

**THE EFFECT OF MERGERS AND ACQUISITIONS ON THE  
FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN  
KENYA**

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UNIVERSITY OF NAIROBI**

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**DECLARATION**

I declare this research project is my original work and has not been submitted in any other University.

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## **DEDICATION**

TO

### **My Almighty God**

For taking me this far. Let your Holy Name be Glorified here on earth as it is done there in Heaven !

### **My Dear Mum**

Phyllis Mbae

For denying her self everything and taking me to school. Mum, you are source of my inspiration.

### **My Loving Father**

Julius Mbae

Your inspiration has given a push this far.

### **My brother**

Benson Mwirigi

Without whose encouragement I would not have made it.

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## ABSTRACT

This paper looked at the effects of mergers and acquisitions on financial performance of commercial banks in Kenya. This study set to establish whether the many mergers and acquisitions that have happened in Kenya's banking sector had influenced financial performance.

The type of research design was an event study which was designed to investigate the effect of an event on a specific dependent variable. The population of a study consisted of 14 banks that merged in period 1998 to 2013 in Kenya. The study used secondary data from audited annual financial statements of respective banks over the period. Financial data from statements of financial positions, statement of comprehensive income statements and statements of cash flows of respective commercial banks for five years before and after mergers was used to calculate and analysed the ROA, ROE and C/I from the published financial statements and reports for the merged banks for the period under study.

The research found that there was improvement in financial performance of commercial banks after a merger or acquisition, this conclusion was reached due to increase in ROA, ROE and reduction in Cost to Income ratio. T test for mean difference on ROE shows that premerger period had a mean of 2.079 as contrasted by post merger mean of 3.965. Also on C/I ratio the research established a pre merger mean of 64.271 and post merger mean of 55.812 thus reduction in total overall operating cost and increase in overall income after a merger. The new financial formed after a merger is more financially sound due to reduction of insolvency risks. The study established a increase in mean on ROA from 1.591 and post merger mean was 2.689. This depicts that post merger period was accompanied by higher performance. The Levene's significance on ROE and C/I is less than .05 thus finding shows significance difference in performance in commercial banks with post merger bank had higher return. Consequently, ROA shows a insignificant difference in performance with p value of .397 which is more than .05, with unequal variances. In conclusion, Mergers and acquisitions alone can't achieve strong, efficient and competitive banking systems because performance is dependant of several factors.

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## LIST OF ABBREVIATIONS

CAR	Capital Adequacy Ratio
CL-NR	Current liabilities to Net worth Ratio
C/I	Cost to Total Income
CR	Current Ratio
EPS	Earnings per Share
FA-NR	Fixed Asset to Net worth Ratio
M&A	Mergers and Acquisitions
NPL	Non-performing Loans
ROA	Return on Assets
ROE	Return on Equity
LDR	Loan to Deposit Ratio

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The world is in a state of flux, being influenced by the forces of globalization and fast technological changes and as a consequence firms are facing intense competition. To face the challenges and explore the opportunities, firms are going for inorganic growth through various strategic alternatives like mergers and acquisitions (M&As), strategic alliances, joint ventures etc. The M&A are arguably the most popular strategy among firms who seek to establish a competitive advantage over their rivals. In the last seven years, during the fifth merger wave, the value of acquisitions has increased dramatically (Kumar & Bansal, 2008).

Due to changes in the operating environment, several licensed institutions, mainly commercial banks, have to merge (combine their operations in mutually agreed terms) or one institution takes over another's operations (acquisitions). Some of the reasons put forward for mergers and acquisitions are: to gain greater market power, gain access to innovative capabilities, thus reducing the risks associated with the development of a new product or service, maximize efficiency through economies of scale and scope and finally in some cases, reshape a firm's competitive scope (Hitt et al., 2007). Other reasons include a short-term solution to finance problems that companies face due to information asymmetries (Fluck and Lynch, 1999), revitalize the company by bringing in new knowledge to foster long-term survival (Vermeulen and Bakerma, 2001) and to achieve synergy effects (Lubatkin, 1987; Birkinshaw et al., 2000; Vaara, 2002). Thus, there is

need to look at effects of mergers and acquisitions by comparing their financial performance before merging with post mergers period to evaluate whether the merger motive(s) has been met.

### **1.1.1 Mergers and Acquisitions**

A merger is a combination of two or more companies in which the resulting firm maintains the identity of the acquiring company. In consolidation two or more companies are combined to form a new entity. A consolidation might be utilised when the firms are of equal size and market power, Block et al (2009). A merger means any combination that forms one economic unit from two previous one, Brigham and Daves (2010).

An acquisition is taking over by one company of the share capital of another in exchange for cash, ordinary shares, loan stock or combinations of this. This results in a identity of the target being absorbed into that of acquirer, Pike and Neale (2003). The definition by Hill and Jones(2001), a takeover is when the acquiring company gains and control of another without the cooperation of its existing management. The acquiring company usually joins forces with the key shareholders, purchase stock on a open market or by soliciting proxies.

The motive for mergers and consolidation are both financial and non financial in nature .The financial motive is where a merger allows the acquiring firm to enjoy a potentially desire portfolio effects by achieving risk reduction while perhaps maintaining the firm rate of return. If two firms that benefit from opposite phases of the business cycle combine, their variability in performance may be reduced. Risk averse investors my then

discount the future performance of merged firm at a lower rate and thus assign it a higher valuation than that assigned to the separate firm, Block et al (2009).

Non financial motives for mergers include the desire to expand management and marketing capabilities as well as acquisitions of new products. Mergers are often with companies in allied but not directly related fields. Perhaps the greatest management motive for merger is possible synergistic affects i.e the whole is greater than the sum of the parts. This synergy is as result of eliminating overlapping functions in production and marketing, Block et al (2009).According to Brigham and Daves (2010), synergy exists when the whole is greater than the sum of the parts.

Many managers today regard buying a company for success to markets, products, technology and resources as less risky and speedier than gaining the same objectives through organic growth, Jemison and Sitkin (1986).Mergers and acquisition are investment decisions that should be evaluated on essentially the same criteria as when new assets such as machinery and equipments are purchased. Indeed, the 'the make or buy 'decision can be conceptually applied to the acquisitions process, Pike and Neale,(2002).according to Hill and Jones (2001), most mergers and acquisitions will be pooled to attractiveness of the target in areas like product design, manufacturer's technology, good management, tight financial discipline and the market share.

Mergers and acquisitions of banks are not exactly recent phenomena for Kenya. As early as 1989, Kenya witnessed the merger of 9 insolvent financial institutions to form the Consolidated Bank of Kenya Ltd. This incorporation was under the financial sector reform program established by the Government with the objective of taking over and re-

structuring various troubled institutions. Also on 10<sup>th</sup> November 1994, the Indosuez Merchant Finance merged with Banque Indosuez to form Credit Agricole Indosuez ([www.centralbank.go.ke](http://www.centralbank.go.ke)). This has been an ongoing activity as warranted by market forces. The recent merger in the Kenyan financial industry occurred in 2010 with the first merger being on 1<sup>st</sup> February between Savings and Loans (K) Ltd and Kenya Commercial Bank to form Kenya Commercial Bank Ltd. It was subsequently followed by a merger between City Finance Bank Ltd and Jamii Bora Kenya Ltd on 11<sup>th</sup> February and finally the last merger of the year between Equatorial Commercial Bank Ltd and Southern Credit Banking Corporation to form Equatorial Commercial Bank Ltd on 1<sup>st</sup> June ([www.centralbank.go.ke](http://www.centralbank.go.ke)).

### **1.1.2 Firm Financial Performance**

Financial performance measures how well a commercial bank uses assets from primary mode of business to generate revenues. Also it a general measure of a firm's overall financial health position and also to compare similar banks across the same industry over a specified period of time, Pandey (2008). There different way of measuring financial performance, but all measures should be taken in aggregation. Most growing firm business ultimately target increased profits which makes it important to know how to measure banks profitability. The key measures of financial performance includes: Net profit margin which measures profit, as it takes all costs into account i.e all overheads as well as interest and tax payments. Gross profit margin which measures how much money an organization made after direct expenses have been taken into account; operating margin lies between the gross and net measures of measuring profitability after overheads

have been deducted before interest and tax payments known as EBIT (earnings before interest and taxes).

### **1.1.3 Effect of Mergers and Acquisitions on Financial Performance**

Mergers are undertaken if it is believed two or more firms which are merging will of greater value together than some of its parts. Specific motive of merger are strategic and financial reasons which includes; Tax advantages, increased liquidity for owners, gaining access to funds if acquired firm has high financial leverage and with no access or have limited additional external financing sources; for growth of company; for diversification due to increased competition, synergistic benefits resulting from economies of scale.

Mergers and Acquisitions results a positive financial performance in firms. Recently, studies in industrial economics and company finance have measured the profitability of companies before and after merger. Kemal (2011) argues that their aim has been to assess the gain from M&A to a particular group of wealth-holders, such as the acquirer equity owners and as other times the exercise has been directed at assessing the impact of M&A on efficiency, often as part of discussion of whether government should foster or inhibit M&As. Investment decisions are directly related to the financial factors. Investors and financial analyst use ratio analysis in order to evaluate the financial position of an organisation. He states that the M&As between two equally sized banks increases the efficiency as well as the profits.

Chesang (2002) concluded that though some banks showed a decline in performance in the post-merger period, merger restructuring could still be considered as a recommended option to improve the overall financial performance of weak and ailing medium sized

banks. She noted that merger restructuring is likely to positively affect financial performance due to renewed attention to new business growth strategies, improved management, accounting and reporting system, legal regulatory systems and reduced staffing levels. Marangu (2007) in research on effects of mergers on financial performance of non-listed banks in Kenya concluded that there was a significant improvement in performance for the banks after they merged.

#### **1.1.4 Commercial Banks in Kenya**

The banking industry in Kenya is governed by companies Act, the banking Act, the central bank of Kenya act and various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalised in 1995 and exchange control lifted. The CBK, Which falls under minister of finance docket, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of financial system. Currently there are 44 licensed commercial banks operating in the country. The banks have come together under the Kenya Bankers Associations (KBA), which serves as lobby for banking sectors interest. The KBA serves a forum to address issues affecting members ([www.centralbank.go.ke](http://www.centralbank.go.ke)).

Over the last few years, the banking sector in Kenya has continued to growth in assets, deposits, profitability and product offering. The growth has been mainly underpinned by an industry wide branch network expansion strategy both in Kenya and in East Africa community region as well as automation of a large number of services and a move towards emphasis on complex customer needs rather than traditional ‘off-the shelf’ banking products. Players in this sector have experienced increased competition over the



last few years resulting from increased innovations among the players and few entrants into the market ([www.kba.co.ke](http://www.kba.co.ke)).

## **1.2 Research Problem**

Mergers and Acquisition have become the main means of firms in attaining higher performance which is ultimate goal of every firm, banks are not exceptional. Many studies have been done on mergers and acquisition and findings have not been consistent. Ulton (1974) examined 39 companies which had undertaken large and persistent mergers in the period 1954-1965. He concluded that there is no evidence from the sample that merger intensive firms have higher profitability than the coverage industry. Dodd (1980) and Asquith (1983) reported negative bidder returns from day of take over announcement, While Kaplan and Weisbach (1992) found that 44% of target company purchased are eventually divested, and they classify about one third to one half of divestitures as unsuccessful.

Notably, Lichtenberg, Frank and Siegel (1990) examined UK active acquires and found out some evidence that companies undertaking mergers earned a higher rate of return than those that relied on internal growth. They were however unable to identify a positive relationship between the level of merger activity and profitability. From the above empirical studies, the lack of consistency in the results can be observed and therefore the necessity to carry out further research in this area. Few studies have been carried out in Kenya on mergers and acquisitions. This study is set to find out if there is any effect on the bank performance as a result of mergers and acquisitions.

Studies carried out in banking industry have shown most experience improved performance after carrying a merger, Marangu (2007). It is therefore expected that company shall experience better performance upon merging. Brigham and Daves (2010) used a hypothetical merger to test the income statement effects of a merged firm before and after merger. The merged company's EPS was \$2.33 where's the pre-merger EPS for both companies is \$2.40 respectively. Korir (2006) conducted a research of effects of mergers and acquisitions focusing on companies listed on Nairobi Stock Exchange (NSE). He used data which was limited to 3 years. He suggested further research using data drawn from longer time frame. This study will therefore use 5 year data (pre and post merger). Marangu (2007) noted that studies in mergers and acquisitions in Kenya are in their nascent stages and the findings are inconclusive.

This study will therefore re-examine the effects of mergers and acquisitions in banking industry. Therefore, is designed to fill the knowledge gap by answering the following questions: Does performance of Kenyan banks change does it remain the same before or after merger?

### **1.3 Research Objective**

To determine the effects of mergers and acquisitions on the financial performance of commercial banks in Kenya.

## **1.4 Value of the Study**

The study will be of importance to:

Kenyan current investors, customers of commercial banks and other banks in this competitive industry as it will add knowledge on the understanding of the importance of mergers in analyzing performance.

Academicians and Researchers as it will provide more insight into the relationship between mergers and bank performance. As the business environment is very dynamic, the practitioners of management need to update themselves and their respective industries and on the best practices required. The students as it will be used as a basis for reference for any future study in the field of mergers and acquisition and restructuring of banks.

It will also be of benefit to management, the study will help in identifying timings for undertaking mergers and acquisitions. Poor timing strategy during M and A may lead to the ultimate collapse of a bank or financial distress since business environment is very dynamic and competitive thus management needs to update themselves on their respective industry and best practices.

To the central bank of Kenya as bank regulator to institute policies aimed specifically at mergers and acquisitions by knowing when the synergy combination occurs they will lead to strength or weaknesses which can put depositor's assets at a risk. Lack of optimal information on mergers and acquisitions may lead to uninformed decisions being made by policy and regulator makers leading to collapse of financial sector.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter builds on the background research problem and the research questions identified in the previous chapter. Literature relevant to the study is summarized and discussed thematically; The chapter discusses relevant literatures from broader and richer perspective to bring out impact of mergers and acquisition on financial performance of commercial banks in Kenya. The chapter begins with theoretical framework of mergers and acquisitions where it discusses theories relevant to the study and the proceeds to present the empirical studies relevant to this study.

#### **2.2 Theoretical Review**

Several theories have been advanced towards the justification and impact of mergers and Acquisitions. Theories on mergers and Acquisitions can broadly be classified into two major categories; Value increasing theories and value decreasing theories. According to the value increasing school, mergers occur, broadly, because mergers generate ‘synergies’ between the acquirer and the target, and synergies, in turn, increases the value of the firm (Hitt, 2001). Examples of these theories are the theory of efficiency and Corporate Control Theory. Value-Destroying Theories on the other hand advocate that mergers may fail to create value; it is suggested – with somewhere between 60% and 80% classified as ‘failures’ (Singh, 1999). Examples of this theory include the hubris theory.

### **2.2.1 Corporate Control Theory**

This theory suggests that there is always another firm or management team willing to acquire an underperforming firm, to remove those managers who have failed to capitalize on the opportunities to create synergies, and thus to improve the performance of its assets (Weston, 2004). Managers who offer the highest value to the owners, it suggests, will take over the right to manage the firm until they themselves are replaced by another team that discovers an even higher value for its assets.

Few bidders, of course, openly announce the goal of increased market power as an explicit merger motivation, but the fact that horizontal mergers – that is, mergers between competitors – dominate the M&A industry (Gugler, 2003) is surely indicative of just how popular it is as a merger motive. Hence, inefficient managers will supply the ‘market for corporate control’ (Manne, 1965), and managers that do not maximize profits will not survive, even if the competitive forces on their product and input markets fails to eliminate them.

‘Hostile’ takeovers should, as a result, be observed amongst poorly performing firms, and amongst those whose internal corporate governance mechanisms have failed to discipline their managers (Hasbrouck, 1985).

### **2.2.2 The Theory of Efficiency**

This theory suggests that mergers will only occur when they are expected to generate enough realizable synergies to make the deal beneficial to both parties (Trautwein, 1990). It is the symmetric expectations of gains which results in a ‘friendly’ merger being proposed and accepted. If the gain (value) is not positive, it is suggested, the target firm’s

owners would not sell or submit to the acquisition, and if the gains were negative to the acquiring firm, the bidder would not complete the deal.

Efficiency theory predicts value creation with positive returns to both the acquirer and the target firm (Banerjee and Eckard, 1998) evidence this suggestion. Chatterjee (1986) suggests that there is a difference between 'operative synergies' and 'efficiency gains' achieved through economies of scale and scope. According to him operating synergies of mergers states that economies of scale exist in industry and that before a merger take place, the levels of activity that the firms operate at are insufficient to exploit the economies of scale. The efficiency gains accrue from operating synergies which are achieved through the transfer of knowledge, economies of scale and economies of scope. Pandey (2005) suggests that a combination of two or more companies may result in more than the average profitability due to cost reduction and efficient utilization of resources. This may happen because of the perceived economies of Scale, Synergy and Operating Economies. M&As can increase the market share of the merged firm. Mergers and Acquisitions may be carried out in order to achieve a monopoly over the market. It is an explanation of horizontal and conglomerate M&As. Market power can be accomplished through the deliberate reduction of supply, cross-subsidizing products and deterring potential market entrants (Trautwein, 1990; Rodermann, 2004). These benefits are also referred to as collusive synergy (Chatterjee, 1986). Monopoly decreases competition, firms could increase the prices they charge their customers for their products and/or decrease the prices they pay their suppliers for raw material.

Efficiency theory is relevant in this study as it asserts how firms operating below their potential and consequently have low efficiency. Such firms are likely to be acquired by other, more efficient firms in the same industry. This is because firms with greater efficiency would be able to identify firms with good potential operating at lower efficiency. They would also have the managerial ability to improve the latter's performance.

### **2.2.3 The Hubris Theory**

The theory of managerial hubris (Roll, 1986) suggests that managers may have good intentions in increasing their firm's value but, being over-confident; they over-estimate their abilities to create synergies. The Hubris theory constitutes a psychological based approach to explain Mergers and Acquisitions. It states that the management of acquiring firms over rates their ability to evaluate potential acquisition targets. This managerial over optimism typically results in erroneous decisions which are overpriced (Trautwein 1990). Over-confidence increases the probability of overpaying (Hayward and Hambrick, 1997; Malmendier and Tate, 2008), and may leave the winning bidder in the situation of a winner's-curse which dramatically increases the chances of failure (Dong, 2006).

In an auction environment the winning bid is usually in excess of the estimated value of the target company and is likely to represent a positive valuation error. The positive valuation error represents the 'winners curse'. The winner is cursed in the sense that he paid more than the company's worth. In particular, the hubris theory states that when a merger or acquisition announcement is made, the shareholders of the bidding firm incur a

loss in terms of the share price while those of the target firm generally enjoy a contrary effect. The prime reason behind this is that when a firm announces a merger offer to the target, the share price of the target firm increases because shareholders in the target firm are ready to transfer shares in response to the high premium that will be offered by the Acquiring firm, (Machiraju 2010).The risk of potential failure, due to overrated acquisition price which significantly exceeds the fair value of the target company, increases in an auction. This phenomenon is the basis of the winner's curse hypothesis that argues that the value of a target traded in an auction is usually lower than the acquisition price (Hofmann, 2004).

## **2.3 Measures of Financial Performance**

Profitability, solvency and capital adequacy measures can be used to analyze financial performance of a bank pre -and post merger.

### **2.3.1 Profitability Ratios**

Profit is the difference between revenues and expenses over a period of time (usually one year). Financial managers should continuously evaluate the efficiency of the company in terms of profit to ensure its survival and growth. Profitability ratios indicate what the firm is earning on its sales, assets or equity.

Pandey (1999) cites the following profitability ratios: return on asset (ROA) and return on equity (ROE) as the measures of profitability. Return on assets (ROA) is a comprehensive measure of overall performance of an entity from an accounting



perspective. According to Mitchell and Mulherin (1996), ROA is a primary indicator of managerial efficiency as it indicates how capable the management of an entity has been converting the entity's assets into net earnings. It is computed by dividing the earning after interest and taxes over the total assets of an entity.

According to Myers and Majluf (2006), Return on Equity (ROE) measures accounting profitability from shareholder's perspective. It is the rate of return flowing to an entity shareholder's as it approximates the net benefit that the shareholders have received from investing their capital. It is computed by dividing the earning after interest and taxes over equity. Cost to Income Ratio (C/I) = total cost /total income measures the income generated per shilling cost. That is how expensive it is for the bank to produce a unit of output , the lower the C/I ratio, the better the performance of the bank.

### **2.3.2 Solvency Ratios**

According to Pandey (1999), Solvency measures financial soundness of a firm and how well the company can satisfy its short and long term obligations. Solvency ratios that can be used to evaluate bank financial performance include: quick ratio, current ratio, current liabilities to net worth ratio, total liabilities to net worth ratio and fixed asset to net worth ratio. Quick ratio or acid test ratio considers only cash, marketable securities (cash equivalents and account receivable) because they are considered to be the most liquid forms of current assets. It is calculated by dividing cash and account receivable by current liabilities. Consequently, Current ratio is a comparison of current assets to current liabilities, commonly used as a measure of short run solvency. That is the immediate

ability of the bank to pay its current debts as they come due. It is calculated by dividing current assets to current liabilities.

Current liabilities-to-net worth ratio indicates the amount due to creditors within a year as a percentage of the owners or stakeholders investment. The smaller the net worth the larger the liabilities and the less security for creditors. It is given as current liabilities divided by Net worth. Total liabilities-to-net worth ratio shows how all of a company's debt relates to the equity of the owner or stock holders. The ratio is given by dividing total liabilities to Net worth. The higher the ratio, the less protection there is for the creditors of the business. Fixed asset-to-net worth ratio shows the percentage of assets centered in fixed assets compared to total equity. It is computed by dividing fixed asset to Net worth of an entity.

### **2.3.3 Capital Adequacy Ratio**

Banks have to make decisions about the amount of capital they need hold. Bank capital helps prevent bank failure, a situation in which the bank can not satisfy its obligations to pay its depositors and other creditors and so goes out of business (Mishkin & Eakins, 2006). A bank's capital is the "cushion" for potential losses, which protect the bank's depositors or other lenders. Capital adequacy ratio shows a bank's strategy regarding its capital structure and is measured as the capital (Tier I+ Tier II) divided by firm's Risk weighted Assets.

Two types of capital are measured for this calculation. Tier one capital is the capital in the bank's balance sheet that can absorb losses without a bank being required to cease trading. It consists of equity capital and disclosed reserves. Tier two capital can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors. Tier two capital comprises of undisclosed reserves, general loss reserves and subordinate term debts. CAR determines the capacity of a bank in terms of meeting the time liabilities and other risk such as credit risk, market risk, operational risk, and others. It is a measure of how much capital is used to support the banks' risk assets.

#### **2.3.4 Other Measures of Bank Financial Performance**

Based on the Central Bank's regulation, all advances and loans are classified into two Categories: performing assets or loans and non-performing assets or loans (NPL). NPL is the loans that have overdue in the account and the due interest are not recovered regularly. The maximum NPL allowed for a healthy bank is 5%, while net interest margin measures how large the spread between interest revenues and interest costs that management has been able to achieve by close control over earning assets and the pursuit of the cheapest sources of funding (Rose and Hudgins, 2006, p. 151).

Loan-to deposit ratio (LDR) is a traditional measure of bank's liquidity. It indicates the extent to which deposits are used to meet loan request. LDR also plays an important role to banks as an intermediary institution to connect the excess funding holders and the users in their economic activities. Therefore, the optimum level should be maintained, so that the necessary liquidity needed and their function as an intermediary should be

fulfilled. Total loan is defined as the sum of the performing loans, non-performing loans, and deducted by allowances (provision for possible losses).

## **2.4 Empirical Studies on Mergers and Acquisitions**

### **2.4.1 International Studies**

Shanmugam (2003), conducted a study on mergers and acquisitions of banks in Malaysia and found out that that merging on its own cannot achieve strong efficient and competitive banking systems. However, it can be supplemented by other measures such as enhancing the expertise and professionalism of the banking personnel and bringing about more effective corporate governance to further increase the resilience and competitiveness of the banking institution in the context of the challenges of the globalised and liberalized environment.

Jerold and Steven (2005) carried out a study on planning for a successful mergers and acquisitions on Australia firms. The major objectives of the study were to find out the relationship between corporate strategy and M&As strategy, the criteria organizations used to screen M&As targets and whether M&As experience improved performance. Data from six major industries of about 200 firms was used in this study. They adopted a qualitative research approach. The interviews were undertaken with experienced senior managers of Australian listed companies and Australian based United States of America subsidiaries. The findings were that M&As were essential to growing market share in emerging markets. Acquisitions were a strategy to quickly position themselves for changes that occur in the information technology market and to reduce product time to

market. M&As were used as a method to obtain strategic objectives and to meet the firms' financial criteria. They also found capability, scale, and geographical presence as the three major criteria to screen M&As. Jerold and Steven assertion that M&As experience improved performance and obtain a strategic objective is attainable.

Tambi (2007) evaluated the impact of mergers and amalgamation on performance of Indian companies through a data base of 40 companies selected using paired t-test for mean difference for four parameters: Total performance improvement, economies of scale, operating synergy and financial synergy. The conclusion of the study shows that Indian companies are no different from the other companies in other Global environment and mergers have failed to contribute positively in performance improvement.

Aduloju, et al.(2008) carried out survey on recapitalization, Mergers and Acquisition of the Nigerian insurance industry and one of their key objectives was to ascertain whether insurance companies can improve their performance through mergers and acquisitions. The survey involved 22 insurance companies listed on Nigeria Stock Exchange and found that mergers would lead to growth by generation of large capital base to enhance technical marketing, management and business opportunity, efficiency, image and reputation. It would also strengthen the local insurance firms to be able to underwrite oil and gas risks. All factors would lead to better performance after mergers.

Viverita (2008), conducted a study on the impact of mergers and acquisitions on commercial banks in Indonesia. By comparing the financial performance for seven years

before and after the merger, the study revealed that mergers did increase bank's ability to gain profits. This was indicated by the increase in the performance indicators such as return on asset, return on equity, net interest margin, capital adequacy ratio and non-performing loans. In contrast, it is also found that merged banks could not improve their ability to carry out its function as an intermediary institution, indicated by declining the ratio of loans to deposits collected from their customers that could be due to slower activities in the real sectors.

Muhammad (2011), conducted a study of post-merger profitability of a Royal Bank of Scotland (RBS) and found out of 20 ratios, score for the 'better' ratios after merger was just 6 (i.e. 30% only). The study thus concluded that the merger of RBS failed to pull up its profitability. From the ratio analysis it was proved that the RBS merger proved to be a failure in banking history. This study is irrelevant because it doesn't support theory of efficiency which asserts that M&As are executed to achieve net gains from synergies (Trautwein, 1990). The efficiency gains accrue from operating synergies which are achieved through the transfer of knowledge and economies of scale.

#### **2.4.2 Local Studies**

Korir (2006) carried out a study on Effects of Mergers on Financial Performance of Companies listed at the Nairobi Stock Exchange. The objective of this study was to find out the effects of mergers, if any on performance of companies listed at the NSE. The timeframe observed was from 1994-2005. The population used in this study was 48 companies listed on the Nairobi Stock Exchange. Shares of some of these sampled

companies were heavily traded at the NSE. A sample of 20 listed companies was contacted, it consisted of 10 companies that merged and 10 that never merged and were in operation for the period counterparts were merged. Measures of performance used were turnover, volume, market capitalization and profit. They were analyzed on the basis of descriptive statistics. Descriptive statistics describe data on variables with single numbers while analysis of variance (ANOVA) tests for any significance difference between mean values of variables. It was concluded that mergers improves performance of companies listed at the NSE. This is explained by low variation in paired t-test below 0.005 for turnover, volume, market capitalization, and profit. This study is relevant because reinforce the theory of efficiency where M&As are executed to achieve net gains from synergies. The efficiency gains accrue from operating synergies which are achieved through the transfer of knowledge, economies of scale and economies of scope.

Mukele (2006) conducted a study on the factors that determine the choice of M&A partners in Kenya. He was looking to establish the determinants of choice of firms that had been through Mergers from 2001 to 2004. He found that firms in the market that had opted for mergers amounted to 53.1% while those that opted for acquisitions were 46.9%. He concluded that the factors that determined the choice included knowledge transfer and management, cultural distance, organizational distance, resource redeployment and revenue based synergistic considerations.

He found that the effects after M&A included asymmetry between the firms in terms of joint decision making and political process, location specific acquisition performance, management styles, reward and evaluation systems. In addition, he found that ownership

was divided between locally owned (34.3%), foreign (34.4%) and a portion of both locally and foreign owned (31.3%). Other findings in the study showed that firms will get into an M&A with a partner who will facilitate transfer of knowledge based resources. Partners were also concerned about cultural differences and similarities. It was found that firms that had matching core values were the preferred partner. The study also showed that the closer the organizational distance the better because business practices, institutional values, corporation and professional cultures are similar. It was concluded that anticipated economies of scale drive firms into M&As. Resource deployment and revenue based synergistic considerations showed that M&As expected increase in the market average through geographic cover and extension of production line.

Marangu (2007), studied the effects of mergers and acquisitions on financial performance of non-listed commercial banks in Kenya. The research focused on the profitability of non-listed banks which merged from 1994 to 2001 and used four measures of performance: profit, return on assets, shareholders equity/total assets and total liabilities/total assts. Comparative analysis of banks performance for the pre and post merger period was conducted to establish whether mergers lead to improved financial performance before or after merging. The results of the data analysis showed that three measures of performance: profit, return on asset and shareholders equity/total assets had values above the significance level of 0.05 with exception of total liabilities/total assets. His results concluded that there was significant improvement in performance for the non-listed banks which merged compared to non-listed banks that did not merge within the



same period .This confirms the theoretical assertions that firms derive more synergies by merging than by operating as individual outfits.

Njoroge (2007) in a survey of Mergers and Acquisitions experiences by commercial banks in Kenya come up with findings on enhanced profitability. From the findings carried out on nine respondent banks, she observed that 33% of banks agreed that post acquisitions activities enhanced 11% strongly agreed, 33% neither agree nor disagreed and 22% disagreed. So in essence the conclusion was that mergers and acquisitions is the strategy of enhancing profitability and thus firm performance.

Nyagah (2007) conducted a study on Doctors Perception of Mergers and Acquisitions in the Pharmaceutical Industry Kenyan based firms in 2007. The objective of the study was to determine the perception of doctors on M&As on the pharmaceutical industry in Kenya. The population of interest in this study comprised of medical doctors in Nairobi. According to the Kenya Medical Directory in 2006 there were 900 practicing medical doctors in Nairobi. A sample size of 50 doctors was considered fairly adequate and representative. The data was analyzed using descriptive statistics to determine doctor's perception of M&As. The findings were that respondents strongly agreed that merged pharmaceutical companies in Kenya were profit and market oriented. They also agreed that the companies were domineering and arrogant. However, they disagreed with the fact that merged pharmaceuticals companies are caring partners. It is important to evaluate how the perception of these doctors affects the success of pharmaceutical mergers

Ndora (2010) studied the effects of mergers and acquisitions on the financial performance of insurance companies of Kenya. A sample of six insurance companies that had merged between the year 1995 and 2005 were used from a population of 42 registered insurance companies in the republic as at that time. To measure financial performance, profitability ratios, solvency ratios as well as capital adequacy ratios were computed and the results tabulated. The findings indicated an increased financial performance by the firms for the five years after the merger than it was five years before the merger. It was concluded that mergers and acquisitions would result to the increase in financial performance of an insurance company.

## **2.5 Summary of Literature Review**

Performance is ability to sustain income, stability and growth. It is measure of relative investment and can be relative to one of the following factors; assets, capital adequacy, liability, number of employees and other size matters. M&As do not automatically create value for shareholders because some also fail. Failure occurs and it deteriorates the wealth of the shareholders when the integration process for mergers and acquisitions does not work in proper flow.

Review of empirical studies shows different and inconclusive results have been obtained on financial performance of company's pre and post merger activities hence need to carry further research in the area for longer period. Consequently, M&A in Kenyan banking industry are expected to increase due to regulatory measures put in place by government.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the methodology that was used; discuss research design, the target population, data collection instruments and data analysis procedure that was used in conducting the study.

#### **3.2 Research Design.**

This study took on event study. An event study is designed to investigate the effect of an event on a specific dependent variable. It is therefore appropriate in carrying out statistical assessment of impact of mergers and acquisitions on value of the firm (Dimson & Marsh,(1986). The event as well as the pre and post event windows has to be identified before methodology can be employed. The five years Pre merger average data was compared with five years post merger data for combined institution to determine the changes that occurred in performance following mergers and acquisitions of commercial banks in Kenya.

#### **3.3 Population of the Study**

The population of the study was all the banks that merged during period 1998 to 2013.In total, there were 14 banks that merged hence formed the researcher's population.(See Appendix1)

### **3.4 Data Collection**

According to Ngechu, (2004) there are many methods of data collection. The choice of the tool and instrument depends mainly on the attributes of the subject, research topic, problem question, objective, design, expected data and results. This is because each tool and instrument collects specific data. This study primarily used secondary data from audited annual reports of accounts for the respective banks over the period. Financial data from balance sheet, income statement and cash flow statement. The secondary data was obtained from published performance facts, CBK, central bureau of statistics (CBS) and annual statutory reports derived from merged commercial banks websites and actual visiting head offices for annual financial reports. This involved calculating and analyzing data relating to three performance ratios: ROA, ROE and C/I from the published financial statements and reports for the merged banks for the period under study.

### **3.5 Data Analysis**

Quantitative and qualitative technique was applied. The data was analyzed using descriptive statistics to describe variables under investigation. Descriptive statistics describe data variables with single members such as arithmetic mean, median, maximum, minimum, standard deviation, percentages and rankings. Katuu J. M. Used similar data analysis technique in his 2003 study. Statistical package for social sciences (SPSS) software was used. The time frame for analysis was 1998 to 2013. The performance of these banks was analyzed five years prior and after merging. The annual financial statements of the merged banks that meet this condition was analyzed to determine performance by using the pre- and post-merger five years period. Premerger average data

was compared with post merger data for combined institution to determine the changes occurred in performance following mergers and acquisitions. The three performance indicators namely ROA, ROE and C/I was used. The result was then presented using tables for ease of understanding. This also allows for the interpretation of the findings generated and a recommendation from the findings.

### 3.5.1 Measures of Performance

Measures of performance were Return on Assets (ROA), Return on Equity (ROE) and Cost to Income ratio (C/I).

$$\text{ROA} = \frac{\text{Earning after Interest and Tax}}{\text{Total assets employed}} * 100 \dots\dots\dots(1)$$

Total assets employed

$$\text{ROE} = \frac{\text{Earning after Interest and Tax}}{\text{Ordinary shareholder's funds}} * 100 \dots\dots\dots(2)$$

Ordinary shareholder's funds

$$\text{C/I} = \frac{\text{Total Operating Expense}}{\text{Total Income}} * 100 \dots\dots\dots(3)$$

Total Income

### 3.5.2 Hypothesis Testing

The student's t-test was applied to test the hypothesis. Most t-test statistics have the following form:

$$T = Z/s \dots\dots\dots (1)$$

Where Z and S are functions of data. Typically, z is designed to be sensitive to alternative hypothesis i.e. its magnitude tends to be larger when alternative hypothesis is true. S is a scaling parameter that allows distribution of T to be determined.

The assumption underlying a t-test is that Z follows a standard normal distribution under null hypothesis with P degrees of freedom under null hypothesis, where P is a positive constant; Z and S are independent.

#### 3.5.2.1 One Sample t-test

In one sample t-test, the following is true;  $t = \bar{X} / (\hat{\sigma} / \sqrt{n})$ , .....(1)

Where  $\bar{X}$  the sample is mean of the data;  $n$  is the sample size and  $\hat{\sigma}$  is the population standard deviation of the data; s is the sample standard deviation.

### 3.5.2.2 Independent two Sample t-test

When there are equal sample sizes and equal variance, then t-statistics can be calculated as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{X_1X_2} \cdot \sqrt{\frac{2}{n}}} \dots\dots\dots(1)$$

Where

$$s_{X_1X_2} = \sqrt{\frac{1}{2}(s_{X_1}^2 + s_{X_2}^2)} \dots\dots\dots(2)$$

$s_{X_1X_2}$  is grand standard deviation or pooled standard deviation; 1= group one; 2=group two. The denominator of  $t$  is the standard error of difference between two means. For significance testing, the degrees of freedom for this test is  $2n-2$  where  $n$  is the number of participants in each group.

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Introduction**

This chapter covers data presentation and analysis. This study was carried out to examine the impact of mergers and acquisitions (M&A) on the performance of banks in Kenya. To achieve the objective of the study, commercial banks' performance regarding return on assets, return on equity and cost to income ratio before and after M&A. Data was collected from banks annual reviews five years before merger and five years after and analyzed using SPSS (Version 20).

#### **4.2 Descriptive Statistics**

Descriptive analysis was done to look at the distribution of the variables considered in this research: return on assets (ROA), return on equity (ROE) and cost to income (C/I) ratio. The descriptive statistic considered mean and standard deviation. Mean was used to establish the average value of the data and standard deviation gave the dispersion in the data.

##### **4.2.1 CFC-Stanbic Bank Ltd**

The study sought to establish the average ROA of CFC bank and Stanbic Bank Ltd and combined CFC Stanbic (Appendix I). Both firms had a positive ROA before a merger of 6.01, 14.37, 24.14, 24.66 and 14.8 for years 2004 to 2008. CFC Stanbic Bank had a positive ROA after the merger, ROA of the new institution posted mixed signals with



lowest of 9.5 in 2011 and highest of 24.7 in 2013. Results presented in Appendix II shows that the mean ROA during pre-merger was 14.184 and 13.93 in post-merger period. Thus, CFC-Stanbic had a higher return on asset before merger. Additionally, CFC Stanbic Bank had a positive ROE of 0.9, 1.95, 1.85, 2.1 and 2.15 for the period 2004 to 2008 respectively. After the merger, ROE of the new institution posted mixed signals. After the year of the merger, ROE dropped to 0.8 in 2009 followed by upward momentum of 1.31, 1.4 and 2.1 for 2012 before dropping to 1.6 in year 2013.

The C/I before the merger shown some declining pattern of 83.37 in 2004 to 50.16 to 2007 before it gains upward momentum during year of merging. After the merger there was sharp increase to 79.1 which is followed with dropping trend of 75.5, 68.16, 62.9 and 47.6 year 2010 to 2013 respectively. (Appendix II).

#### **4.2.2 Co-operative Bank of Kenya**

Co-operative Bank of Kenya before the merger had both positive and negative ROE. After the merger there was sharp upward increase up to high of 23.7 in 2007 and low of 6.0 in 2004 (Appendix II). The average of two institutions before the merger posted positive of 5.85 and 6.4 in 2001 to 2002 respectively which is quite lower of individual institutions. Before the merger ROA exhibited some shaky and mixed signals with negative of 6.45 in 2000 and highest of 1.03 the year of merging in 2002. After merging there was positive upward trend of 0.4, 0.44, 0.8, 1.4 and 2.3 in 2003 to 2007 respectively. Mean performance in terms of ROA was -1.065 during pre-merger which changed to 1.068. Thus, Corporate Bank had a negative return on asset before merger

signifying loss and positive ROA after merger. Therefore, merger improved Co-Operative Bank's financial performance.

The Co-Operative Bank before merger had average negative C/I of 15.3 and 88.6 in 1999 to 2000 respectively after which the ratio positively increases to 88.5 and 90 in 2001 to 2002 respectively during the year of merging. After merging the ratio of C/I decreases at average trend of 94.1, 91.5, 86.5, 82 and 72 in 2003 to 2007 respectively.

#### **4.2.3 Paramount Universal Bank**

Universal Bank Ltd and Paramount Bank Ltd merged to form Paramount Universal Bank Ltd. The ROA of Universal Bank Ltd and Paramount Bank Ltd shown mixed signals before merger on average posting an ROA of -19.11 which improved to 1.1. However, the performance (ROA) after merging improved significantly to 2.18 and 2.33 in the second and third year respectively. The same was the case with the average ROE of the two banks before and after merger. ROE improve from 0.69 during the merger year to 2.03 in the third year after merger. C/I ratio reduced from 81.79 to 61.81 in the fourth to a year before merger respectively. This increased to 79.68 a year after merger (Appendix II).

#### **4.2.4 National Bank of Kenya**

In the case of National Bank of Kenya Ltd and Kenya National Capital Corporation which merged in 2000, the ROA remained positive during pre and post-merger period. However the highest ROA of 1.65 was got during the third year after merger (Appendix II). The ROE remained positive for the two banks. The highest ROE of 1.65 and 1.85 was established in the fourth and fifth year respectively after merger. Regarding C/I

performance, the results posted after merging were positive though with up and down movements.

#### **4.2.5 Southern Credit Bank**

The ROA of Bullion Bank Ltd and Southern Credit Bank Corporation Ltd was positive before merging on average though this relationship seemed to significantly decline after merging (Appendix II). The two banks posted average ROA of 0.36 before merger and 2.85 one year after merger which improved to 3.95 in the second year.

Regarding ROE, Bullion Bank Ltd and Southern Credit Bank Corporation Ltd posted mixed signals during pre-merger, with the lowest of -1.90 in 1999 of which after merging it gained upward performance; posting 2.85 and 3.95 during the first and second year after merger. C/I ratio was positive during and after posting for the mentioned banks posting 76.39 and 78.25 during one year before and after merger respectively (Appx II).

#### **4.2.6 Citibank NA**

The ROA of Citibank and Amro Bank Ltd was positive before merging on average though this relationship seemed to significantly decline after merging. The two banks posted average ROA of 1.1 before merger and 3.06 one year after merger which improved to 7.85 and 9.64 in the second and third year respectively. Citibank and ABN Amro Bank had on average positive ROE and maintained an upward momentum after merging. The C/I ratio for the two banks were positive during and after posting for the mentioned banks posting 84.05 and 83.39 during one year before and after merger respectively (Appx II).

#### **4.2.7 I&M Bank Ltd**

Biashara Bank and I&M Bank Ltd posted mixed signals before merging this lowered the average of two banks but after merging there was a progressive trend. The ROA was 0.6 a year before merger which improved to 0.85 after merger. The ROE of Biashara Bank and I&M Bank was both positive and negative before merging after merging they posted positive ROE: 0.32 a year before merger, and 0.26 and 0.35 in the first and second year after merger respectively (Appendix II). On the case of C/I ratio, the results remained positive before and after merging. However, the C/I ratio reduced after merger reducing from 66.80 and 70.15 to 56.89 and 49.29 two year before and after merger respectively.

#### **4.2.8 Commercial Bank of Africa**

First American Bank Ltd and Commercial Bank of Africa Ltd had positive rising ROA before the merger; rising from 2.91, 3.38 and 3.84 during the last three years before merger. After merging, Commercial Bank of Africa gained an upward momentum of 3.21, 3.52, 4.12 and 4.56 in four years after merger respectively. ROE on average posted positive during pre-merger, this trend remained positive during and after merging for both banks. The ROE was 2.08 one year before merger which improved to 2.95 in the ensuing year (Appendix II). The C/I of First American Bank Ltd and Commercial Bank of Africa Ltd was a positive during pre and post merging. The C/I ratio improved from 70.77 one year before and 71.87 after merger.

#### **4.2.9 EABS Bank Ltd**

On average, East Africa Building Society and Akiba Bank Ltd had negative ROA in first two years. Average ROA for banks was 0.40 which improved to 0.55 one year before and

after merger and further to 0.86 in the second year (Appendix II). The ROE value was 0.77 and 0.76 two years before merger. After the merger EABS Bank Ltd posted positive ROE on fluctuating trend but above average: 0.68 in the first year and 0.40 in the third year and 0.68 in the fifth year. The C/I of East Africa Building Society and Akiba Bank Ltd was positive during pre and post merging although the results were within a low of 29.82 and high of 46.50. (Appendix II).

#### **4.2.10 Bank of Africa Kenya**

Though the ROA of Credit Agricole Indosuez (K) Ltd & Bank of Africa Kenya Ltd was positive before merging, this relationship declined after merging as the results were below the average of two banks. ROA in the last two years before after merger was 3.5 and 3.12 which reduced to 1.53 and 1.55 after merger respectively.

The ROE of two banks remained positive but with no significant change after merging: 1.1 and 2.00 in the last two years before after merger and 1.05 and 0.98 in the first two years after merger respectively. The C/I ratio of the two banks was 70.58 and 72.25 during the last two years before merger and 73.25 and 80 two years after merger respectively. (Appendix II).

#### **4.2.11 Giro Commercial Bank Ltd**

Appendix II shows that the pre M&A period for Giro Bank Ltd and Commerce Bank of Kenya's had a positive ROA of 0.84 and 0.88 in the second and first year before merger which increased to 1.20 and 1.78 in the first and second year after merger. With regards to ROE, Giro Commercial Bank Ltd pre merger ROE was 9.59, 18.25, 15.75, 29.16 and 32.25 for years

1994 to 1999 and post merger ROE was 10.13, 12.64, 11.42 and 10 respectively. Consequently, C/I for pre merger years was 27.63, 15.95, 15.15, 29.16, 32.25 respectively while post merger period C/I ratio had a mixed reaction declining the second year after a merger and increasing in year 2002.

#### **4.2.12 Guardian Bank Ltd**

The study sought to establish the “Return on Equity (ROE) Ratio”, ROA and C/I of pre and post merger between Guilders international bank and Guardian Bank limited. The premerger ROA was 0.13, -1.15, -5.9, -2.18 and 0.49 respectively. This shows a mixed reaction on performances in negative and positive figures in year 1994 to 1999. Post merger ROA was 0.56, 0.25, 1.1, 1.21 and lastly 1.35 for year 2000 to 2004 indicating a positive increase in ROA over post merger period. ROE for premerger period was -1.2, -3.29, -11.5, 5.82 and 7.2. Notably, post merger depicts positive ROE which increases from 3.06, 7.86, 9.64, 6.7 and 6.07. C/I ratio for pre merger period was 1.76, 5.34, 10.77, 21.9 and 24.5. Post merger period was 34.52, 26.72, 30.22, 40.12 and 38.52. This shows a decline in C/I ratio due to increase in operational synergies after the merger period. (Appx II).

#### **4.2.13 Kenya Commercial Bank Limited**

The study sought to establish the ROA of the performance of Kenya Commercial Finance and Kenya commercial bank before and after merger. The average ROA for two banks before the merger was 0.1, 0.74, 1.84, 1.34, 1.92 respectively and average ROA after merger was 1.05, 0.85, 1.13, 2.65, 1.95. After merger period posted a mixed in fourth year showing a drop of 1.5. Also ROE for pre merger period had are 3.35, 3.87, 3.81, 3.27 and

4.33. Post merger ROE was 1.05, 0.85, 1.13, 2.65 and 1.95. In second year after a merger ROE dropped 0.85 before picking ground in third year. C/I for pre merger period are 38.01, 45.89, 40.69, 52.15 and 51.5 respectively. "C/I (Cost to Income) Ratio" the study found there is increase in C/I ratios in second year and later decreasing in third year this is due to increase in cost of operation. Post merger C/I ratios was 63.25, 56.78, 55.56, 70.12 and 68.55. C/I ratio decreases due to increase in efficiency in operation thus increasing its economies to scale. (Appendix II)

### **4.3 T-Test for Mean Difference**

The study further conducted an independent t-test to establish whether there is significant differences in the means of the commercial banks' performance in the pre and post-merger period. This tested the null hypothesis that the means of the two groups are not significantly different against the alternative hypothesis that the means of the two groups are significantly different. From the results presented in Table 1.0, pre-merger period had a mean ROE of 2.079 as contrasted by mean of 3.965 in the post-merger period. This depicts that the post-merger period was accompanied by higher performance than pre-merger period.

The significance of this assertion was tested using t-test. Levene's Test for Equality of Variances tells if the two groups (pre and post-merger period) have approximately equal variance on the dependent variable. If the Levene's Test is significant (the value under "Sig." is less than .05), the two variances are significantly different. If it is not significant (Sig. is greater than .05), the two variances are not significantly different; that is, the two

variances are approximately equal. From the Table, the Levene's significance is  $p = .475$ , which is more than 0.05; the variances are not approximately equal.

Following from Levene's test, a T value of -3.129 is established at 7.6 degrees of freedom. A t-significance value of  $p = .015$  was also established; thus, there is a significant difference between the two groups (the significance is less than .05). Therefore, the findings establish a significant difference in performance of commercial banks in pre and post-merger period. Read together with mean statistics, the findings illustrate that applicants of post-merger banks had a higher return on their equities than pre-merger banks.

#### 4.3.1 Return on Equity

**Table 1: ROE**

Period	Mean	STDEV	Levene's Test		t-test for Equality of Means			
				F	Sig.	T	df	Sig.
Pre-Merger	2.079	1.0628	Equal variances assumed	.562	.475	-3.129	8	.014
Post-Merger	3.965	.82876	Equal variances not assumed			-3.129	7.551	.015

**Source: Researcher, 2014**

#### 4.3.2 Return on Asset

The results presented in Table 2 shows that pre-merger period had a mean ROA of 1.591 while the post-merger mean was 2.689. This depicts that the post-merger period had



higher performance than pre-merger period. The Levene's significance is  $p = .397$  which is more than 0.05; the variances are not approximately equal. Besides, T value of -1.572 was established at 6.8 degrees of freedom and  $p = .161$  significance level. This shows that there is no significant difference between the two groups (the significance is more than .05). Therefore, the findings establish insignificant difference in performance of commercial bank in pre and post-merger period.

**Table 2: ROA**

Period	Mean	STDE V	Levene's Test			t-test for Equality of Means		
				F	Sig.	T	df	Sig.
Pre-Merger	1.591	1.307	Equal variances assumed	.801	.397	-1.572	8	.155
Post-Merger	2.689	.856	Equal variances not assumed			-1.572	6.897	.161

Source: Researcher, 2014

### 4.3.3 Cost to Income

The results presented in Table 3 shows that pre-merger period had a mean C/I of 55.812 while the post-merger mean was 64.271. This depicts that the post-merger period had higher cost to income ratio than pre-merger period. The Levene's significance is  $p = .070$  which is more than 0.05; the variances are not approximately equal. Besides, T value of --3.260 was established at 5.6 degrees of freedom and  $p = .019$  significance level. This shows that there is a significant difference between the two groups (the significance is

more than .05). Therefore, the findings establish a significant difference in performance of commercial bank in pre and post-merger period as measured by cost to income ratio.

**Table 3: Cost to Income**

Period	Mean	STDE V	Levene's Test			t-test for Equality of Means		
				F	Sig.	T	df	Sig.
Pre- Merger	55.812	5.279	Equal variances assumed	4.367	.070	-3.260	8	.012
Post- Merger	64.271	2.406	Equal variances not assumed			-3.260	5.59 2	.019

Source: Researcher, 2014

#### 4.4 Summary of Major Findings and Interpretation

The findings establish that M&As impact on the performance of Banks. Using the accounting based approach, banks that have undertaken M&As have exhibited posting better results than those that have not. Though the results showed mixed signals before merging, for instance CFC Stanbic, it had an upward trend of ROE up to 2.7 after which it dropped to 1.07 during the year of merging, the same results reflected on ROA. In addition, C/I before merging was reflecting a positive decrease trend to the low of 50.16 of which after merging the same trend was reflecting posting a low trend of 47.6 in 2013. The t critical at 5% level of significance at k= 4 degrees of freedom is 6.875. Since all t calculated values were above 6.875 it then follows that all the ratios were significant in

explaining the behavior of ratios in explaining the performance of organization before and after the merger/acquisition.

Bank mergers and acquisition may enable banking firms to benefit from new business opportunities that have been created by changes in regulatory and technological environment. Efficiency gains can be made by bank by integrating their combined resources and thus reduce operating cost, or achieve greater revenues, or reduce risk to increase value. For instance, Co-operative Bank of Kenya Ltd posted positive C/I of 94.1, 91.5, 86.5, 82.0 & 72.1 which is an impressive trend that is within average after merging. This is in line with the results of before merging which was negative of 32 & 49 in 1999 & 2000 respectively.

The success of merger is dependent upon synergy gains created after the merger and overall performance of bank, the financial performance of the Co-operative Bank of Kenya Ltd have been improved after the merger and was affected positively, the reaction comes out in terms of Return on Assets, Return on Equity and C/I Ratio though average cost in medium sized banks being slightly more cost scale efficient than either large or small banks. But in the case of the Stanbic Bank with the Stanbic Holdings Bank, the ROE were not positively affected by merger and show no significant change between pre and post merger performance and may required due time for showing profitability.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the results of the study and the main conclusions drawn from the analysis and finding of the data in Chapter Four on impact of mergers and acquisition on financial performance of commercial banks in Kenya. The study gives recommendations on what the bank management can do to improve their financial performance of banks following a merger or acquisition. The recommendations are also presented based on the objective of the study after which recommendations for further studies are drawn.

#### **5.2 Summary**

From the findings of the study there was an increase in mean return on equity after merger depicted by increase in the mean from 2.079 on pre merger period to 3.965 on the post merger period. There was notable increase in the mean difference which is clear indication of increase in return on equity, from the study also Levene's test, a T value of -3.129 is established at 7.6 degrees of freedom. A t-significance value of  $p = .015$  was also established; thus, there is a significant difference between the two groups (the significance is less than .05). Therefore, the findings establish a significant difference in performance of commercial banks in pre and post-merger period.

The study also found an increase in the return on assets before and after merger, from the results it was found that increase in a mean on ROA of 1.591 while the post-merger mean

was 2.689. This depicts that the post-merger period had higher performance than pre-merger period.

Consequently, from the study Cost to income had a mean C/I of 55.812 while the post-merger mean was 55.812. This depicts that the pre-merger period had higher cost to income ratio than post-merger period. The smaller cost to income ratio the better the performance. The significance is  $p = .070$  which is more than 0.05; the variances are not approximately equal. Besides, T value of  $-3.260$  was established at 5.6 degrees of freedom and  $p = .019$  significance level. This shows that there is a significant difference between the two groups (the significance is more than .05). Therefore, the findings establish a significant difference in performance of commercial bank in pre and post-merger period as measured by cost to income ratio. Thus mergers and acquisitions do influenced the firm performance positively.

### **5.3 Conclusion**

From the findings on the testing of the significance of the independent variable before and after merger, the study found that there was improvement in financial performance after bank merger. The data on various aspects of financial performance and merger of commercial banks was subjected to t test using statistical package for social science to help to calculate significance of the three variables after the merger. The calculated mean and t values before and after merger were compared. The study found that the values after mergers were greater than those before merging. This means that there is a significant difference in banks performance before and after a merger. Thus the study found that there is improvement in financial performance after banks merger.

## **5.4 Limitation of the Study**

The study only considered mergers and acquisitions as a factor affecting financial performance of commercial banks in Kenya. Other factors that are affecting performance of commercial banks are: size, market share, the performance of economy, government regulations were not considered.

This study focused primarily on the banking sector and used a representative sample of 15 banks which merged or acquired in Kenya yet there is population of 36 commercial banks that have merged or been acquired over years to date.

The study also was limited to effects of mergers and acquisitions on financial performance of commercial banks in Kenya yet there are other industries in our economies such as insurance and manufacturing companies which could have been studied.

There are many challenges facing the formation of mergers. A study should be carried to find out the challenges on formation of mergers and many firms had not formed mergers despite the advantages got from formation of the mergers.

Consequently, secondary data was collected from firm financial reports for five years before and five years after merger. The study was also limited to the degree of precision of the data obtained from secondary source. While the data was verifiable since it came from central bank publications, it nonetheless could still be prone to shortcomings.

## **5.5 Recommendations**

### **5.5.1 Policy Recommendations**

From the research, it is clear that a lot of work needs to be employed by researchers and Central bank of Kenya as regulator of banks in relation to further research on mergers and acquisitions. Given that, there has been a push by CBK in the right of protection of customer deposits in increasing regulations. Also banks with weak and unstable capital base should seek for merger to stabilize its base. Through merger and acquisitions commercial banks will be able to extend their market share and increase their revenue thus increasing its profitability and financial soundness of the commercial banks.

The study also recommends that commercial banks need to deepen their services and statistics indicates that less than 50% of the population have access to financial services. With increased in financial deepening, the financial institutions will be in position to improve their financial performance.

### **5.5.2 Suggestions for Further Research**

Further research should be carried out on the performance of merged banks before and after the merger for a longer period to determine whether there is significant impact of mergers on bank performance. More variables both the quantitative and qualitative should be included in the studies to come up with a more comprehensive conclusion.

A study should be carried to find out the challenges on formation of mergers and why many firms had not formed mergers despite the advantages got from formation of the mergers.

The same study on effects on financial performance of company's i.e. Study should be carried out in other firms in different industries to find out if the same results would be obtained. This study focused primarily on the banking sector.

Further research should be carried out using other measures of financial performances such as net interest margin (NIM) and earnings per share (EPS) among others so as to have a wide range of results from which studies can interpret the effects of mergers and acquisitions on the financial performance of commercial banks.

Further research should be conducted on all the commercial banks that have either merged or acquired over the years given that they are not many and their data is readily available in central bank so as to get a perfect image of the effect of mergers and acquisitions on financial performance of commercial banks in Kenya can be gotten separate from limitations that sampling brings along.



## REFERENCES

- Banerjee, A. and Eckard, E. (1998): Are Mega-Mergers Anticompetitive? Evidence from the First Great Merger Wave, *Journal of Economics*, 29.
- Block K., Hirt & Danielson.(2009), *Foundations of Financial Management*. Thirteen Edition, McGraw-Hill International edition.
- Brigham E.F & Daves P.R. (2009), *Intermediate financial management*, Tenth Edition, South-Western Cengage Learning, Natorp Boulevard Mason, USA.
- Chatterjee, S., (1986) Types of Synergy and Economic Value: The Impact of Acquisitions on Merging and Rival Firms, *Strategic Management Journal* 7, 119-139.
- Chesang, C., (2002). *Merger Restructuring and Financial Performance of Commercial Banks of Commercial Banks in Kenya*. University of Nairobi e-repository, volume 22170.
- Dimson, E. and Marsh. P.(1986). Event study methodologies and the size effects. *Journal of Financial Economics*, vol.17:pp.113-142.
- Dodd, (1980). Merger proposals management discretion and stockholder wealth, *Journal of Financial Economics* 8,105-138.
- Dong, M., D. Hirschleifer, S. Richardson, and S.H. Teoh, (2006) Does investor misevaluation drive the takeover market? *Journal of Finance* 61(2), 725-762.
- Feroz, E.H, S. Kim and R. Raab, 2005, Performance Measurement in Corporate Governance: Do Mergers Improve Managerial Performance in the Post-Merger Period?, *Review of Accounting and Finance* 4,pp.86-101.
- Fluck, Z. Lynch, A.W. (1999), "Why Do firms merge and then Divest? A Theory of Financial Synergy" ,and *journal of Business*, vol. 72 No.3,pp.319-46.

- Gugler, K., Mueller, D., Yurtoglu, B., and Zulehner C. (2003): The effects of mergers: An international comparison, *International Journal of Industrial Organization*, 21(5), 625-653.
- Hasbrouck, J., (1985) The Characteristics of takeover targets: Q and other measures, *Banking and Finance Journal*, 9, 351-362.
- Hayward, M. L. A., and D.C. Hambrick, (1997) Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42: 103-127.
- Hitt, M.A., JS. Harrison, and R.D. Ireland, (2001) *Mergers and acquisitions: A Guide to Creating Value for Stakeholders*, Oxford University Press, Oxford.
- [http://www.centralbank.go.ke/financial\\_system/banks/Register.aspx](http://www.centralbank.go.ke/financial_system/banks/Register.aspx) as at April 2014,
- <http://www.kba.co.ke> as at April 2014,
- Kaplan, S.N. and Weisbech, M.S. (1992). The success of acquisitions. Evidence from Divestitures.
- Katuu, J.M. (2003). *A survey of factors considered important in Mergers and Acquisitions decision by selected Kenyan based firms*. M.B.A Project, University of Nairobi.
- Kemal, M, (2011). Post Merger Profitability: A case of royal bank of Scotland. *International Journal of Business and Social Science*, 2, 5, 157-162.
- Korir (2006), "*Effects of mergers on financial performance of companies listed at Nairobi Stock Exchange*". Unpublished MBA Project, University of Nairobi.
- Kumar R. (2009), Post merger corporate performance: An Indian perspective, *Management research news*, Vol 32 (2), pp. 145-157
- Kumar S & Bansal K. (2008), "The impact of mergers and acquisitions on corporate performance in India", *Management decision*, vol.46, issue10 pp.1531-43.
- Lichtenberg, Frank and Donald Siegel (1990), The effects of leveraged buyouts on productivity and related aspects of firm behaviour *journal of financial economics*, vol. 27, No 1, pp.165-194.
- Lubatkin, M. (1987), Mergers strategies and stockholder Value, *Strategic Management Journal*, vol.8 No.1, pp.39-53.
- Mukele W. (2006). *A survey of factors that determine the choice of Mergers and Acquisition partners in Kenya*, Unpublished MBA Project, University of Nairobi.
- Malmendier, Ulrike, and Geoffrey Tate, 2008, Who makes acquisitions? CEO overconfidence and the market's reaction, *Journal of Financial Economics* 89(1), pp. 20-43.

- Manne, H. (1965): "Mergers and the Market for Corporate Control," *Journal of Political Economy*, 73, 110.
- Marangu, P. (2007), *Effects of mergers on financial performance of non-listed banks in Kenya*. University of Nairobi e-repository, volume 21456.
- Mitchell and Mulherin (2006), The impact of industry shocks on takeover and restructuring activity, *Journal of Financial Economics*, Vol.41, pp. 193-229
- Muhammad U (2011), "post-merger profitability:A case of Royal bank of Scotland (RBS)",*International journal of business and social science*, Vol.2, No.5. pp.157-162
- Myers and Majluf (2006), Corporate financing and investment decisions when firms have information that investors do not have, *Journal of financial Economics*, Vol.13,pp.187-221.
- Ndora N (2010), The effects of mergers and acquisitions on financial performance of insurance companies in Kenya. *Unpublished MBA project University of Nairobi*
- Ngechu.M. (2004), *Understanding the research process and methods*. An introduction research methods. Acts press, Nairobi.
- Nyagah B. W. (2007), *Doctors perception of mergers and acquisitions in the pharmaceutical industry in Kenya*. Unpublished MBA Project, University of Nairobi.
- Ochieng (2006), *Bank consolidation and competition-the issue of Kenyan's many small banks*. Marketing Intelligence-Banking industry survey 2006 pg18-24.
- Pandey (2008), Financial management, *Ninth Edition*. Vikas
- Rhodes-Kropf, Matthew, and S. Viswanathan, 2004, "Market valuation and merger waves," *Journal of Finance* 59, 2685-2718.
- Roll, R. (1986), "The hubris hypothesis of corporate takeovers," *Journal of Business* 59,197-216.
- Shanmugam Bala (2003), "Mergers and Acquisition of Banks of Malaysia", *Journal of Banking and Finance Vol.30, No.4 pp.13*
- Singh, J.V., (1986) Performance, slack and risk-taking in organizational decision making. *Academy of Management Journal* 29` : 562-585
- Trautwein,F (1990), Mergers motives and managerial prescriptions, *strategic management journal*, Vol.11 (4), pp.283-295.
- Utton M, (1974), "The measure on the effects of industrial mergers", *Scottish journal of political economy*,vol.21,pp.13-28

Vaara,E. (2002), “The discursive construction of success/failure in narratives of post merger integration” , *Organizational studies*,vol.23 No. 2,pp.211-48.

Veverita M. (2008), “The Effects of Mergers on bank performance:Evidence from Bank Consolidation Policy of Indonesia”, *International Review of Business Research papers Vol. 4*,pp.376-77.

Weston, F.J., M.L. Mitchell and H.J. Mulherin, (2004) *Takeovers, Restructuring and Corporate Governance*, Pearson Prentice Hall, Upper Saddle River, New Jersey.

## APPENDICES

### Appendix 1: Mergers and Acquisitions in Commercial Banks in Kenya

#### MERGERS

No.	Institution	Merged with	Current Name	Date approved
1	Giro Bank Ltd.	Commerce Bank Ltd.	Giro Commercial Bank Ltd.	24.11.1998
2	Guardian Bank Ltd.	First National Finance Bank Ltd.	Guardian Bank Ltd.	24.11.1998
3	National Bank of Kenya Ltd.	Kenya National Capital Corp.	National Bank of Kenya Ltd.	24.05.1999
4	Guilders Inter. Bank Ltd.	Guardian Bank Ltd.	Guardian Bank Ltd.	03.12.1999
5	Universal Bank Ltd.	Paramount Bank Ltd.	Paramount Universal Bank	11.01.2000
6	Kenya Commercial Bank	Kenya Commercial Finance Co.	Kenya Commercial Bank Ltd.	21.03.2001
7	Citibank NA	ABN Amro Bank Ltd.	Citibank NA	16.10.2001
8	Bullion Bank Ltd.	Southern Credit Banking Corp. Ltd.	Southern Credit Banking Corp. Ltd.	07.12.2001
9	Co-operative Merchant Bank Ltd	Co-operative Bank Ltd	Co-operative Bank of Kenya Ltd	28.05.2002
10	Biashara Bank Ltd.	Investment & Mortgage Bank Ltd.	Investment & Mortgage Bank Ltd.	01.12.2002
11	First American Bank Ltd	Commercial Bank of Africa Ltd	Commercial Bank of Africa Ltd	01.07.2005
12	East African Building Society	Akiba Bank Ltd	EABS Bank Ltd	31.10.2005
13	CFC Bank Ltd.	Stanbic Bank Ltd.	CFC Stanbic Bank Ltd.	01.06.2008

#### Acquisitions

No.	Institution	Acquired by	Current Name	Date approved
1	Credit Agricole Indosuez (K) Ltd.	Bank of Africa Kenya Ltd.	Bank of Africa Bank Ltd.	30.04.2004

Source: Central bank website , Created on 24 May 2012

**Appendix II: Five years pre and Post Mergers Performance Data of  
commercial Banks**

		Y-05	Y-04	Y-03	Y-02	Y-01	Y+01	Y+02	Y+03	Y+04	Y+05
Bank of Africa Kenya Ltd	ROA	1.32	3.9	3.21	3.5	3.12	1.53	1.55	1.45	2.05	1.95
	ROE	1.43	1.07	0.92	1.1	2	1.05	0.98	1.25	2.02	2.15
	C/I	63.19	60.94	63.73	70.58	72.25	73.25	80	83.56	79.85	81.56
CFC Stanbic Bank Ltd	ROA	6.01	14.37	18.14	17.6	14.8	9.75	14.7	9.5	11	24.7
	ROE	0.9	1.95	1.85	2.1	2.15	0.8	1.31	1.4	2.1	1.6
	C/I	83.37	65.84	51.19	50.16	58.5	79.1	75.5	68.16	62.9	47.6
Citibank NA	ROA	0.87	1.79	1.09	1.52	1.69	1.23	1.75	1.36	1.64	1.75
	ROE	0.485	1.18	0.95	0.84	1.1	3.06	7.85	9.64	6.7	7.25
	C/I	67.75	71.68	73.5	87.23	84.05	83.39	83.05	86.9	80.55	81.75
Commercial Bank of Africa ltd	ROA	1.28	2.9	2.91	3.38	3.84	3.21	3.52	4.12	4.56	4.85
	ROE	1.59	1.96	1.8	1.6	2.08	2.95	2.75	3.12	3.52	2.95
	C/I	74.82	74.99	59.22	56.02	70.77	71.87	68.29	59.92	73.1	71.87
Co-operative Bank of Kenya Ltd	ROA		0.31	-6.45	0.85	1.03	0.4	0.44	0.8	1.4	2.3
	ROE	1.75	2.51	-0.75	5.85	6.4	7.3	6	10.8	17.6	23.7
	C/I		-15.3	33.6	86.3	88.6	94.1	91.5	86.5	82	72
EABS Bank ltd	ROA	-0.08	-0.51	0.22	0.44	0.4	0.55	0.86	0.77	0.85	1.05
	ROE	0.12	0.28	0.21	0.77	0.76	0.68	0.56	0.4	0.52	0.68
	C/I	29.82	34.83	40.74	43.28	51.05	46.5	43.2	37.23	40.35	46.5
Giro Commercial Bank Ltd	ROA	0.45	1.16	0.94	0.84	0.88	1.2	1.78	0.95	2.53	2.65
	ROE	9.59	18.25	15.72	14.34	14.66	10	13	12.64	11.42	10
	C/I	27.63	15.95	5.15	29.16	32.25	42.09	30.72	29.1	40.05	42.09
Guardian Bank Ltd.	ROA	0.13	-1.15	-5.9	-2.18	0.49	0.56	0.25	1.1	1.21	1.35
	ROE	-1.2	-3.29	-11.5	5.82	7.2	3.06	7.85	9.64	6.7	6.06
	C/I	-1.76	5.34	10.77	21.9	24.45	34.52	26.72	30.22	40.12	38.52
I & M Bank Ltd.	ROA	0.68	-0.68	-1.42	0.24	0.6	0.85	0.82	0.96	1.25	
	ROE		-0.15	0.4	0.55	0.32	0.26	0.35	1.2	0.28	0.56
	C/I	60.57	66.36	55.88	66.8	70.15	56.89	49.29	40.15	43.2	
Kenya Commercial Bank Limited	ROA	0.1	0.74	1.84	1.34	1.92	1.05	0.85	1.13	2.65	1.95
	ROE	3.35	3.87	3.81	3.27	4.33	1.05	0.85	1.13	2.65	1.95
	C/I	38.01	45.89	40.69	52.15	51.5	63.25	56.78	55.56	70.12	68.55

National Bank of Kenya ltd	ROA	1.26	0.83	1.1	0.9	1.14	1.07	0.86	1.65	1.12	1.56
	ROE	-1.96	-0.8	-1.14	0.99	0.69	0.43	1.78	0.95	1.65	1.85
	C/I	77.1	71.32	70.56	72.66	66.54	75.88	86.22	77.74	76.07	78.54
Paramount Universal Bank	ROA	-	-2.1	-1.27	1.1	1.1	0.95	2.18	2.33	1.54	1.75
	ROE	-1.42	-0.2	0.38	0.98	0.81	0.69	1.82	2.03	1.54	1.75
	C/I	78.16	81.79	74.72	70.34	61.81	79.68	77.42	77.11	79.29	81.25
Southern Credit Bank Corp. Ltd	ROA	0.38	4.24	3.2	3.22	3.54	2.33	0.96	4.75	3.2	3.75
	ROE	0.36	0.15	-1.9	0.29	0.36	2.85	3.95	1.2	0.25	1.65
	C/I	74.66	78.78	75.72	69.59	76.39	78.25	65.84	58.46	66.05	65.2

### Appendix III: Return on Assets – Independent T-Test

#### Group Statistics

Period		N	Mean	Std. Deviation	Std. Error Mean
CFC Stanbic Bank Ltd	Pre-Merger	5	14.18400	4.861772	2.174251
	Post-Merger	5	13.93000	6.369223	2.848403
Co-Operative Bank	Pre-Merger	4	-1.06500	3.603013	1.801506
	Post-Merger	5	1.06800	.796944	.356404
Paramount Universal Bank	Pre-Merger	5	-4.0560	8.53492	3.81693
	Post-Merger	5	1.7500	.54895	.24550
National Bank of Kenya	Pre-Merger	5	1.0460	.17714	.07922
	Post-Merger	5	1.2520	.33819	.15124
Southern Credit Bank Corp Ltd	Pre-Merger	5	2.9160	1.47874	.66131
	Post-Merger	5	2.9980	1.43836	.64325
Citibank NA	Pre-Merger	5	1.3920	.39601	.17710
	Post-Merger	5	1.5460	.23797	.10642
I & M Bank Ltd.	Pre-Merger	5	-.1160	.90713	.40568
	Post-Merger	4	.9700	.19613	.09806
Commercial Bank of Africa ltd	Pre-Merger	5	2.8620	.96583	.43193
	Post-Merger	5	4.0520	.68766	.30753
EABS Bank ltd	Pre-Merger	5	.0940	.39507	.17668
	Post-Merger	5	.8160	.18078	.08085
Bank of Africa Kenya Ltd	Pre-Merger	5	3.0100	.99252	.44387
	Post-Merger	5	1.7060	.27328	.12221
Giro Commercial Bank Ltd	Pre-Merger	5	.8540	.25745	.11513
	Post-Merger	5	1.8220	.76418	.34175
Guardian Bank Ltd.	Pre-Merger	5	-1.7220	2.56493	1.14707
	Post-Merger	5	.8940	.46811	.20935
Kenya Commercial Bank Limited	Pre-Merger	5	1.1880	.76949	.34413
	Post-Merger	5	1.5260	.75557	.33790



### Independent T-Test

		Levene's Test for Equality of Variances		T-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
CFC Stanbic Bank Ltd	Equal variances assumed	.374	.558	.071	8	.945
	Equal variances not assumed			.071	7.480	.945
Co-operative Bank of Kenya Ltd	Equal variances assumed	6.311	.040	-1.306	7	.233
	Equal variances not assumed			-1.161	3.236	.324
Paramount Universal Bank	Equal variances assumed	5.713	.044	-1.518	8	.167
	Equal variances not assumed			-1.518	4.033	.203
National Bank of Kenya ltd	Equal variances assumed	4.768	.061	-1.207	8	.262
	Equal variances not assumed			-1.207	6.041	.273
Southern Credit Bank corp.Ltd	Equal variances assumed	.015	.904	-.089	8	.931
	Equal variances not assumed			-.089	7.994	.931
Citibank NA	Equal variances assumed	3.043	.119	-.745	8	.477
	Equal variances not assumed			-.745	6.556	.482
I & M Bank Ltd.	Equal variances assumed	10.680	.014	-2.321	7	.053
	Equal variances not assumed			-2.602	4.461	.054
Commercial Bank of Africa ltd	Equal variances assumed	.066	.804	-2.244	8	.055
	Equal variances not assumed			-2.244	7.226	.059
EABS Bank ltd	Equal variances assumed	3.602	.094	-3.716	8	.006
	Equal variances not assumed			-3.716	5.605	.011
Bank of Africa	Equal variances	2.316	.167	2.832	8	.022

Kenya Ltd	assumed					
	Equal variances not assumed			2.832	4.603	.040
Giro Commercial Bank Ltd	Equal variances assumed	6.971	.030	-2.684	8	.028
	Equal variances not assumed			-2.684	4.896	.045
Guardian Bank Ltd.	Equal variances assumed	4.638	.063	-2.244	8	.055
	Equal variances not assumed			-2.244	4.266	.084
Kenya Commercial Bank Limited	Equal variances assumed	.001	.982	-.701	8	.503
	Equal variances not assumed			-.701	7.997	.503

### Appendix IV: Return on Equity – Independent T-Test

Period		N	Mean	Std. Deviation	Std. Error Mean
CFC Stanbic Bank Ltd	Pre-Merger	5	1.79000	.511615	.228801
	Post-Merger	5	1.44200	.471508	.210865
Co-operative Bank of Kenya	Pre-Merger	5	3.15200	2.976243	1.331016
	Post-Merger	5	13.08000	7.448960	3.331276
Paramount Universal Bank	Pre-Merger	5	.1100	.96912	.43341
	Post-Merger	5	1.5660	.52003	.23256
National Bank of Kenya ltd	Pre-Merger	5	-.4440	1.25017	.55909
	Post-Merger	5	1.3320	.61840	.27656
Southern Credit Bank Corp. Ltd	Pre-Merger	5	-.1480	.98314	.43967
	Post-Merger	5	1.9800	1.44465	.64607
Citibank NA	Pre-Merger	5	.9110	.27208	.12168
	Post-Merger	5	6.9000	2.41445	1.07977
I & M Bank Ltd.	Pre-Merger	4	.2800	.30210	.15105
	Post-Merger	5	.5300	.39294	.17573
Commercial Bank of Africa	Pre-Merger	5	1.8060	.21675	.09693
	Post-Merger	5	3.0580	.28960	.12951
EABS Bank ltd	Pre-Merger	5	.4280	.31284	.13991
	Post-Merger	5	.5680	.11798	.05276
Bank of Africa Kenya Ltd	Pre-Merger	5	1.3040	.43131	.19289
	Post-Merger	5	1.4900	.55403	.24777
Giro Commercial Bank Ltd	Pre-Merger	5	14.5120	3.15077	1.40907
	Post-Merger	5	11.4120	1.41574	.63314
Guardian Bank Ltd.	Pre-Merger	5	-.5940	7.55749	3.37981
	Post-Merger	5	6.6620	2.42992	1.08669
Kenya Commercial Bank	Pre-Merger	5	3.7260	.43067	.19260
	Post-Merger	5	1.5260	.75557	.33790

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2- tailed)
CFC Stanbic Bank Ltd	Equal variances assumed	.023	.884	1.118	8	.296
	Equal variances not assumed			1.118	7.947	.296
Co-operative Bank of Kenya Ltd	Equal variances assumed	5.916	.041	- 2.768	8	.024
	Equal variances not assumed			- 2.768	5.245	.037
Paramount Universal Bank	Equal variances assumed	1.903	.205	- 2.960	8	.018
	Equal variances not assumed			- 2.960	6.127	.025
National Bank of Kenya ltd	Equal variances assumed	4.445	.068	- 2.847	8	.022
	Equal variances not assumed			- 2.847	5.847	.030
Southern Credit Bank corp.Ltd	Equal variances assumed	1.146	.316	- 2.723	8	.026
	Equal variances not assumed			- 2.723	7.051	.029
Citibank NA	Equal variances assumed	3.878	.084	- 5.512	8	.001
	Equal variances not assumed			- 5.512	4.102	.005
I & M Bank Ltd.	Equal variances assumed	.209	.661	- 1.044	7	.331
	Equal variances not assumed			- 1.079	7.000	.316
Commercial Bank of Africa ltd	Equal variances assumed	.188	.676	- 7.739	8	.000
	Equal variances not assumed			- 7.739	7.411	.000
EABS Bank ltd	Equal variances assumed	14.863	.005	- -936	8	.377
	Equal variances not assumed			- -936	5.115	.391
Bank of Africa Kenya Ltd	Equal variances assumed	1.452	.263	- -.592	8	.570
	Equal variances not assumed			- -.592	7.546	.571
Giro Commercial Bank	Equal variances	.801	.397	2.007	8	.080

Ltd	assumed					
	Equal variances not assumed			2.007	5.552	.095
Guardian Bank Ltd.	Equal variances assumed	4.189	.075	- 2.044	8	.075
	Equal variances not assumed			- 2.044	4.818	.099
Kenya Commercial Bank Limited	Equal variances assumed	2.958	.124	5.656	8	.000
	Equal variances not assumed			5.656	6.351	.001

## Appendix V: Cost to Income Ratio – Independent T-Test

Period		N	Mean	Std. Deviation	Std. Error Mean
CFC Stanbic Bank Ltd	Pre-Merger	5	61.81200	13.606409	6.084971
	Post-Merger	5	66.65200	12.375077	5.534302
Co-operative Bank of Kenya Ltd	Pre-Merger	4	48.30000	49.427186	24.713593
	Post-Merger	5	85.22000	8.733098	3.905560
Paramount Universal Bank	Pre-Merger	5	73.3640	7.72136	3.45310
	Post-Merger	5	78.9500	1.70770	.76371
National Bank of Kenya ltd	Pre-Merger	5	71.6360	3.81218	1.70486
	Post-Merger	5	78.8900	4.24813	1.89982
Southern Credit Bank Corp. Ltd	Pre-Merger	5	75.0280	3.39554	1.51853
	Post-Merger	5	66.7600	7.15357	3.19917
Citibank NA	Pre-Merger	5	76.8420	8.37176	3.74397
	Post-Merger	5	83.1280	2.38996	1.06882
I & M Bank Ltd.	Pre-Merger	5	63.9520	5.67714	2.53890
	Post-Merger	4	47.3825	7.38994	3.69497
Commercial Bank of Africa ltd	Pre-Merger	5	67.1640	8.94650	4.00100
	Post-Merger	5	69.0100	5.39059	2.41074
EABS Bank ltd	Pre-Merger	5	39.9440	8.12025	3.63149
	Post-Merger	5	42.7560	4.01739	1.79663
Bank of Africa Kenya Ltd	Pre-Merger	5	66.1380	4.96478	2.22032
	Post-Merger	5	79.6440	3.87487	1.73290
Giro Commercial Bank Ltd	Pre-Merger	5	22.0280	11.27548	5.04255
	Post-Merger	5	36.8100	6.37939	2.85295
Guardian Bank Ltd.	Pre-Merger	5	12.1400	11.04673	4.94025
	Post-Merger	5	34.0200	5.60000	2.50440
Kenya Commercial Bank Limited	Pre-Merger	5	45.6480	6.31469	2.82402
	Post-Merger	5	62.8520	6.62367	2.96219

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
CFC Stanbic Bank Ltd	Equal variances assumed	.060	.813	-.588	8	.572
	Equal variances not assumed			-.588	7.929	.573
Co-operative Bank of Kenya Ltd	Equal variances assumed	12.824	.009	-	7	.140
	Equal variances not assumed			-	3.150	.232
Paramount Universal Bank	Equal variances assumed	5.658	.045	-	8	.153
	Equal variances not assumed			-	4.390	.183
National Bank of Kenya ltd	Equal variances assumed	.042	.842	-	8	.022
	Equal variances not assumed			-	7.908	.022
Southern Credit Bank corp.Ltd	Equal variances assumed	.874	.377	2.335	8	.048
	Equal variances not assumed			2.335	5.715	.060
Citibank NA	Equal variances assumed	13.855	.006	-	8	.145
	Equal variances not assumed			-	4.648	.172
I & M Bank Ltd.	Equal variances assumed	.343	.577	3.819	7	.007
	Equal variances not assumed			3.696	5.570	.012
Commercial Bank of Africa ltd	Equal variances assumed	4.055	.079	-.395	8	.703
	Equal variances not assumed			-.395	6.566	.705
EABS Bank ltd	Equal variances assumed	1.852	.211	-.694	8	.507
	Equal variances not assumed			-.694	5.847	.514
Bank of Africa Kenya Ltd	Equal variances assumed	1.503	.255	-	8	.001
	Equal variances not			-	7.554	.002

	assumed			4.795		
Giro Commercial Bank Ltd	Equal variances assumed	2.754	.136	- 2.551	8	.034
	Equal variances not assumed			- 2.551	6.323	.041
Guardian Bank Ltd.	Equal variances assumed	3.073	.118	- 3.950	8	.004
	Equal variances not assumed			- 3.950	5.929	.008
Kenya Commercial Bank Limited	Equal variances assumed	.029	.869	- 4.204	8	.003
	Equal variances not assumed			- 4.204	7.982	.003