histogram and the Kolmogorov-Smirnov and Shapiro-Wilk (1965) to test for normality. Non-linear transformation and log-transformation were used to adjust data that was not normally distributed.

**Table 10: Normality test before mergers and acquisitions**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
ROA pre-merger	.051	183	.200*	.976	183	.006
Operational efficiency pre-merger	.421	183	.200*	.334	183	.007
Market shares pre-merger	.036	183	.200*	.996	183	.912
Firm's size pre-merger	.048	183	.200*	.985	183	.054
Credit risk management pre-merger	.042	183	.200*	.982	183	.057
Liquidity risk management pre-merger	.045	183	.200*	.993	183	.567

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

**Source: Research finding (2022)**

The table 10 above shows an analysis of normality test and the results. The result indicate that the data is normally distributed as the P value for operational efficiency, market share, liquidity risk management and credit risk management is more than 0.05.

**Table 11: Independence test post mergers and acquisitions**

Model	Durbin-Watson
1	1.553

**Source: Research findings (2022)**

The model summary and overall fit statistics are shown in table 11 market share, operational efficiency, liquidity risk management, credit risk management, and firm size were the independent variables, and return on assets was the dependent variable. The

adjusted  $R^2$  is 0.020, indicating linear regression accounts for 2% of the data variance. The Durbin-Watson statistic is equal to 1.553, which is in the middle of the two essential values of 1.5 and 2.5, indicating that the data has no first order linear autocorrelation.

#### 4.3.7 Linearity test post mergers and acquisitions

The table 12 below shows the result of the analysis for linearity test.

**Table 12: Linearity test post mergers and acquisitions**

		Sum of				
		Squares	Df	Mean Square	F	Sig.
Operational efficiency Post Merger	Between Groups	21.534	86	.007	.849	.699
	Within Groups	.000	0	.		
	Total	21.534	86			
Market share Post Merger	Between Groups	.495	86	.006	1.421	.125
	Within Groups	.000	0	.		
	Total	.495	86			
Firm's size	Between Groups	40.196	86	.467	1.388	.141
	Within Groups	.000	0	.		
	Total	40.196	86			
Credit risk management	Between Groups	.610	86	.007	.889	.645
	Within Groups	.000	0	.		
	Total	.610	86			
Liquidity risk management	Between Groups	.605	86	.007	.849	.699
	Within Groups	.000	0	.		
	Total	1.605	86			

**Source: Research finding (2022)**

The linearity of the connections between the independent and dependent variables was tested using the ANOVA test of linearity. Both the linear and nonlinear components of a pair of variables were computed by the test. If the estimated F value for the nonlinear component was less than 0.05, nonlinearity was considered significant. Based on the

significance from linearity values total of P 1.605 greater than 05 ( $p > .05$ ), it can be inferred that the entire variable has a linear connection.

#### 4.3.8 Multicollinearity test post mergers and acquisitions

The table 13 below shows the result for the multicollinearity test.

**Table 13: Multicollinearity result post mergers and acquisitions**

Model		Unstandardized		Standardized		Collinearity Statistics	
		Coefficients		Coefficients		Tolerance	VIF
		B	Std. Error	Beta	t	Sig.	
1	(Constant)	.645	.379		1.703	.092	
	Operational efficiency	.056	.026	.233	2.108	.038	.934
	Post Merger						
	Market share Post	-.095	.174	-.060	-.546	.586	.943
	Merger						
	Firm's size	.014	.020	.079	.700	.486	.898
	Credit risk management	-.040	.186	-.028	-.215	.830	.668
	Liquidity risk	.032	.183	.022	.175	.861	.696
	management						1.437

a. Dependent Variable: ROA Post Merger

**Source: Research findings (2022)**

Linear regression requires that there be little or no multicollinearity. Multicollinearity occurs when the independent variables are highly correlated with each other. There are several criteria for testing multicollinearity, including correlation matrix, tolerance, variance inflation factor, and condition index. A Variance Inflation Factor (VIF) was used where a  $VIF > 5$  indicates that multi-collinearity may be present, while a  $VIF > 10$  indicates a certainty that multi-collinearity is present.

The result from the test indicates that the VIF factors for operational efficiency, market share, firm size, credit risk management and liquidity risk management are 1.071,

1.061,1.113,1,496 and 1.437. The VIF in all the variables are less than 5 which is an indication that there is no Multicollinearity among the variables.

#### 4.3.9 Heteroscedasticity test post mergers and acquisitions

The researcher used Breusch-Pagan to test for heteroscedasticity and the results are as per the table 14 below.

**Table 14: Breusch-pagan test of homogeneity post mergers and acquisitions**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	5	.001	1.273	.284 <sup>b</sup>
	Residual	.035	81	.000		
	Total	.038	86			

a. Dependent Variable: Sqres

b. Predictors: (Constant), Liquidity risk management, Market share Post Merger, Operational efficiency Post Merger, Firm's size, Credit risk management

**Source: Research findings (2022)**

Table 15 above shows there was no evidence of heteroscedasticity in the data since the computed Breusch-pagan statistics is higher than the threshold ( $p > .05$ ).

#### 4.3.10 Normality test post mergers and acquisitions

The result for the normality test is as indicated in table 16 below.

**Table 15: Normality test post mergers and acquisitions**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
ROA pre-merger	.073	87	.200*	.984	87	.352
Operational efficiency pre-merger	.081	87	.200*	.982	87	.260
Market shares pre-merger	.061	87	.200*	.978	87	.149

Firm's size pre-merger	.077	87	.200*	.989	87	.672
Credit risk management pre-merger	.060	87	.200*	.972	87	.055
Liquidity risk management pre-merger	.066	87	.200*	.977	87	.121

---

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

**Source: research findings (2022)**

The result above indicate that the data is normally distributed as the P value for operational efficiency, managerial, market share, liquidity risk management and credit risk management efficiency is more than 0.05 which is more or equal to the acceptable of 0.05.

**4.4. Correlation analysis**

The strength of a linear connection between two variables is evaluated utilizing correlation analysis. The Pearson correlation coefficient was used to assess the relationships between the variables in the study. The outcomes are listed in table 16 below.



**Table 16: Correlation analysis for mergers and acquisitions**

Variables		ROA pre-merger	Operational efficiency pre-merger	Market shares pre-merger	Firm's size pre-merger	Credit risk management pre-merger	Liquidity risk management pre-merger
ROA pre-merger	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	183					
Operational efficiency pre-merger	Pearson Correlation	0.067	1				
	Sig. (2-tailed)	0.366					
	N	183	183				
Market shares pre-merger	Pearson Correlation	0.017	0.027	1			
	Sig. (2-tailed)	0.820	0.716				
	N	183	183	183			
Firm's size pre-merger	Pearson Correlation	0.109	-.320**	-.150*	1		
	Sig. (2-tailed)	0.142	0.000	0.043			
	N	183	183	183	183		
Credit risk management pre-merger	Pearson Correlation	-.186*	-0.111	0.055	-.259**	1	
	Sig. (2-tailed)	0.012	0.136	0.459	0.000		
	N	183	183	183	183	183	
Liquidity risk management pre-merger	Pearson Correlation	-0.078	0.050	-0.003	-.250**	.559**	1
	Sig. (2-tailed)	0.295	0.499	0.966	0.001	0.000	
	N	183	183	183	183	183	183

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

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

**Source: Research Finding (2022)**

According to Table 16, operational efficiency ( $r = 0.067$ ,  $p = 0.01$ ) is highly connected to financial performance. The positive association indicates that improving operational efficiency leads to improved financial success as measured by ROA. This means that for a company to attain optimal operational efficiency, it must implement operational cost-cutting measures, revenue-boosting tactics, and improvements to its capital base, asset quality, and liquid assets (Musah et al., 2019). The findings are comparable to those of Ranjan and Bishnu (2017), who discovered a substantial positive association between operational efficiency and ROA. However, the findings contradicted those of Musah et al. (2019; Meseret & Getahun, 2017; Hongxing et al., 2018), who showed a negative link, and Rania and Warrad (2015), who discovered no relationship between operational efficiency and ROA.

ROA has an insignificant positive connection with market share ( $r = 0.017$ ,  $p = 0.01$ ). This implies that as market share grows, so does the ROA, but with a lower margin. This observation is since enterprises with a large market share have lower performance as evaluated by ROA. The rationale suggested for this discrepancy from theoretical expectation is that enterprises with a large market share tend to return low margins (Fraering & Minor, 1994). These findings are like those of Fraering and Minor (1994), Hagigi et al. (1990), and Mutshinyani (2009). The findings contradict previous studies that found a strong positive association between market share and ROA. The finding is since a larger market share attracts economies of scale, which results in benefits such as lower manufacturing costs and thus higher returns (Etale et al., 2016; Leverty, 2001; Venkatraman & Prescott, 1990).

The size of the firm has a substantial positive link with financial performance as assessed by ROA ( $r = 0.109$ ;  $P > 0.05$ ). This means that when the firm's size grows, so does the return on assets, and vice versa. Mutunga and Owino (2017) research yielded similar results. Studies that contradicted the conclusions include those of Eyigege (2018), Olalade et al. (2017), and Mohamed (2015), who discovered a negative significant connection. This is because increasing the firm's size may result in diseconomies of scale and, as a result, poor financial performance. According to other studies, firm size has no effect on a firm's financial performance as evaluated by ROA (Sudrajat, 2020).

Credit risk management ( $r = -.186$ ,  $P 0.05$ ) is significantly connected with financial performance as evaluated by ROA. This means that if credit risk rises, so does financial performance, and vice versa. It is also possible to conclude that a unit change in non-performing loans results in a corresponding change in financial performance (Yeasin, 2021). Financial performance as evaluated by ROA is strongly negatively associated to liquidity risk management ( $r = -.078$ ,  $p 0.05$ ). This means that if liquidity risk rises, so will financial performance, and vice versa. Because a corporation does not have enough resources to fund its near obligations, it seeks external financing, which can be costly and hence has a negative influence on financial performance (Ariffin, 2012).

**Table 17: Correlation analysis post mergers and acquisitions**

		ROA Post Merger	Operational efficiency Post Merger	Market share Post Merger	Firm's size	Credit risk management	Liquidity risk management
ROA Post Merger	Pearson Correlation Sig. (2-tailed)	1					
	N	87					
Operational efficiency Post Merger	Pearson Correlation Sig. (2-tailed)	.253*	1				
	N	87	87				
Market share Post Merger	Pearson Correlation Sig. (2-tailed)	-0.094	-0.057	1			
	N	87	87	87			
Firm's size	Pearson Correlation Sig. (2-tailed)	0.136	0.178	-.224*	1		
	N	87	87	87	87		
Credit risk management	Pearson Correlation Sig. (2-tailed)	-0.086	-.216*	0.084	-0.194	1	
	N	87	87	87	87	87	
Liquidity risk management	Pearson Correlation Sig. (2-tailed)	-0.035	-0.132	-0.006	-0.146	.546**	1
	N	87	87	87	87	87	87

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

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

**Source: Research findings (2022)**

According to Table 17, operational efficiency ( $r = 0.253$ ,  $p > 0.051$ ) is highly connected to financial performance as evaluated by ROA. The positive association indicates that improving operational efficiency leads to improved financial success as measured by ROA. This suggests that the enterprises were able to attain optimal operating efficiency, increased revenue, improved capital base asset quality, and liquid assets because of the mergers and acquisitions. This result is comparable to that of (Ranjan & Bishnu, 2017; Megeid et al., 2019; and Natarajan et al., 2017). Other researchers showed an inverse link between operational efficiency and ROA (Musah et al., 2019; Meseret & Getahun, 2017; Hongxing et al., 2018), while others found no association at all (Rania & Warrad, 2015).

Market share ( $r = -0.094$ ,  $p > 0.05$ ) shows a substantial inverse link with financial performance as evaluated by ROA. This implies that if market share increases, so will the ROA, and vice versa. This is because as the firm grows, it may encounter decreased profitability due to poor margins. The results were comparable to those of (Fraering & Minor, 1994; Hagigi et al., 1990; Mutshinyani, 2009). The findings contradicted those of (Etale et al., 2016; Leverty, 2001; Venkatraman & Prescott, 1990). This author discovered that as market share grows, so does ROA because enterprises with a large market share benefit from economies of scale and efficient exploitation of idle shared resources.

The firm's size ( $r = .136$ ;  $P > 0.05$ ) demonstrates a substantial positive link with financial performance as evaluated by ROA. This means that when the firm's size grows, so does the return on assets, and vice versa. Mutunga and Owino conducted a study that yielded similar results (2017). Studies that found a negative association (Eyigege, 2018; Olawale et al., 2017; Mohamed, 2015) had conflicting findings. The observed discrepancy is

because when firm size increases, it may result in diseconomies of scale and thus poor financial performance. According to other studies, firm size has no effect on a firm's financial performance as evaluated by ROA (Sudrajat, 2020).

Credit risk management ( $r = -.085$ ,  $p = 0.05$ ) is significantly connected with financial performance as evaluated by ROA. This means that if credit risk rises, so does financial performance, and vice versa. It can also be deduced that a unit change in a non-performing loan causes a corresponding change in financial performance (Yeasin, 2021).

Liquidity risk management ( $r = -0.026$ ,  $p = 0.01$ ) has a negligible negative relationship with financial performance as evaluated by ROA. This indicates that if liquidity risk rises, so will financial performance, and vice versa. The negative relationship exists because when a company does not have enough resources to fund its obligations, it is unable to lower the expenses that may have been incurred on external financing (Ariffin, 2012).

#### **4.5 Chapter summary**

This chapter gave the descriptive analysis results, which included summary data for individual variables for the 30 mergers and acquisitions that occurred in Kenya between 1997 and 2017. The study relied on secondary data obtained three years before mergers and acquisitions and three years after mergers and acquisitions, with the year of agreement deleted.

The descriptive results show that pre-merger and acquisitions financial performance was 0.422, whereas post-merger and acquisitions financial performance was 0.707.

This means that the average financial performance of Kenyan commercial banks before mergers and acquisitions was 4.22%, whereas post mergers and acquisitions was 7.07%.

The standard deviation before mergers and acquisitions is 0.221, while it is 0.120 after

mergers and acquisitions. The standard deviations are near to the mean during and after mergers/acquisitions, showing that the data is contained around the mean, with little, large fluctuation or likelihood of random factors. The prior mergers/acquisitions period has a minimum of 0.000 and a maximum of 0.864, and the post mergers/acquisitions period has a minimum of 0.398 and a maximum of 1.031. The difference between the minimum of 0.000 and the minimum of 0.398 in the post-merger/acquisitions period indicates that more banks were performing poorly before being purchased or consolidated with another bank. ROA has a Skewness of -0.025 and a Kurtosis of -0.919, indicating that the distribution of the data is peaked and has a thick tail. Negative skewness and kurtosis indicate poor performance prior to mergers and acquisitions techniques. The skewness and kurtosis after mergers and acquisitions are 0.298 and 0.110, respectively, both of which are positive, indicating greater financial performance.

A diagnostic test was performed, and the results are summarized here. The results of the Durbin Watson independence test in both periods were in the range of 1.5 and 2.5, showing that the data exhibits no first order linear autocorrelation. The ANOVA linearity test yielded a p value greater than 5, indicating that the entire variable has a linear connection. The multicollinearity test findings showed a VIF factor of less than 5 in both periods, indicating that there was no multicollinearity among the variables. The heteroscedasticity test resulted in a p value larger than 5, indicating that there was no indication of heteroscedasticity in the data in both periods. The Kolmogorov-Smirnov and Shapiro-Wilk (1965) normality tests were used, and the results show that the data is normally distributed because the P value is greater than 5 in both periods.

According to the correlation studies, operational efficiency is highly positively associated to financial performance. The positive association indicates that improving operational efficiency leads to improved financial success as measured by ROA. Market share suggests that there is a negligible positive association between ROA and market share. This implies that as market share grows, so does the ROA, but with a lower margin. The size of the firm correlates significantly with financial performance as assessed by ROA. This means that when the firm's size grows, so does the return on assets, and vice versa. Credit risk management is inversely related to financial performance as measured by ROA. This means that if credit risk rises, so does financial performance, and vice versa. Liquidity risk management is inversely related to financial performance as assessed by ROA. This means that if liquidity risk rises, so will financial performance, and vice versa.



## CHAPTER FIVE: HYPOTHESIS TESTING AND DISCUSSION OF FINDINGS

### 5.1 Introduction

The chapter begins with a discussion of the four null hypotheses under the study and their interpretation. The chapter concluded with a review of the results for each null hypothesis investigated.

### 5.2 Mergers and acquisitions and financial performance among commercial banks in Kenya.

The study's primary goal was to examine the effect of mergers, acquisitions, and financial performance among Commercial banks in Kenya. T-test and multiple regressions were used to test the hypothesis one. This was presented by the first hypothesis stated as follows.

*H1: There is no significant relationship between mergers and acquisitions on financial performance among commercial banks in Kenya.*

The table 18 below present results for the mean average financial performance during pre and post mergers and acquisitions

**Table 18 Result for t-test on average financial performance during pre and post mergers and acquisitions**

t-Test: Two-Sample Assuming Unequal Variances					
	<i>Pre-merger mean</i>	<i>post-merger means</i>	<i>Mean difference</i>	<i>t-value</i>	<i>p-value</i>
ROA	.422	.706	.284	1.651	.036

**Source: Research findings (2022)**

Table 18 compares the financial performance during pre and post mergers and acquisitions using return on assets as the indicator. The results show a p-value of 0.036, which is less than the threshold of 0.05 and therefore statistically significant. From the

findings, it can be concluded that, after the mergers and acquisitions, the financial performance improved and hence rejection of the first null hypothesis.

Table 19 and 20 below presents a multiple regression used to test hypothesis one.

**Table 19 pre-mergers and acquisitions and financial performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.069 <sup>a</sup>	.005	.006	.222		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.042	2	.021	.429	.652 <sup>b</sup>
	Residual	8.854	180	.049		
	Total	8.897	182			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.351	.327		1.074	.284
	Operational efficiency pre-merger	.055	.062	.067	.898	.371
	Market shares pre-merger	.044	.214	.015	.203	.839

a. Dependent Variable: ROA pre-merger

**Source: Research finding (2022)**

The coefficient of determination ( $R^2=0.005$ ) as per table 19 above infers that 0.5% of financial performance is explained by mergers and acquisitions. The remaining 99.5% can be attributed to other factors other than the one discussed in this study, which suggests that the model can be improved by adding new variables.

The ANOVA shows that the regression sum square is 0.042 and a model residual of 8.854 with a mean square of 0.021 for the regression and 0.049 for the residual. The

model shows  $F=0.429$  and  $P=0.652>0.05$ , which infers that the relationship between independent and dependent variables are not statistically significant.

The regression coefficient shows that operational efficiency has a p value of more than 0.05 implying that it does not significantly influences financial performance of commercial banks ( $p=0.371<0.05$ ). Market share had a p-value of greater than five indicating that, it does not significantly influence the financial performance of commercial banks ( $p=0.839>0.05$ ).

**Table 20: post-mergers and acquisitions and financial performance**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.266	.071	.048	.117		
<b>ANOVA</b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.087	2	.044	3.186	.041
	Residual	1.150	84	.014		
	Total	1.237	86			
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.775	.264		2.933	.004
	Operational efficiency Post Merger	.060	.025	.249	2.362	.020
	Market share Post Merger	-.125	.167	-.079	-.753	.454
a. Dependent Variable: ROA Post Merger						

**Source: Research finding (2022)**

The coefficient of determination ( $R^2=0.071$ ) as per the table 20 above which infers that 7.1% of financial performance is explained by mergers and acquisitions. The

remaining 92.9% can be attributed to other factors other than the one discussed in this study, which suggests that; the model can be improved by adding new variables.

The ANOVA shows that the regression sum square is 0.087 and a model residual of 1.150 with a mean square of 0.044 for the regression and 0.014. The model shows  $F=3.186$  and  $P=0.041<0.05$ , which infers that relationship between independent and dependent variables are statistically significant.

The regression coefficient shows that operational efficiency has a p value of less 0.05 implying that it significantly influences financial performance of commercial banks ( $p=0.020<0.05$ ). Market share had a p-value of greater than five indicating that, it does not significantly influence the financial performance of commercial banks ( $p=0.454>0.05$ ). The t –value is greater than 2 i.e.,  $t=2.362$  which signifies the model’s predicative confidence and reliability.

Thus, the model highlighted below was adopted for the first hypothesis of the current study.

$$ROA_{it} = 0.775 + 0.06OF_i + \epsilon_i$$

Where

ROA=Return on asset

OF=Operational efficiency

The constant 0.775 indicates that, if there is no operational efficiency, return on asset is 0.775 units. The beta coefficient of operational efficiency of 0.06 indicates that when the operational efficiency increases by 1%, return on asset increases by 0.06 units.

### **5.3 Mergers and acquisitions, institutional characteristics, and financial performance among commercial banks in Kenya**

The second goal was to investigate the moderating role of institutional characteristics in the connection between mergers and acquisitions and financial performance among commercial banks in Kenya. The proposition under evaluation was formulated as follows:

***H<sub>2</sub>: There is no significant moderating roles of institutional characteristics on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.***

The null hypothesis was tested using a stepwise method as proposed by Baron and Kenny (1986).

### **5.3.1 Step one of moderation**

Step 1 entailed assessing the direct association between the dependent and independent variables, and hence regression of mergers and acquisitions and institutional characteristics as the (independent) variables against financial performance (dependent)

**Table 21: Mergers and acquisitions, institutional characteristics, and financial performance**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
	.276	.076	.043	.002		
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.095	3	.032	2.289	.004
	Residual	1.143	83	.014		
	Total	1.237	86			
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.681	.295		2.311	.023
	Operational efficiency Post Merger	.056	.026	.236	2.198	.031
	Market share Post Merger	-.098	.171	-.062	-.574	.568
	Firm's size	.014	.019	.080	.728	.468
a. Dependent Variable: ROA Post Merger						

**Source: Research findings (2022)**

Table 21 shows regression result of mergers and acquisitions and institutional characteristic as (independent variable) against financial performance as the (dependent variable). Results from table 21 reveal that  $R^2=0.076$ ,  $F=2.289$ ,  $P=0.004<0.05$ ) but not moderately significant. The overall model based on F-statistic is significant ( $P<0.05$ ). The results demonstrate that other factors save for size influence the banks financial performance.

### 5.3.2 Step two of moderation

Step 2 involved introducing a product of moderating variable and independent variable (IC\*MA) and regressing against the dependent variable (ROA). The moderation effect is said to be present when the coefficient of the interaction terms is statistically significant.

**Table 22: Mergers and acquisitions, institutional characteristics, interaction terms financial performance**

Model summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.280 <sup>a</sup>	.078	.021	.118		
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.097	5	.019	1.373	.243 <sup>b</sup>
	Residual	1.141	81	.014		
	Total	1.237	86			
Regression coefficient						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.113	2.175		-.052	.959
	Operational efficiency Post Merger	.051	.196	.211	.259	.797
	Market share Post Merger	.428	1.376	.271	.311	.757
	Firm's size	.201	.504	1.144	.399	.691
	Firm size*operational efficiency	.001	.043	.035	4.033	.003
	Firm size*market share	-.124	.321	-1.060	-.386	.701

a. Dependent Variable: ROA Post Merger

**Source: Research findings (2022)**

Table 22 reveals that only operational efficiency interacted with firm size has a moderating role on the association among mergers and acquisitions and financial performance of

commercial banks ( $P=0.003 < 0.05$ ). The result of the regression lead to the rejection of the second null hypothesis. The model for moderating variable was adopted for moderation.

$$\text{ROA} = 0.001 + 0.003\text{OFFS}$$

Where;

OFFS= Interaction of operational efficiency and firm size

The constant 0.001 indicates that if there is no operational efficiency and institutional characteristics, return on asset is 0.001 units. Interaction of operational efficiency and firm size increases the return on asset by 0.003 units.

#### **5.4 Mergers and acquisitions risk management Financial Performance**

The third goal was to investigate the mediating role of risk management on the connection among mergers and acquisition and financial performance in Kenyan commercial banks. Baron and Kenny (1986) employ four stages to investigate the intervening influence of the intervening variable on the association among the predictor and outcome variables. In the study, these procedures were followed. Regression analysis was used in stage one of the interventions to examine the association among financial performance (the outcome variable) and mergers and acquisition (the predictor variable), while the intervening variable was ignored (risk management).

The second stage of the intervening model involved performing a regression analysis to examine the association among risk management (the intervening variable), mergers, and acquisitions (the predictor variable), while ignoring the outcome variable (bank financial performance). The third step of the intervention was to conduct a regression analysis to examine the relationship between risk management (intervening variable) and bank performance (outcome variable), while ignoring the predictor variable (mergers and



acquisition). The fourth component of the intervention study involved assessing the association among financial performance (the outcome variable), risk management (the intervening variable), and merger and acquisition (predictor variable).

For an intervention effect to be considered positive, four conditions must be met, according to Baron and Kenny's (1986) methodology. First, in the absence of an intervening variable, there must be a meaningful link between the predictor variable and the dependent variable. Second, there must be a meaningful relationship between the predictor and intervening variables. Third, the intervening variable and the dependent variable must have a meaningful relationship. Fourth, after evaluating the effects of the intervening variable on the outcome variable, the effect of the predictor variable on the outcome variable becomes unimportant.

The researcher investigated the effects of commercial bank financial performance (as measured by return on asset (ROA)), mergers and acquisition (as measured by operational efficiency, managerial efficiency, and market share), and mergers and acquisition (as measured by operational efficiency, managerial efficiency, and market share) (as measured by operational efficiency, managerial efficiency, and market share). The intervening variable (Risk Management) was calculated using non-performing loans (Credit Risk Management) and the liquidity ratio (Liquidity Risk Management). The following is the null hypothesis 3:

***H<sub>3</sub>: There is no significant intervening role of risk management on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.***

#### **5.4.1 Step One of Testing the Intervening Effect: Effect of Independent Variable on**

## Dependent Variable

Mergers and acquisitions were regressed against the financial performance of commercial banks while ignoring risk management. The results are as presented in the below table 23. The model should be significant for the next step to be activated ( $p < 0.05$ ).

**Table 23: Regression result for mergers and acquisitions as the independent variable and financial performance of commercial banks as the dependent variable**

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.266 <sup>a</sup>	.071			.048	
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.087	2	.044	3.186	.041 <sup>b</sup>
	Residual	1.150	84	.014		
	Total	1.237	86			
Coefficient of regression						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.775	.264		2.933	.004
	Operational efficiency Post Merger	.060	.025	.249	2.362	.002
	Market share Post Merger	-.125	.167	-.079	-.753	.454

a. Dependent Variable: ROA Post Merger

### Source: Research findings (2022)

Table 23 reveals that mergers and acquisitions as proxied by operational efficiency is statistically significant to financial performance ( $p = 0.002 < 0.05$ ).

The findings of this research indicate that, except for market share, commercial banks' mergers and acquisitions are positively associated to the financial success of the institutions in question.

The analytical model which was:  $ROA_i = \beta_0 + \beta_1 OF + \beta_2 MS + \epsilon_i$  is

Therefore, specified as:

$$ROA_i = 0.775 + 0.060OF - 0.125MS + \epsilon_i$$

$ROA_i$  stands for return on asset,  $OF_i$  for operational efficiency,  $MS_i$  for market share, and  $\epsilon_i$  for an error term. Below is the simplified regression model after elimination of insignificant factors:

$$ROA_i = 0.775 + 0.060OF + \epsilon_i$$

#### **5.4.2 Step Two of Testing the Intervening Effect: Estimate Effect of Independent Variable (mergers and acquisitions) on Intervening Variable (risk management)**

Step 2 involved testing the effect of the independent variables on their corresponding intervening variables. The effects of operational efficiency and market share to Liquidity risk ratio and non-performing ratio were tested. P value should be equal to or less than 5 for one to proceed to the next step.

**Table 24: Regression result with Liquidity risk management as the dependent variable and operational efficiency as the independent variable**

<b>Model summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.132 <sup>a</sup>	.017	.006	.083		
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.011	1	.011	1.507	.223 <sup>b</sup>
	Residual	.594	85	.007		
	Total	.605	86			
<b>Regression coefficient</b>						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.249	.039		32.413	.000
	Operational efficiency Post Merger	-.022	.018	-.132	-1.228	.223
a. Dependent Variable: Liquidity risk management						

**Source: Research finding (2022)**

The results presented in Table 24 show that operational efficiency is not statistically significant predictor of liquidity risk management ( $p=0.223>0.05$ ).

**Table 25: Regression result with Liquidity risk management as the dependent variable and market share as the independent variable**

<b>Model summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.006 <sup>a</sup>	.000	-.012	.084		
<b>Goodness of fit</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.003	.959 <sup>b</sup>
	Residual	.605	85	.007		
	Total	.605	86			
<b>Regression analysis</b>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.213	.184		6.587	.000
	Market share Post Merger	-.006	.120	-.006	-.052	.959
a. Dependent Variable: Liquidity risk management						

**Source: Research findings (2022)**

From the results in Table 25, market share is an insignificant predictor of liquidity risk management ( $P=0.959>0.05$ ).

**Table 26: Regression result with credit risk management as the dependent variable and operational efficiency as the independent variable**

<b>Model summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.216 <sup>a</sup>	.047	.036	.082		
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.029	1	.029	4.166	.044 <sup>b</sup>
	Residual	.582	85	.007		
	Total	.610	86			
<b>Regression coefficient</b>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.223	.038		5.850	.000
	Operational efficiency Post Merger	-.036	.018	-.216	-2.041	.044
a. Dependent Variable: Credit risk management						

**Source: Research findings (2022)**

From the results in Table 26, operational efficiency is a significant predictor of credit risk management ( $P=0.044 < 0.05$ ).

**Table 27: Regression result with credit risk management as the dependent variable and market share as the independent variable**

<b>Model summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.084 <sup>a</sup>	.007	-.005	.084		
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.004	1	.004	.601	.441 <sup>b</sup>
	Residual	.606	85	.007		
	Total	.610	86			
<b>Regression coefficient</b>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.005	.184		.026	.980
	Market share Post Merger	.093	.120	.084	.775	.441
a. Dependent Variable: Credit risk management						

**Source: Research findings (2022)**

From the results in Table 27, market share is an insignificant predictor of credit risk management ( $P=0.441>0.05$ ).

**Table 28: Summaries of Results of Intervention Assessment Steps One and Two**

	<b>Step 1</b>	<b>Intervening variables</b>	<b>Step 2</b>	<b>Step 3</b>
<b>Mergers and acquisition</b>	*	<b>Risk management</b>	**	***
Operational efficiency	Yes	Liquidity risk management	No	No
Market share	No	Liquidity risk management	No	No
Operational efficiency	Yes	Credit risk management	Yes	Yes
Market share	No	Credit risk management	No	No

\* - Is mergers and acquisitions a significant predictor of financial performance?

\*\* - Is mergers and acquisitions a significant predictor of risk management?

\*\*\*-mergers and acquisitions and risk management to be considered further?

Table 28 above summarizes the results of the intervention assessment. The findings indicate that only operational efficiency affects the intervening.

### 5.4.3 Step Three of Testing the Intervening Effect: Estimate Effect of intervening Variable (risk management) on dependent Variable (Financial performance)

Step 3 involved testing the effect of the intervening variables on dependents variables. The effects of credit risk and liquidity risk management were tested. The intervening and dependents variables should be related ( $p < 0.05$ ).

**Table 29: Regression result with credit risk management as the independent variable and financial performances the dependent variable**

<b>Model summary</b>									
		Change Statistics							
Model	R	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	
1	.086 <sup>a</sup>	.007	.120	.007	.641	1	85	.426	
<b>ANOVA</b>									
Model	Sum of Squares			Df	Mean Square	F	Sig.		
1	Regression			.009	1	.009	.641		
	Residual			1.228	85	.014			
	Total			1.237	86				
<b>Regression coefficient</b>									
		Unstandardized Coefficients			Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.			
1	(Constant)	.725	.026		27.782	.000			
	Credit risk management	-.123	.154	-.086	-800	.426			
a. Dependent Variable: ROA Post Merger									

**Source: Research findings (2022)**



Table 29 reveals that the ( $P=0.426>0.05$ ) and therefore credit risk management do not have a significant influence on the financial performance.

Since there is no apparent effect of the intervening variables on the dependent variables, the conclusion is that there is no intervening effect and hence step four is not necessary. It is therefore concluded that risk management has no intervening role in the relationship between mergers and acquisitions and the financial performance of commercial banks and hence the failure to reject the null hypothesis three.

#### **5.5 The joint effect of Mergers and Acquisitions, Risk Management and Institutional Characteristics on Financial Performance of Commercial Banks is not significant.**

The fourth goal of the study was to examine the joint effect of mergers and acquisitions, risk management and institutional characteristics on the financial performance of commercial banks in Kenya.

The null hypothesis was stated as follows.

*H<sub>4</sub>: There is no significant joint relationship of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.*

**Table 30:premergers and acquisitions, risk management, institutional characteristics, and financial performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.217 <sup>a</sup>	.047	.020	.219		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.417	5	.083	1.742	.127 <sup>b</sup>
	Residual	8.479	177	.048		
	Total	8.897	182			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.032	.462		.069	.945
	Operational efficiency pre-merger	.064	.066	.078	.978	.330
	Market shares pre-merger	.116	.214	.040	.543	.588
	Firm's size pre-merger	.039	.031	.105	1.268	.206
	Credit risk management pre-merger	-.467	.243	-.177	-1.923	.056
	Liquidity risk management pre-merger	.108	.223	.043	.483	.630
Dependent Variable: ROA pre-merger						
<b>Research finding (2022)</b>						

The finding indicates that, overall, the variables failed to predict the financial performance of commercial banks ( $P > 0.000$ ). The conclusion from the finding is jointly the variables did not have a significant influence on the financial performance of commercial banks before mergers and acquisitions.

**Table 31: post-mergers and acquisitions, risk management, institutional characteristics, and financial performance**

<b>Model summary</b>									
					Change Statistics				
Model	R	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	
1	.277 <sup>a</sup>	.077	.118	.077	1.351	5	81	.000	
<b>ANOVA</b>									
Model			Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression		.095	5	.019	1.351	.000		
	Residual		1.142	81	.014				
	Total		1.237	86					
<b>Regression coefficient</b>									
		Unstandardized Coefficients			Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.			
1	(Constant)	.645	.379		1.703	.092			
	Operational efficiency Post Merger	.056	.026	.233	2.108	.038			
	Market share Post Merger	-.095	.174	-.060	-.546	.586			
	Firm's size	.014	.020	.079	.700	.486			
	Credit risk management	-.040	.186	-.028	-.215	.830			
	Liquidity risk management	.032	.183	.022	.175	.861			

a. Dependent Variable: ROA Post Merger

**Source: Research findings (2022)**

The finding indicates that, overall, the variables predicted the financial performance of commercial banks (P=0.000). Regression coefficient indicated that, only operational efficiency was a significant predictor of financial performance (P=0.038<0.05). The conclusion for the finding is thus, jointly all the variables were statistically significant at 5% level of significance, hence the failure null hypothesis. It is therefore concluded that mergers and acquisition, risk management, institutional characteristics jointly have a

significant influence on the commercial bank's financial performance.

The joint regression model:  $ROA = \beta_0 + \beta_1 OF + \beta_2 MS + \beta_3 CRM + \beta_4 LRM + \beta_5 BS + \epsilon_i$  can be summarized as.

$$ROA = 0.645 + 0.056OF - 0.095 + 0.14 FS - 0.040CRM + 0.032LRM + \epsilon_i$$

Were.

ROA=Return on asset

OF=Operational efficiency

MS=Market share

CRM=Credit risk management

LRM=Liquidity risk management

FS=Firm size

## 5.6 Summary of research findings

This section presents a summary of research findings on the hypotheses tested. The summary results of all the hypotheses tested are presented in Table 32

**Table 32: Summary result of hypothesis testing**

Objective	Hypothesis	Findings	Decision
<b>Objective one</b> To establish the effect of mergers and acquisitions on financial performance of commercial banks in Kenya	There is no significant relationship between mergers and acquisitions and the financial performance of commercial banks in Kenya.	There is a statistically significant effect of mergers and acquisitions on financial performance of commercial banks in Kenya.	Null hypothesis rejected

<p><b>Objective two</b> To determine the effect of institutional characteristics on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya</p>	<p>There are no significant moderating roles of institutional characteristics on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya are not significant.</p>	<p>There is a significant moderating role of institutional characteristics on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya.</p>	<p>Null hypothesis rejected</p>
<p><b>Objective three</b> To investigate the mediating role of risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya</p>	<p>There is no significant mediating role risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya are not significant.</p>	<p>There is no significant mediating role of risk management on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya.</p>	<p>Fail to reject null hypothesis</p>
<p><b>Objective four</b> To examine the joint effect of mergers and acquisitions, risk management and institutional characteristics on financial performance of commercial banks in Kenya.</p>	<p>There is no significant joint relationship of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.</p>	<p>There is a significant joint effect of mergers and acquisitions, risk management and institutional characteristics on financial performance of commercial banks in Kenya.</p>	<p>Null hypothesis rejected</p>

**Source: Researcher 2022**

## **5.6 Discussion of the Hypotheses Tests and Research Findings**

The study's overarching goal was to examine the effect of mergers and acquisitions, risk management, institutional characteristics, and financial performance of commercial banks in Kenya. This section discusses the findings from the hypothesis testing. A summary of the research findings is presented at the end.

### **5.6.1 Mergers and acquisitions and financial performance**

The study's first goal was to examine the effect of mergers and acquisitions on the financial performance of commercial banks in Kenya. In this study, two aspects of mergers and acquisitions were used: operational efficiency and market share. Return on assets was used as a financial performance metric. The study's findings were that independent variables did not influence the financial performance of commercial banks before mergers and acquisitions. The study's findings further revealed that operational efficiency had a positive significant influence on financial performance post mergers and acquisitions. Market share was found to have an insignificant effect on the financial performance of commercial banks post mergers and acquisitions.

Sporta et al., 2017 and Natarajan et al., 2013 support the findings of a positive relationship between operational efficiency and financial performance and argue that management should focus on improving operational efficiency for financially distressed banks to improve their financial performance. The study's findings contradict those of Alkhatib and Harsheh (2012), who discovered that operational efficiency has a significant association with financial performance. The statistical insignificance was caused by factors other than operational efficiency that influence financial performance. Buchory (2015) and Oktaviantari (2013) discovered that operational efficiency has a considerable negative effect on ROA. Other inefficiencies, which may result in underutilization of the bank's assets, are the cause of the poor financial performance.

According to the study, market share has a positive but insignificant link with financial performance as assessed by return on assets (ROA). The study's conclusions contradict those of Fazlzadeh and Sabbaghi (2010) and Varadajaran (1993), who found that market

share had no substantial direct association with financial performance. Other factors attenuate the relationship between market share and financial performance, which explains the insignificant relationship. Other research based on this study's findings includes Buzzell (2004), who discovered that market share outcomes had a considerable favorable effect on financial success. This is because a rise in market share leads to an increase in market power, which allows the company to demand industrial margins.

### **5.6.2 Mergers and acquisitions ,firm size and financial performance among commercial banks in Kenya**

The study's second objective was to examine the moderating effect of institutional factors on the link between mergers and acquisitions and financial performance across Kenyan commercial banks. According to the hypothesis, there is no significant moderating role of institutional characteristics on the link between mergers and acquisitions and financial performance of commercial banks in Kenya. The indicator of institutional characteristics used in this study was the bank size.

The study results were such that the financial performance of commercial banks was significantly influenced by operational efficiency. Market share and the bank size had an insignificant influence on the financial performance of commercial banks. The interactions of bank size and operational efficiency had a positive significant influence on financial performance. This is an indication that operational efficiency and bank size are significant predictors of financial performance when combined.

Maja and Josipa (2012) discovered a similar outcome to the study, namely that size is insignificantly positively connected to financial performance. Eyigege (2018) discovered that size has a negative significant association with financial performance, which

contradicts the findings of this study. According to Hossain and Saif (2019), there is a negative association between size and financial performance. The conclusions were since size can contribute to diseconomies of scale, and hence enterprises should strive to minimize the expense of expansion to benefit from economies of scale. Niresh and Thirunavukkarasu (2014) discovered that size has no effect on financial health; that is, the two are unrelated.

### **5.6.3 Mergers and acquisitions ,risk management and financial performance commercial banks in Kenya**

The third goal of the study was to investigate the mediating role of risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya. The hypothesis underpinning this goal was that the intervening role of risk management in the relationship between mergers and acquisitions and financial of commercial banks in Kenya was not significant. Credit risk management and liquidity risk management were employed as risk management indicators. Credit risk was quantified using the non-performing loan ratio, whereas liquidity risk was measured using a ratio between current assets and current liabilities.

According to the findings, operational efficiency predicted credit risk since an increase in operational efficiency enhances the amount of credit risk and vice versa. Operational efficiency had no effect on the amount of liquidity risk, implying that the connection is influenced by factors other than those studied. The levels of liquidity risk and credit risk were unaffected by market share. Furthermore, credit risk had no effect on financial performance, so step four was skipped.



Mwangi et al. (2020) back up the study's results that liquidity risk management has no effect on financial performance. However, Mogwambo et al. (2019) discovered a substantial positive association between liquidity risk management and financial performance. This is because it is theoretically believed that if liquidity risk is adequately managed, financial performance will increase because of cost management from external financing of short-term obligations and other exposures such as reputational risk. Otieno (2020) discovered a negative association between liquidity risk management and financial performance in his study. This is because an increase in customer deposits without an increase in loan uptake will worsen the current ratio.

It was discovered that credit risk has a positive but insignificant link with financial performance. Mwangi et al., 2020 found that credit risk had a positive but negligible association with financial performance, which supports this finding. However, the findings contradicted those of Nyagol and Otieno (2016), who discovered that credit risk management had a strong negative association with financial success. The conclusions were because when credit risk rises, so does the number of non-performing loans, which raises loan provisions and has a negative impact on financial performance.

#### **5.6.4 Mergers and acquisitions, risk management, Institutional characteristics, and financial performance**

The study's fourth goal was to investigate the joint effect of mergers and acquisitions, risk management, and institutional characteristics on financial performance of commercial bank in Kenya. The hypothesis of the study was that the combined effect of mergers and acquisitions, risk management, and institutional characteristics on financial performance of commercial banks not significant.

The study's findings were such that, before mergers and acquisitions, jointly the variables did not significantly influence the financial performance of commercial banks. Further, the study findings revealed that jointly the variables influenced the financial performance of commercial banks post mergers and acquisitions. Operational efficiency has a significant effect on financial performance. The findings led to the rejection of the fourth null hypothesis.

In their study, Gomez et al. (2010) discovered that mergers and acquisitions boost operational efficiency, as indicated by an increase in productivity following the transaction. According to Oman (2009), mergers and acquisitions boost operational efficiency as well as market share, which lead to greater financial performance.

Ayoush et al., 2020, for example, discovered that mergers and acquisitions had no statistically significant impact on financial performance. The observation could be the result of insufficient integration or an inflated aim. Other factors that were not considered in the model could potentially play a role. Muiru et al. (2014) discovered the same thing, finding no significant difference between the means of financial performance of commercial banks before and after mergers and acquisitions.

## **CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

### **6.1 Introduction**

The chapter summarizes the conclusions of the four hypotheses examined in this study. For each research hypothesis, this chapter contains a description of descriptive statistical findings, conclusions made from these data, study contributions, and policy recommendations. The chapter also covers the study's limitations as well as future research opportunities.

The study endeavoured to investigate the relationship among mergers and acquisitions, risk management, institutional characteristics, and financial performance of commercial banks in Kenya. The independent variable was mergers and acquisitions with operational efficiency and market share as the indicators. The intervening variable was risk management with credit risk management and liquidity risk as the indicators. Institutional characteristics were the moderating variable with size as the indicator and the financial performance was the dependent variable with return on asset as the indicator.

The study's objectives were: First was to establish the effect of mergers and acquisitions on financial performance among commercial banks in Kenya. Second was to determine the effect of institutional characteristics on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya. Third was to investigate the effect of risk management on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya. Fourth was to examine the joint effect of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya.

## 6.2 Summary

The study's goal was to evaluate the effect mergers and acquisitions, risk management and institutional characteristics on the financial performance of commercial banks in Kenya. The variables studied were mergers and acquisitions, with operational efficiency and market share as the indicator and hence the independent variables. The mediating variable was risk management with credit risk management and liquidity risk management as the indicators. Institutional characteristic was the moderating variable with bank size as the indicator. The dependent variable was financial performance with Return on Asset (ROA) as the indicator.

The study's goals were achieved with the help of synergies theory, which supports the premise that when organizations combine, financial, operational, and management synergies are derived. The value calculated from the united firms is  $2+2=5$ . Resource-based theory hypothesis that, enterprises achieve a competitive advantage through the endowment of homogeneous resources. Through mergers and acquisitions, companies can increase their financial performance by tapping into homogeneous resources. The study is supported by agency theory in the sense that managers seek to use free cash flow for their own profit at the expense of the shareholder. Shareholders can consider mergers and acquisitions as a solution to agency difficulties by leveraging excess cash flows. Concentration theory also supports the study's claim that fewer large enterprises are better managed than many small firms.

Positivism research philosophy supported this study as it involved quantitative analysis. The study used quantitative data collected over time to analyses the relationship among the study variables and hence correlational descriptive research design was deemed

appropriate for the study. The population of the study comprised of the 30 commercial banks in Kenya that had considered mergers and acquisitions by the year 2017. Secondary data from publicly available financial statements was used in the analysis. The collected data was subjected to linearity test, independence test, multi collinearity test, heteroscedasticity test, and normality test to establish compliance with linear-regression assumptions. The following descriptive statistics were employed in the investigation: mean, standard deviation, minimum, maximum, standard error of estimation, Skewness, and kurtosis. Multiple regressions were employed to define the statistical relationship between the study variables, while Baron and Kenny's (1986) stepwise method were used to ascertain the moderating and intervening role.

The first objective of the study was to investigate the influence of mergers and acquisitions on the financial performance of commercial banks in Kenya. According to the study's findings, operational efficiency had a statistically significant and positive influence on the financial performance of commercial banks. The finding is further cemented by the coefficient of 0.253 between operational efficiency and the financial performance leading to the deduction that operational efficiency explains the variations in the financial performance. The observation is, however, contradictory before mergers and acquisitions where the coefficient was 0.067, which leads to the deduction that mergers and acquisitions results in improvement of financial performance. This indicates that increasing operational efficiency results in improved financial performance. Market share had just an insignificant positive influence on the financial performance. The coefficient of 0.017 before mergers and acquisitions and -0.094, which cements that market share, is an insignificant predictor of financial performance. Because of the diseconomies of scale

associated with larger firms, gaining market share may not result in an increase in financial performance. The overall statically significant positive relationship between mergers and acquisitions and financial performance lead to the rejection of the null hypothesis, that mergers and acquisitions has no significant relationship with the financial performance of commercial banks in Kenya.

The study result that mergers and acquisitions have a significant relationship with financial performance is consistent with other study results. Bhargave, H; Tandon, D, 2022 found that the financial performance of commercial banks in india improved after M&A as evidenced by improved banking efficiency and reduction of losses. Dhurba, 2021 in their investigation found that, the efficiency and the performance of the commercial banks improved after the M&A in Durban. The inconsistent in the findings could be as a result of application of different methodologies and assumptions, contextual and conceptual variations.

The study result that mergers and acquisitions have a significant relationship with the financial performance is inconsistent with other study results. Putri & Mulyana, 2022 and Ansari et al, 2021 found that, the financial performance of PK. bank in Indonesia as measured using return on asset and return on equity among other ratios remained the same during and after M&A. Ćiković, Lozić, & Guzovski, 2022 found that the efficiency of the bank as measured using DEA decreased after M&A. George, Wei, & Nneka, 2021 found that M&A did not had a significant effect on return on asset and return on equity in commercial banks in Ghana.

The second goal was to look at the moderating role of institutional characteristics on the association among mergers and acquisitions and the financial performance of commercial

banks in Kenya. To determine the hypothesized link, the researcher utilized Baron and Kenny's (1986) recommended technique, which looked at mergers and acquisitions indicator separately. The research findings were that operational efficiency interacted with bank size influenced financial performance. According to the findings of this study, the researcher rejected the null hypothesis, implying that size significantly moderates the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya.

The study results show that bank size moderates the relationship between mergers and acquisitions and the financial performance is consistent with other study results. Meshack et al,2022 in their investigation found that,firm size had a statistiacly significant moderating role on the relationship between capital structure and financial performance in Kenya. The findings is also similar to those of Corvino et al,2019 found that firm moderates the relationships between capital and financial performance in Europe. The reasoning behind the moderation is such that,large firms are able to enjoy economies of scale and hence able to achieve competetive advantage and better financial performance.

The study results show that bank size moderates the relationship between mergers and acquisitions and the financial performance is inconsistent with other study results. An example of a study whose findings were that firm size do not moderate the relationship between independent and dependent variable are those of (Ssendagire, 2020). The researcher found that,firm size has no moderating role on the relationship between working capital and profitability of manufacturing firms.Similary, Ali et al, 2016 found that,firm size do not influence the relationship between management partciaption and financial performance.

The third goal was to investigate the mediating role of risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya. The goal was achieved through a step-by-step approach in which the independent variable in step 1 was regressed against the independent variable in step 2, and thus operational efficiency was found to be statistically significant with financial performance while market share was found to be statistically insignificant. In step II, the independent variable was regressed against the intervening variable, and operational efficiency was found to be statistically significant with credit risk and liquidity risk management. Step III entailed regressing intervening variables against financial performance, and credit and liquidity risk management were shown to be statistically insignificant, implying that step IV was unnecessary. As a result, the researcher failed to reject null hypothesis, implying that the intervening role of risk management on the relationship between mergers and acquisitions and financial performance among commercial banks in Kenya are not significant.

The study result is like those of Yahaya, Mahat, & Matemilola, 2022, whose findings were such that, liquidity risk management and credit risk management had a negative relationship with the financial performance of commercial banks. Yulianto, 2022 found that credit risk management and liquidity risk management do not have a significant influence on the financial performance of commercial banks.

The fourth objective was to investigate the joint effect of mergers and acquisitions, risk management, and institutional characteristics on the financial performance of commercial banks in Kenya. The findings were such that, jointly, the variables did not significantly predict the financial performance during pre-mergers and acquisitions. Further, the study findings indicated that, jointly, the variables predicted the financial performance post



mergers and acquisitions. The findings led to the rejection of the null hypothesis and the conclusion that mergers and acquisitions, risk management, and institutional characteristics all had a significant positive relationship with financial performance of commercial banks in Kenya.

Similar study with consistent results included those of Babalola& akeji, 2021 whose findings were that, M&A influence financial performance, but other factors need to be incorporated like the moderating and intervening variables. Khan et al, 2017 found results which were inconsistent to the result of these result. In their investigation, they found that ,there was no effect of financial performance after mergers and acquisitions for non-financial sector in Pakistan. Further , Abbas et al., 2014 found that, there is insignificant influence of M&A on financial performance among commercial banks in Pakistan.

### **6.3 Conclusions**

The conclusion of this study is based on the study objectives and the results of the hypothesis testing. The first objective was to determine the influence of mergers and acquisitions on the financial performance of commercial banks in Kenya. Between the two indicators for mergers and acquisitions, operational efficiency was found to have an insignificant positive relationship with financial performance before mergers and acquisitions and significant positive relationship with financial performance after mergers and acquisitions. The study findings demonstrates that, mergers and acquisitions may result into enhanced capital base and asset quality, better management of operational cost and enhanced revenues streams which results to improved operational efficiency and by large financial performance. Market share was found to have a positive insignificant influence on the financial performance before and after mergers and acquisition. The

result is that increasing market share improves financial performance, but not as much as operational efficiency. If the bank's purpose is to improve financial performance, it will commit more resources to guaranteeing efficient operations.

The second goal was to determine the moderating role of institutional characteristics on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya. According to the study's findings, the interaction terms of operational efficiency and bank size was found to influence financial performance. This indicates that commercial banks wishing to improve their financial performance should focus on size, i.e., a robust balance sheet combined with better operating efficiency.

The third objective was to investigate the mediating role of risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya. Credit and liquidity risk management, according to the study's findings, have an influence on operational efficiency. This suggests that a lack of operational efficiency can lead to insufficient credit risk management, leading in an increase in non-performing loans and, as a result, an increase in provision for non-performing loans, resulting in worsening financial performance. Similarly, insufficient operational efficiency can result in insufficient liquidity management, leaving the bank unable to service its short-term commitments when they become due. Because liquidity risk management is one of the prudential principles established by the Central Bank of Kenya, the bank may face reputational risk and regulatory scrutiny. Overall, risk management did not have a mediating role in the relationship between mergers and acquisitions and the financial performance of commercial banks.

The fourth objective was to investigate the effects of mergers and acquisitions, risk management, and institutional characteristics on financial performance of commercial banks in Kenya. The study findings revealed that, when the variable is jointly regressed before mergers and acquisitions, they did not have a significant influence on financial performance. Further, the study findings revealed that, when the variables were jointly regressed, post mergers and acquisitions, the overall model showed a significant influence on the financial performance. The findings before and after the mergers and acquisitions lead to the conclusion that, mergers and acquisitions, risk management, institutional characteristics influence financial performance and hence the rejection of the null hypothesis, the joint relationship of mergers and acquisitions, risk management and institutional characteristics on financial performance among commercial banks in Kenya are significant.

#### **6.4 Contribution of the study**

The study's findings and conclusions will help to improve the financial performance of commercial banks in Kenya through mergers and acquisitions, risk management, and institutional characteristics. This section elaborates on the study's contribution to knowledge, regulation, and practice.

##### **6.4.1 Contribution to Knowledge**

The study's outcomes contribute to past research and understanding of the effect of mergers and acquisitions on financial performance of commercial banks. The findings and conclusions of the study bring fresh knowledge and insights to the current body of knowledge on commercial bank mergers and acquisitions. The key contribution to the

corpus of information on subject areas is that mergers and acquisitions, risk management, and institutional characteristics all predict commercial bank financial performance in Kenya. The study results from empirical testing of the variable addresses the question on the contextual and methodology gaps found in this study and so serve as a reference authority for future researchers and academicians.

The second contribution to the body of knowledge is an empirical investigation of institutional factors on the association between mergers and acquisitions and Kenyan commercial bank financial performance. According to the study findings, only operational efficiency predicted financial performance when combined with bank size. This addresses the contextual and methodological gap revealed in this study, in which the studies assessed both locally and internationally and were found to test the direct relationship of independent variable on independent variable.

The third contribution to the body of knowledge is based on empirical assessment of the effect of risk management on the relationship between mergers and acquisitions and Kenyan commercial banks' financial performance. According to the study's findings, operational efficiency has an impact on credit and risk management. However, there was no evidence of risk management influencing financial performance, suggesting that other factors are at work. The conclusion also contributes to filling a methodological and contextual gap found in this study, in which the studies assessed both locally and internationally did not submit themselves to investigate the intervening function of risk management.

The fourth component is concerned with the study findings and conclusions derived from empirical assessment of the joint influence of Mergers and acquisitions, risk management,

and institutional characteristics on Kenyan commercial banks' financial performance. According to the study findings, only operational efficiency strongly predicted commercial bank financial performance. The findings also indicated that the influence of the independent variable could be tempered or mediated by other variables influencing the relationship.

#### **6.4.2 Contributions to Policy**

The outcome of the study is critical to the policy makers in coming up and implementing the policy framework. According to the study's findings, the number of mergers and acquisitions influences the financial performance of commercial banks. This infers that, the regulator should craft frameworks which make mergers and acquisition seamless to the banks which consider them. Other supporting authorities which are involved in the approval process should also be on boarded in making the process friendly. The study also found that, size of the banks influences financial performance. The regulators should encourage mergers and acquisitions which results to larger banks with solid capital base and good financial health.

#### **6.4.3 Contribution to practice**

The findings and conclusions of this study offer very critical solutions to practitioners in the financial sector. The findings that; mergers and acquisitions influence financial performance gives insights to bank leadership and managers who are looking for to enhance compliance, diversification, tax planning, economies of scale and organic growth. The finding that bank's size interacted with operational efficiency strengthens influences financial performance gives insights to the commercial banks management to

allocate more resources on operational efficiency initiatives and well as consider, which increases the bank size such as mergers and acquisitions.

#### **6.4.4 Contribution to Theory**

To test hypotheses and empirically support or falsify theories, the current study was guided by positivist research philosophy. According to the findings, mergers and acquisitions significantly predicts the financial performance of commercial banks in Kenya. This argument is supported by the synergies theory, which asserts that; when two firms combine their value, is such that  $2+2=5$ . Combining two firms results into financial, managerial, and operational synergies which are the ingredient of improved financial performance.

The impact of mergers and acquisitions on financial performance strengthens resource-based view, agency theory and concentration theory. Resource based view theory postulates that, organization achieve a competitive edge through their homogenous resources. Mergers and acquisitions facilitate is the best strategy for an outside organization to tap into these unique resources for them to be competitive. Agency theory provides a mechanism of dealing with agency problem where excess cash flow can be utilized through mergers and acquisitions to create wealth for shareholders. Concentration theory encourages formation of large stable firms, which ultimately gain market power and stand a test of time.

#### **6.5 Recommendations for Policy**

The findings showed that operational efficiency as an indicator for mergers and acquisitions had a positive and significant influence on financial performance of commercial banks in Kenya. This implies that if operational efficiency was to be

improved, then the financial performance would also improve. The study recommends decision makers to come with measures aimed at boosting operational efficiency among commercial banks in Kenya, as this will translate improved financial performance.

The findings showed that the market share as an indicator of mergers and acquisitions had a positive, but insignificant influence on financial performance. This implies that an increase in market share does not result to a proportionate increase in financial performance. This could be because of diseconomies of scale, which may be experienced due to large size and prices wars, which reduce the profitability margins. The study recommends that commercial banks management should approach geared toward increasing their market share with a lot of caution.

The findings of this study showed a positive and significant effect of bank size when interacted with operational efficiency to the financial performance. This means that bank size is an important consideration when it comes to mergers and acquisitions whereby it may strengthen the relationship. The study suggests to management that, for successful mergers and acquisitions, which will result in improved financial performance, bank size and operational efficiency, must go hand in hand.

## **6.6 Limitations of the Study**

The current study limited itself to the year 1995–2017 of which the results could be different with a larger period. The split of the period i.e., three years before mergers, acquisitions, and three years post mergers and acquisition, the period might not be long enough for the benefit of the deal to be realized. The likely hood of short-term effect on

the result cannot be ignored and therefore longitudinal data may be necessary as opposed to the time series data.

The current study has used secondary data, which is historical in nature, and hence it is possible that the results do not accurately reflect the current situation. The absence of any feedback from management is one of the reasons why secondary data presents its own unique set of challenges. The current study looked at the association among mergers and acquisitions and financial performance in Kenya.

The current study only investigated four variables i.e., mergers and acquisitions, risk management, institutional characteristics, and financial performance of commercial banks in Kenya, which is more generalized while there could be other factors, which could influence the financial performance. The indicators of the various variables are also limited and could be expounded to improve on the study findings.

The current study used correlational descriptive research design, which does not demonstrate the causal relationships among the study variables. This study was unable to provide evidence of a causal relationship between risk management and institutional characteristics (the moderating variable), although it did identify a correlation between the two (the intervening variable). However, these findings are helpful because they create the framework for future studies that will indicate there is a causal relationship between the two variables.

### **6.7 Suggestions for Further Research**

Considering this limitation, a longer study length would be the one that is the most appropriate choice (five years or more). There was an excessive dependence on



secondary sources, most of which are likely to be out of date by the time the study was finished because of the excessive use of secondary sources. Therefore, it is feasible that carrying out a comparable study utilizing primary data, or a combination of primary and secondary data is just not viable.

The perspectives of management on how mergers and acquisitions have affected financial performance will be incorporated as an integral element of the process of primary data collection. Although the focus of this study is on commercial banks in Kenya, it could very simply be expanded to include data from other businesses in Kenya such as the insurance, industrial, pharmaceutical, and other sectors. Students and academics from East African nations who are interested in pursuing careers in the academic world would gain a significant amount from a trip to the region.

The current study concentrated on the four study variables. Additional study is required on the wide range of macroeconomic and microeconomic factors that regulate and interact with the model. This research is needed since there is a gap in the current body of knowledge. Because risk management was unable to influence the connection between mergers and acquisitions, it is required to do additional research into other variables. Since there does not seem to be a size-specific moderating effect, other factors that might play a more substantial role should be studied because there is no indication that there is such an effect.

The current study used correlational descriptive research design, which with time series data, failed to, shows causality among the study variables. Future study with longitudinal data and showing causality amongst the study variables is recommended. The study had

only one dependent variable with significant influence on the financial performance and a study with varied independent variable is recommended.

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## APPENDICES

### Appendix 1: Data collection instrument

	Period	Bank	Net income	Total expenses	Total revenue	Aggregate bank's asset	Total loans and advances	Non –performing loans	Current assets	Current liabilities
Before-M&A										
Bank 1	Yr. 1									
	Yr. 2									
	Yr. 3									
Before-M&A										
Bank 2	Yr. 1									
	Yr. 2									
	Yr. 3									
After M&A	Yr. 1									
Combined bank	Yr. 2									
	Yr. 3									

## Appendix II: Research data and population

Period	Phase	Bank Name	Net income (Ksh "m")	Total asset (Ksh "m")	Total expenses (Ksh "m")	Total revenue (Ksh "m")	Aggregate bank's assets (Ksh "m")	Total loans (Ksh "m")	Non-performing loans (Ksh "m")	Current asset (Ksh "m")	Current liabilities (Ksh "m")
Year 1	Before M&A	Habib Bank Kenya Limited	532	9,449	253	946	3,199,396	4,707	342	9,393	7,507
Year 2	Before M&A	Habib Bank Kenya Limited	485	10,230	346	1,061	3,492,643	4,271	434	10,069	8,083
Year 3	Before M&A	Habib Bank Kenya Limited	493	12,508	341	1,211	3,695,943	4,339	816	12,344	10,054
Year 1	Before M&A	Diamond Trust Bank Limited	6,307	141,176	4,638	10,945	3,199,396	95,258	1,199	136,279	115,391
Year 2	Before M&A	Diamond Trust Bank Limited	7,055	190,948	4,665	13,277	3,492,643	128,266	3,656	185,521	160,952
Year 3	Before M&A	Diamond Trust Bank Limited	8,876	244,124	5,175	16,859	3,695,943	141,702	5,520	236,808	207,692
Year 1	After M&A	Diamond Trust Bank Limited	9,264	281,515	7,997	17,262	4,408,593	152,287	11,036	274,383	233,803
Year 2	After M&A	Diamond Trust Bank Limited	9,279	287,250	6,685	15,964	4,809,410	155,307	12,892	279,351	235,249
Year 3	After M&A	Diamond Trust Bank Limited	3,492	312,189	12,209	16,151	5,405,746	165,948	19,747	302,921	258,157
Year 1	Before M&A	Fidelity Commercial bank	316	12,779	491	222	2,703,394	36,420	730	7,302	7,246

Year 2	Before M&A	Fidelity Commercial bank	298	16,515	545	246	3,199,396	40,467	811	8,113	8,051
Year 3	Before M&A	Fidelity Commercial bank	(277)	15,025	606	274	3,492,643	10,037	1,604	9,014	8,945
Year 1	Before M&A	SBM Bank Kenya Limited	316	12,779	491	222	2,703,394	36,420	730	7,302	7,246
Year 2	Before M&A	SBM Bank Kenya Limited	298	16,515	545	246	3,199,396	40,467	811	8,113	8,051
Year 3	Before M&A	SBM Bank Kenya Limited	(277)	15,025	606	274	3,492,643	10,037	1,604	9,014	8,945
Year 1	After M&A	SBM Bank Kenya Limited	(361)	11,533	673	304	4,002,741	6,680	3,917	10,016	9,939
Year 2	After M&A	SBM Bank Kenya Limited	955	70,654	2,287	4,225	4,408,593	23,602	16,311	68,757	63,723
Year 3	After M&A	SBM Bank Kenya Limited	1,179	72,519	4,333	3,480	4,809,410	27,226	14,980	70,040	63,723
Year 1	Before M&A	Giro Commercial Bank Ltd	472	15,082	1,831	2,582	3,199,396	7,786	250	13,574	12,216
Year 2	Before M&A	Giro Commercial Bank Ltd	479	15,810	2,035	2,868	3,492,643	9,389	185	14,229	12,806
Year 3	Before M&A	Giro Commercial Bank Ltd	601	16,254	2,261	3,187	3,695,943	9,287	196	14,629	13,166



Year 1	Before M&A	I&M Bank Ltd	7,749	137,299	3,300	11,797	3,199,396	91,163	1,913	135,617	115,832
Year 2	Before M&A	I&M Bank Ltd	8,367	147,846	4,163	13,083	3,492,643	104,302	5,072	146,353	121,659
Year 3	Before M&A	I&M Bank Ltd	8,651	164,116	4,714	14,433	3,695,943	104,302	5,072	162,611	132,811
Year 1	After M&A	I&M Bank Ltd	8,725	229,161	5,561	14,984	4,408,593	144,434	21,115	224,796	209,253
Year 2	After M&A	I&M Bank Ltd	12,012	254,252	6,058	14,794	4,809,410	152,807	18,799	251,919	225,637
Year 3	After M&A	I&M Bank Ltd	10,289	283,569	8,239	21,337	5,405,746	160,665	20,178	280,016	231,244
Year 1	Before M&A	Equatorial Commercial Bank Ltd”	71	12,927	673	744	2,020,818	6,635	589	12,229	11,722
Year 2	Before M&A	Equatorial Commercial Bank Ltd”	(656)	14,109	1,191	534	2,289,649	7,538	805	13,220	13,387
Year 3	Before M&A	Equatorial Commercial Bank Ltd”	113	15,562	879	1,091	2,703,394	1,371	463	14,726	14,190
Year 1	Before M&A	“Mwalimu Sacco Society Ltd”	1,099	19,305	39,912	2,166	2,020,818	17,606	3,049	17,593	17,108
Year 2	Before M&A	“Mwalimu Sacco Society	1,221	22,007	44,347	2,843	2,289,649	17,062	3,412	19,548	19,009

		Ltd”									
Year 3	Before M&A	“Mwalimu Sacco Society Ltd”	1,269	24,540	53,991	3,238	2,703,394	18,745	3,749	20,830	20,852
Year 1	After M&A	Equatorial Commercial Bank Ltd”-spire	(655)	14,470	1,450	795	3,492,643	10,400	3,388	1,328	12,400
Year 2	After M&A	Equatorial Commercial Bank Ltd”-spire	(968)	13,802	1,810	842	3,695,943	8,319	1,322	12,369	11,985
Year 3	After M&A	Equatorial Commercial Bank Ltd”-spire	(1,576)	11,148	2,126	550	4,002,741	6,867	2,349	9,211	9,960
Year 1	Before M&A	K-Rep Bank Ltd-Sidian	256	9,319	991	1,550	2,020,818	7,041	1,408	10,241	9,018
Year 2	Before M&A	K-Rep Bank Ltd-Sidian	306	9,456	1,102	1,722	2,289,649	7,824	1,565	11,379	10,020
Year 3	Before M&A	K-Rep Bank Ltd-Sidian	359	13,000	1,224	1,913	2,703,394	8,693	1,739	12,643	11,133
Year 1	Before M&A	Centum Ltd”	256	9,319	991	1,550	2,020,818	7,041	1,408	10,241	9,018
Year 2	Before M&A	Centum Ltd”	306	9,456	1,102	1,722	2,289,649	7,824	1,565	11,379	10,020
Year 3	Before M&A	Centum Ltd”	359	13,000	1,224	1,913	2,703,394	8,693	1,739	12,643	11,133
Year 1	After M&A	K-Rep Bank Ltd-Sidian	520	19,107	1,564	2,084	3,492,643	13,317	776	18,379	15,269
Year 2	After M&A	K-Rep Bank Ltd-Sidian	62	20,875	2,124	2,186	3,695,943	14,488	2,459	19,946	17,006

Year 3	After M&A	K-Rep Bank Ltd-Sidian	(632)	19,301	1,872	1,239	4,002,741	12,330	2,596	18,246	15,854
Year 1	Before M&A	Faulu Kenya Deposit Taking Micro Finance Limited	(9,774)	5,140	1,190	1,015	2,020,818	3,237	170	4,263	4,584
Year 2	Before M&A	Faulu Kenya Deposit Taking Micro Finance Limited	718	7,638	1,025	1,262	2,289,649	4,949	261	6,774	7,024
Year 3	Before M&A	Faulu Kenya Deposit Taking Micro Finance Limited	229	12,419	1,427	1,657	2,703,394	8,724	466	11,473	11,621
Year 1	Before M&A	Old Mutual Holdings Limited	(9,774)	5,140	1,190	1,015	2,020,818	3,237	170	4,263	4,584
Year 2	Before M&A	Old Mutual Holdings Limited	718	7,638	1,025	1,262	2,289,649	4,949	261	6,774	7,024
Year 3	Before M&A	Old Mutual Holdings Limited	229	12,419	1,427	1,657	2,703,394	8,724	466	11,473	11,621
Year 1	After M&A	Faulu Kenya Microfinance Bank Ltd	432	20,320	3,134	3,882	3,199,396	14,488	498	18,798	16,533
Year 2	After M&A	Faulu Kenya Microfinance Bank Ltd	183	25,324	3,908	4,355	3,492,643	16,584	503	22,552	21,024
Year 3	After M&A	Faulu Kenya	98	27,369	30,000	4,818	3,695,943	17,95	1,454	25,198	23,027

		Microfinance Bank Ltd						5			
Year 1	Before M&A	Fina Bank Ltd	618	29,693	315	1,051	1,648,786	11,566	425	23,754	23,754
Year 2	Before M&A	Fina Bank Ltd	492	26,437	251	837	2,020,818	11,543	513	21,149	21,149
Year 3	Before M&A	Fina Bank Ltd	593	26,657	302	1,008	2,289,649	12,076	895	21,326	21,326
Year 1	Before M&A	Guaranty Trust Bank Plc”	618	29,693	315	1,051	1,648,786	11,566	425	23,754	23,754
Year 2	Before M&A	Guaranty Trust Bank Plc”	492	26,437	251	837	2,020,818	11,543	513	21,149	21,149
Year 3	Before M&A	Guaranty Trust Bank Plc”	593	26,657	302	1,008	2,289,649	12,076	895	21,326	21,326
Year 1	After M&A	“Guaranty Trust Bank (Kenya) Ltd”	687	32,992	350	1,168	-	12,851	472	26,394	21,115
Year 2	After M&A	“Guaranty Trust Bank (Kenya) Ltd”	547	29,374	279	930	3,492,643	12,826	570	23,499	18,799
Year 3	After M&A	“Guaranty Trust Bank (Kenya) Ltd”	659	29,619	336	1,120	3,695,943	13,418	994	23,695	18,956
Year 1	Before M&A	EABS Bank Ltd”	7	8,857	10	14	636,731	4,325	1,548	7,086	5,668

Year 2	Before M&A	EABS Bank Ltd”	278	8,910	370	528	974,070	4,758	1,703	7,128	5,702
Year 3	Before M&A	EABS Bank Ltd”	117	11,210	156	222	951,232	5,233	1,873	8,968	7,174
Year 1	Before M&A	“Eco bank Kenya Ltd	7	8,857	10	14	636,731	4,325	1,548	7,086	5,668
Year 2	Before M&A	“Eco bank Kenya Ltd	278	8,910	370	528	974,070	4,758	1,703	7,128	5,702
Year 3	Before M&A	“Eco bank Kenya Ltd	117	11,210	156	222	951,232	5,233	1,873	8,968	7,174
Year 1	After M&A	Eco bank Ltd”	(1,151 )	13,949	2,072	3,729	1,353,499	5,757	2,060	9,865	7,892
Year 2	After M&A	Eco bank Ltd”	188	26,892	338	609	1,648,786	6,332	2,266	10,851	8,681
Year 3	After M&A	Eco bank Ltd”	121	27,210	7,025	12,645	2,020,818	6,965	2,493	11,936	9,549
Year 1	Before M&A	Equatorial commercial bank	73	5,116	229	313	951,232	2,139	64	3,956	3,361
Year 2	Before M&A	Equatorial commercial bank	(8)	4,477	254	348	1,183,654	2,377	71	4,395	3,734
Year 3	Before M&A	Equatorial commercial bank	77	4,461	268	353	1,353,499	2,817	67	4,387	3,735
Year 1	Before M&A	Southern credit banking corporation limited	41	6,354	295	388	951,232	3,099	74	4,826	4,109
Year 2	Before	Southern credit									

	M&A	banking corporation limited	6	5,463	324	427	1,183,654	3,409	81	5,308	4,519
Year 3	Before M&A	Southern credit banking corporation limited	(730)	4,491	357	470	1,353,499	3,749	89	5,839	4,971
Year 1	After M&A	Equatorial Commercial Bank Ltd"-spire	71	12,927	664	725	2,020,818	589	211	12,217	11,722
Year 2	After M&A	Equatorial Commercial Bank Ltd"-spire	(656)	14,108	1,017	494	2,289,649	805	355	13,198	13,386
Year 3	After M&A	Equatorial Commercial Bank Ltd"-spire	152	15,562	10,339	1,090	2,656,639	1,371	463	14,698	14,190
Year 1	Before M&A	City Finance Bank Ltd"	28	920	50	86	951,232	1,656	331	736	589
Year 2	Before M&A	City Finance Bank Ltd"	(3)	587	5	9	1,183,654	1,057	211	470	376
Year 3	Before M&A	City Finance Bank Ltd"	(3)	646	6	10	1,353,499	1,162	232	517	413
Year 1	Before M&A	Jamii Bora Kenya Ltd	31	1,012	55	94	951,232	1,822	364	810	648
Year 2	Before M&A	Jamii Bora Kenya Ltd	34	1,113	61	104	1,183,654	2,004	401	891	712
Year 3	Before M&A	Jamii Bora Kenya Ltd	37	1,225	67	114	1,353,499	2,204	441	980	784
Year 1	After M&A	Jamii Bora Bank Ltd	41	1,347	74	125	2,020,818	2,425	485	1,078	862

Year 2	After M&A	Jamii Bora Bank Ltd	45	1,482	81	138	2,289,649	2,667	533	1,185	948
Year 3	After M&A	Jamii Bora Bank Ltd	50	1,630	89	152	2,020,818	2,934	587	1,304	1,043
Year 1	Before M&A	Savings and Loan (K) Limited	277	8,474	291	416	951,232	6,779	1,356	6,779	5,423
Year 2	Before M&A	Savings and Loan (K) Limited	465	11,879	488	698	1,183,654	9,503	1,901	9,503	7,603
Year 3	Before M&A	Savings and Loan (K) Limited	1,016	19,775	1,067	1,524	1,353,499	15,820	3,164	15,820	12,656
Year 1	Before M&A	Kenya Commercial Bank Limited	3,863	124,527	4,056	5,795	951,232	99,622	19,924	99,622	79,697
Year 2	Before M&A	Kenya Commercial Bank Limited	5,394	181,974	5,664	8,091	1,183,654	145,579	29,116	145,579	116,463
Year 3	Before M&A	Kenya Commercial Bank Limited	6,426	180,041	6,747	9,639	1,353,499	144,033	28,807	144,033	115,226
Year 1	After M&A	Kenya Commercial Bank Limited	14,081	282,494	14,785	21,122	2,020,818	225,995	45,199	225,995	180,796
Year 2	After M&A	Kenya Commercial Bank Limited	15,756	304,112	16,544	23,634	2,289,649	243,290	48,658	243,290	194,632
Year 3	After M&A	Kenya Commercial Bank Limited	17,746	323,312	15,158	26,619	2,289,649	258,650	51,730	258,650	206,920

Year 1	Before M&A	CFC Bank Ltd”	417	20,896	438	626	636,731	11,981	748	16,717	13,373
Year 2	Before M&A	CFC Bank Ltd”	679	25,392	713	1,019	755,306	13,179	823	20,314	16,251
Year 3	Before M&A	CFC Bank Ltd”	921	29,467	967	1,382	951,232	14,497	905	23,574	18,859
Year 1	Before M&A	“Stanbic Bank Ltd”	439	14,997	461	659	636,731	8,836	124	11,998	9,598
Year 2	Before M&A	“Stanbic Bank Ltd”	917	25,823	963	1,376	755,306	9,720	136	20,658	16,527
Year 3	Before M&A	“Stanbic Bank Ltd”	1,194	35,086	1,254	1,791	951,232	10,692	150	28,069	22,455
Year 1	After M&A	“CFC Stanbic Bank Ltd”	1,333	98,401	1,400	2,000	1,353,499	11,761	165	78,721	62,977
Year 2	After M&A	“CFC Stanbic Bank Ltd”	2,104	107,139	2,209	3,156	1,648,786	12,937	182	85,711	68,569
Year 3	After M&A	“CFC Stanbic Bank Ltd”	3,128	140,087	24,700	4,692	2,020,818	14,230	200	112,070	89,656
Year 1	Before M&A	“Prime Capital & Credit Ltd”	140	2,947	147	210	636,731	1,472	46	2,358	1,886
Year 2	Before M&A	“Prime Capital & Credit Ltd”	173	3,835	182	260	755,306	1,619	51	3,068	2,454
Year 3	Before M&A	“Prime Capital & Credit Ltd”	101	4,004	106	152	951,232	1,781	56	3,203	2,563



Year 1	Before M&A	Prime Bank Ltd”	125	7,154	131	188	636,731	3,525	402	5,723	4,579
Year 2	Before M&A	Prime Bank Ltd”	191	10,452	201	287	755,306	3,878	442	8,362	6,689
Year 3	Before M&A	Prime Bank Ltd”	317	14,374	333	476	951,232	4,265	486	11,499	9,199
Year 1	After M&A	“Prime Bank Ltd”	564	24,173	592	846	1,353,499	4,692	535	19,338	15,471
Year 2	After M&A	“Prime Bank Ltd”	770	32,444	809	1,155	1,648,786	5,161	589	25,955	20,764
Year 3	After M&A	“Prime Bank Ltd”	1,080	35,185	5,033	1,620	2,020,818	5,677	647	28,148	22,518
Year 1	Before M&A	East Africa Building society”	15	4,126	16	23	595,847	2,949	802	3,301	2,641
Year 2	Before M&A	East Africa Building society”	(603)	3,341	633	905	515,804	2,451	910	2,673	2,138
Year 3	Before M&A	East Africa Building society”	(50)	3,368	52	74	577,649	2,443	938	2,694	2,156
Year 1	Before M&A	“Akiba Bank Limited”	19	5,158	20	29	595,847	3,277	891	4,126	3,301
Year 2	Before M&A	“Akiba Bank Limited”	(754)	4,176	792	1,131	515,804	2,723	1,011	3,341	2,673
Year 3	Before M&A	“Akiba Bank Limited”	(62)	4,210	65	93	577,649	2,714	1,042	3,368	2,694
Year 1	After M&A	EABS Bank”	278	8,910	292	417	755,306	2,985	1,146	7,128	5,702
Year 2	After M&A	EABS Bank”	117	11,210	123	176	951,232	3,284	1,261	8,968	7,174

Year 3	After M&A	EABS Bank”	129	12,331	135	193	1,183,654	3,612	1,387	9,865	7,892
Year 1	Before M&A	First American Bank Limited”	191	8,138	201	287	595,847	3,289	841	6,510	5,208
Year 2	Before M&A	First American Bank Limited”	150	6,660	158	225	515,804	3,283	626	5,328	4,262
Year 3	Before M&A	First American Bank Limited”	214	8,928	225	321	577,649	5,306	577	7,142	5,714
Year 1	Before M&A	Commercial Bank of Africa	351	19,617	369	527	595,847	4,975	525	15,694	12,555
Year 2	Before M&A	Commercial Bank of Africa	254	18,341	267	381	515,804	4,625	503	14,673	11,738
Year 3	Before M&A	Commercial Bank of Africa	416	20,176	437	624	577,649	5,648	485	16,141	12,913
Year 1	After M&A	Commercial Bank of Africa	1,311	45,002	1,377	1,967	755,306	6,213	534	36,002	28,801
Year 2	After M&A	Commercial Bank of Africa	1,402	40,178	1,472	2,103	951,232	6,834	587	32,142	25,714
Year 3	After M&A	Commercial Bank of Africa	1,694	51,248	6,983	2,541	1,183,654	7,517	646	40,998	32,799
Year 1	Before M&A	Biashara Bank Limited	54	1,892	57	81	433,525	791	77	1,513	1,211
Year 2	Before M&A	Biashara Bank Limited	60	2,102	63	90	434,539	879	85	1,682	1,345
Year 3	Before M&A	Biashara Bank Limited	71	2,402	75	107	424,965	938	24	1,922	1,537
Year 1	Before M&A	I&M”	124	5,842	130	186	433,525	3,625	708	4,674	3,739
Year 2	Before M&A	I&M”	138	6,491	145	207	434,539	4,028	787	5,193	4,154

Year 3	Before M&A	I&M”	101	7,100	106	152	424,965	3,695	461	5,680	4,544
Year 1	After M&A	I &M”	285	12,130	299	428	515,804	5,498	448	9,704	7,763
Year 2	After M&A	I &M”	372	14,912	391	558	577,649	8,468	766	11,930	9,544
Year 3	After M&A	I &M”	409	16,403	8,000	614	636,731	9,315	843	13,123	10,498
Year 1	Before M&A	“Bullion Bank Limited	(202)	636	212	303	410,395	902	859	509	407
Year 2	Before M&A	“Bullion Bank Limited	(224)	707	235	336	433,525	1,003	954	565	452
Year 3	Before M&A	“Bullion Bank Limited	(249)	785	261	374	434,539	1,114	1,060	628	502
Year 1	Before M&A	“Southern Credit Banking Corp Limited”	(11)	1,284	12	17	410,395	1,225	1,166	1,027	822
Year 2	Before M&A	“Southern Credit Banking Corp Limited”	(13)	1,427	13	19	433,525	1,348	1,283	1,141	913
Year 3	Before M&A	“Southern Credit Banking Corp Limited”	(14)	1,585	15	21	434,539	1,218	606	1,268	1,014
Year 1	After M&A	Southern Credit Banking Corp Limited”	14	3,517	15	21	595,847	1,669	516	2,814	2,251
Year 2	After M&A	Southern Credit Banking Corp Limited”	49	3,264	51	74	515,804	1,968	660	2,611	2,089
Year 3	After M&A	Southern Credit	61	3,848	64	92	577,649	2,158	651	3,078	2,463

		Banking Corp Limited”									
Year 1	Before M&A	Citibank NA”	501	18,027	526	752	410,395	8,134	160	14,421	11,537
Year 2	Before M&A	Citibank NA”	557	20,030	585	836	433,525	9,038	178	16,024	12,819
Year 3	Before M&A	Citibank NA”	619	22,255	650	929	434,539	10,042	198	17,804	14,243
Year 1	Before M&A	ABN Amro Bank”	681	24,481	715	1,021	410,395	11,046	218	19,584	15,668
Year 2	Before M&A	ABN Amro Bank”	749	26,929	786	1,123	433,525	12,151	240	21,543	17,234
Year 3	Before M&A	ABN Amro Bank”	489	15,790	513	734	434,539	8,818	868	12,632	10,106
Year 1	After M&A	“Bank of Africa Kenya Ltd”	538	17,369	565	807	595,847	9,700	955	13,895	11,116
Year 2	After M&A	“Bank of Africa Kenya Ltd”	592	19,106	621	888	515,804	10,670	1,050	15,285	12,228
Year 3	After M&A	“Bank of Africa Kenya Ltd”	651	21,016	683	976	577,649	11,737	1,155	16,813	13,451
Year 1	Before M&A	Credit Agricole Indosuez (K) Ltd”	63	5,794	66	95	424,965	5,398	255	4,635	3,708
Year 2	Before M&A	Credit Agricole Indosuez (K) Ltd”	45	4,695	47	68	595,847	2,136	172	3,756	3,005

Year 3	Before M&A	Credit Agricole Indosuez (K) Ltd”	1	4,809	1	2	515,804	3,343	30	3,847	3,078
Year 1	Before M&A	“Bank of Africa Kenya Ltd”	1	5,290	1	2		3,677	33	4,232	3,386
Year 2	Before M&A	“Bank of Africa Kenya Ltd”	1	5,819	1	2	595,847	4,045	36	4,655	3,724
Year 3	Before M&A	“Bank of Africa Kenya Ltd”	1	6,401	1	2	515,804	4,450	40	5,121	4,096
Year 1	After M&A	Bank of Africa Kenya Ltd”	8	7,898	8	11	636,731	3,060	29	6,318	5,055
Year 2	After M&A	Bank of Africa Kenya Ltd”	61	6,488	64	92	755,306	3,366	32	5,190	4,152
Year 3	After M&A	Bank of Africa Kenya Ltd”	158	6,700	166	237	951,232	3,703	35	5,360	4,288
Year 1	Before M&A	“Mashreq Bank Ltd”	5	436	6	8	439,190	173	37	349	279
Year 2	Before M&A	“Mashreq Bank Ltd”	6	484	6	9	410,395	192	41	387	310
Year 3	Before M&A	“Mashreq Bank Ltd”	7	538	7	10	433,525	213	45	430	344
Year 1	Before M&A	“Dubai Kenya Ltd	7	598	8	11	439,190	237	50	478	383
Year 2	Before M&A	“Dubai Kenya Ltd	8	664	9	12	410,395	263	56	531	425
Year 3	Before M&A	“Dubai Kenya Ltd	9	738	9	14	433,525	293	62	590	472
Year 1	After M&A	“Dubai Kenya Ltd	10	820	11	15	424,965	325	69	656	525

Year 2	After M&A	“Dubai Kenya Ltd	(28)	750	29	42	595,847	510	92	600	480
Year 3	After M&A	“Dubai Kenya Ltd	355	783	1,000	533	515,804	510	97	626	501
Year 1	Before M&A	Universal Bank Limited”	6	720	7	10	439,190	173	37	576	461
Year 2	Before M&A	Universal Bank Limited”	7	800	7	11	410,395	192	41	640	512
Year 3	Before M&A	Universal Bank Limited”	8	888	8	12	433,525	213	45	711	569
Year 1	Before M&A	Paramount Bank Limited	9	987	9	13	439,190	237	50	790	632
Year 2	Before M&A	Paramount Bank Limited	10	1,097	10	15	410,395	263	56	877	702
Year 3	Before M&A	Paramount Bank Limited	11	1,219	11	16	433,525	293	62	975	780
Year 1	After M&A	Paramount Universal Bank Limited	12	1,354	13	18	424,965	325	69	1,083	867
Year 2	After M&A	Paramount Universal Bank Limited	280	1,262	294	420	595,847	816	361	1,010	808
Year 3	After M&A	Paramount Universal Bank Limited	11	1,209	12	17	515,804	873	299	967	774
Year 1	Before M&A	“Guilders Interbank Ltd”	30	2,256	31	45	395,661	2,040	1,214	1,805	1,444
Year 2	Before M&A	“Guilders Interbank Ltd”	33	2,507	35	50	439,190	2,267	1,349	2,005	1,604

Year 3	Before M&A	“Guilders Interbank Ltd”	37	2,785	39	55	410,395	2,519	1,499	2,228	1,782
Year 1	Before M&A	“Guardian Bank Limited”	41	3,095	43	61	433,525	2,799	1,665	2,476	1,981
Year 2	Before M&A	“Guardian Bank Limited”	45	3,438	48	68	439,190	3,110	1,850	2,751	2,201
Year 3	Before M&A	“Guardian Bank Limited”	50	3,821	53	76	410,395	3,455	2,056	3,056	2,445
Year 1	After M&A	“Guardian Bank Limited”	56	4,245	59	84	434,539	3,839	2,284	3,396	2,717
Year 2	After M&A	“Guardian Bank Limited”	56	3,625	59	84	424,965	2,716	1,466	2,900	2,320
Year 3	After M&A	“Guardian Bank Limited”	64	4,011	67	96	595,847	2,449	1,202	3,209	2,567
Year 1	Before M&A	Habib A.G Zurich	56	1,652	59	84	395,661	395	49	1,321	1,057
Year 2	Before M&A	Habib A.G Zurich	63	1,835	66	94	439,190	439	54	1,468	1,175
Year 3	Before M&A	Habib A.G Zurich	70	2,039	73	104	410,395	487	60	1,631	1,305
Year 1	Before M&A	“Habib Africa Bank limited”	77	2,266	81	116	395,661	542	67	1,813	1,450
Year 2	Before M&A	“Habib Africa Bank limited”	86	2,517	90	129	439,190	602	75	2,014	1,611
Year 3	Before M&A	“Habib Africa Bank limited”	95	2,797	100	143	410,395	669	83	2,238	1,790
Year 1	After M&A	“Habib A.G Zurich Limited	106	3,108	111	159	434,539	743	92	2,486	1,989
Year 2	After M&A	“Habib A.G Zurich Limited	113	3,514	119	170	424,965	732	42	2,811	2,249

Year 3	After M&A	“Habib A.G Zurich Limited	82	3,806	86	123	595,847	740	56	3,045	2,436
Year 1	Before M&A	“Barclays Bank of Kenya Limited”	1,585	37,675	1,665	2,378	395,661	971	2,187	30,140	24,112
Year 2	Before M&A	“Barclays Bank of Kenya Limited”	1,761	41,862	1,850	2,642	439,190	1,079	2,430	33,489	26,791
Year 3	Before M&A	“Barclays Bank of Kenya Limited”	1,957	46,513	2,055	2,936	410,395	1,199	2,700	37,210	29,768
Year 1	Before M&A	Barclays Merchant Finance Limited”	2,175	51,681	2,283	3,262	395,661	1,332	3,000	41,345	33,076
Year 2	Before M&A	Barclays Merchant Finance Limited”	2,416	57,423	2,537	3,624	439,190	1,480	3,333	45,939	36,751
Year 3	Before M&A	Barclays Merchant Finance Limited”	2,685	63,804	2,819	4,027	410,395	1,644	3,704	51,043	40,834
Year 1	After M&A	Barclays Bank of Kenya Limited”	2,983	70,893	3,132	4,475	434,539	1,827	4,115	56,714	45,372
Year 2	After M&A	Barclays Bank of Kenya Limited”	4,215	74,178	4,426	6,323	424,965	47,615	5,951	59,342	47,474
Year 3	After M&A	Barclays Bank of Kenya	2,518	86,027	14,615	3,777	595,847	52,82	7,925	68,822	55,057



		Limited”						9			
Year 1	Before M&A	“Standard Chartered Bank (K) Limited”	1,658	26,232	1,740	2,486	395,661	9,621	1,432	20,986	16,789
Year 2	Before M&A	“Standard Chartered Bank (K) Limited”	1,842	29,147	1,934	2,763	439,190	10,690	1,591	23,318	18,654
Year 3	Before M&A	“Standard Chartered Bank (K) Limited”	2,046	32,386	2,149	3,070	410,395	11,877	1,768	25,909	20,727
Year 1	Before M&A	Standard Chartered Financial Services”	2,274	35,984	2,387	3,411	395,661	13,197	1,964	28,787	23,030
Year 2	Before M&A	Standard Chartered Financial Services”	2,526	39,982	2,653	3,790	439,190	14,663	2,182	31,986	25,589
Year 3	Before M&A	Standard Chartered Financial Services”	2,807	44,425	2,947	4,211	410,395	16,293	2,425	35,540	28,432
Year 1	After M&A	“Standard Chartered Bank (K) Limited”	3,119	49,361	3,275	4,679	434,539	18,103	2,694	39,489	31,591
Year 2	After M&A	“Standard Chartered Bank (K) Limited”	3,205	54,410	3,365	4,808	424,965	15,106	1,601	43,528	34,822
Year 3	After M&A	“Standard Chartered Bank (K) Limited”	3,217	61,736	9,744	4,826	595,847	17,048	1,399	49,389	39,511

Year 1	Before M&A	“National Bank of Kenya Limited”	240	12,651	252	360	395,661	19,760	13,859	10,121	8,097
Year 2	Before M&A	“National Bank of Kenya Limited”	266	14,057	280	399	439,190	21,955	15,399	11,246	8,997
Year 3	Before M&A	“National Bank of Kenya Limited”	296	15,619	311	444	410,395	24,394	17,110	12,495	9,996
Year 1	Before M&A	“Kenya National Capital Corp”	329	17,355	345	493	395,661	27,105	19,012	13,884	11,107
Year 2	Before M&A	“Kenya National Capital Corp”	365	19,283	384	548	439,190	30,117	21,124	15,426	12,341
Year 3	Before M&A	“Kenya National Capital Corp”	406	21,425	426	609	410,395	33,463	23,471	17,140	13,712
Year 1	After M&A	National Bank of Kenya Limited	451	23,806	474	677	434,539	37,181	26,079	19,045	15,236
Year 2	After M&A	National Bank of Kenya Limited	(323)	23,956	(339)	(485)	424,965	26,119	14,582	19,165	15,332
Year 3	After M&A	National Bank of Kenya Limited	390	25,205	410	585	595,847	28,731	14,987	28,593	22,874
Year 1	Before M&A	“Diamond Trust Bank (K) Ltd”	93	2,697	98	140	395,661	1,005	395	2,158	1,726
Year 2	Before	“Diamond Trust	103	2,997	109	155	439,190	1,117	439	2,397	1,918

	M&A	Bank (K) Ltd”									
Year 3	Before M&A	“Diamond Trust Bank (K) Ltd”	115	3,330	121	172	410,395	1,241	487	2,664	2,131
Year 1	Before M&A	Premier Savings & finance Limited”	128	3,700	134	191	395,661	1,379	542	2,960	2,368
Year 2	Before M&A	Premier Savings & finance Limited”	142	4,111	149	213	439,190	1,533	602	3,289	2,631
Year 3	Before M&A	Premier Savings & finance Limited”	158	4,568	165	236	410,395	1,703	669	3,654	2,923
Year 1	After M&A	“Diamond Trust Bank (K) Ltd”	175	5,075	184	263	434,539	1,892	743	4,060	3,248
Year 2	After M&A	“Diamond Trust Bank (K) Ltd”	38	5,417	40	57	424,965	1,916	339	4,334	3,467
Year 3	After M&A	“Diamond Trust Bank (K) Ltd”	107	6,164	112	161	595,847	2,780	161	4,931	3,945
Year 1	Before M&A	Guardian Bank Limited”	27	2,030	28	40	321,163	1,836	1,092	1,624	1,299
Year 2	Before M&A	Guardian Bank Limited”	30	2,256	31	45	395,661	2,040	1,214	1,805	1,444
Year 3	Before M&A	Guardian Bank Limited”	33	2,507	35	50	439,190	2,267	1,349	2,005	1,604
Year 1	Before M&A	“First National Finance Bank”	37	2,785	39	55	321,163	2,519	1,499	2,228	1,782
Year 2	Before M&A	“First National Finance Bank”	41	3,095	43	61	395,661	2,799	1,665	2,476	1,981

Year 3	Before M&A	“First National Finance Bank”	45	3,438	48	68	439,190	3,110	1,850	2,751	2,201
Year 1	After M&A	“Guardian Bank Limited	50	3,821	53	76	433,525	3,455	2,056	3,056	2,445
Year 2	After M&A	“Guardian Bank Limited	56	4,245	59	84	434,539	3,839	2,284	3,396	2,717
Year 3	After M&A	“Guardian Bank Limited	56	3,625	59	84	424,965	2,716	1,466	2,900	2,320
Year 1	Before M&A	National Industrial Credit Bank Ltd”	194	3,204	204	291	278,320	2,058	525	2,563	2,050
Year 2	Before M&A	National Industrial Credit Bank Ltd”	216	3,559	226	324	321,163	2,287	583	2,848	2,278
Year 3	Before M&A	National Industrial Credit Bank Ltd”	240	3,955	252	360	395,661	2,541	648	3,164	2,531
Year 1	Before M&A	“African Mercantile Banking Corp”	266	4,394	280	399	278,320	2,823	720	3,516	2,812
Year 2	Before M&A	“African Mercantile Banking Corp”	296	4,883	311	444	321,163	3,137	800	3,906	3,125
Year 3	Before M&A	“African Mercantile Banking Corp”	329	5,425	345	493	395,661	3,485	889	4,340	3,472
Year 1	After M&A	NIC Bank	365	6,028	384	548	410,395	3,873	987	4,822	3,858

		Limited”									
Year 2	After M&A	NIC Bank Limited”	406	6,698	426	609	433,525	4,303	1,097	5,358	4,287
Year 3	After M&A	NIC Bank Limited”	451	7,442	474	677	434,539	4,781	1,219	5,954	4,763
Year 1	Before M&A	“First American Finance Limited”	136	2,242	143	204	250,488	897	269	1,794	1,435
Year 2	Before M&A	“First American Finance Limited”	149	2,467	157	224	278,320	987	296	1,973	1,579
Year 3	Before M&A	“First American Finance Limited”	164	2,713	173	247	306,152	1,085	326	2,171	1,737
Year 1	Before M&A	First American Bank”	181	2,985	190	271	250,488	1,194	358	2,388	1,910
Year 2	Before M&A	First American Bank”	199	3,283	209	298	278,320	1,313	394	2,627	2,101
Year 3	Before M&A	First American Bank”	219	3,612	230	328	306,152	1,445	433	2,889	2,311
Year 1	After M&A	First American(K)Ltd”	241	3,973	253	361	395,661	1,589	477	3,178	2,543
Year 2	After M&A	First American(K)Ltd”	265	4,370	278	397	439,190	1,748	524	3,496	2,797
Year 3	After M&A	First American(K)Ltd”	291	4,807	4,000	437	410,395	1,923	577	3,846	3,076

