# The Effect of Bank Restructuring on Financial Performance Controlled by Customer Deposits: An Empirical Investigation of Commercial Banks in Kenya

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***Abstract:*** *The ability of commercial banks to provide market knowledge, transaction efficiency and contrc enforcement create demand for its services in the financial markets. Commercial banks operating in Kenya ha undertaken restructuring so as to be more competitive, to restore bank solvency, to increase the banking sect capacity for financial intermediation and to improve financial performance. Previous researches done on the aspec of bank restructuring and financial performance found conflicting results and some of them did not include t intervening effect of deposits on this relationship. The study is informed by the theory of financial intermediatic agency theory, and the institutional theory. This study sought to investigate the relationship between ba restructuring, deposits and financial performance of commercial banks in Kenya. The population of the study w the 44 commercial banks licensed and registered under the banking act to do business in Kenya but data avail from financial statements of 39 commercial banks which were in operation for the period 2002 to 2014. Descripti and inferential data analysis methods were used to analyze the secondary data collected. The empirical findin conclude that commercial banks use all the four types of bank restructuring which were financial, capital, operatior and asset restructuring. The findings of the first model revealed that capital restructuring, and asset restructuri were the only variables found to have significant positive and negative influence respectively on the performance commercial banks in Kenya. In testing the second hypothesis, deposit were used as an intervening variable on t relationship between bank restructuring and financial performance, where financial restructuring and capi restructuring was found to significantly cause an increase in the profit margin of commercial banks while operatior restructuring and deposits were found to have a significant negative effect on bank profits. The composite variat of financial services was not found to have a significant effect. Therefore, the research disclosed that operatior restructuring, and deposits did not influence banks profitability. The research concludes that the performance of mc commercial banks in Kenya is determined through restructuring banks' financial and capital ratios The stu recommends that there is need to institute policy reforms geared towards viable restructuring and depo mobilization and that to continuously improve bank performance banks should encourage more borrowing and fun from shareholders and banks need to continuously focus on restructuring rather than ownership.*

***Key Words:*** *Bank Restructuring, Capital, Financial, Asset, Operational, Deposits.*

## 1. INTRODUCTION:

Bank restructuring is usually undertaken to address the problems in individual banks experiencing banking crisis or to solve the problems affecting the entire banking system (Barako, Ross & Brown, 2013). Commercial banks in an economy play the role of mobilizing resources from savers and transferring funds to borrowers so as to improve efficiency of the financial markets. They also serve as a point of convergence between those with surplus funds and those in need of funds (Chang, Ciana & Hsiao, 2014). In economies where commercial banks exist there is reduction of moral hazard, information asymmetry, adverse selection and transaction costs while financial market participants are able to monitor financial market activities (Berger & Humprey, 1997). The ability of commercial banks to provide market knowledge, transaction efficiency and contract enforcement create demand for their services by market participants (Williams & Nguyen, 2005).

Commercial banks offer various services to borrowers, savers and other financial market participants including; extending loans, accepting deposits, having in place Automated Teller Machine (ATM) services, agency banking, taking services to the people by opening branches close to their customers and suppliers and use of more relaxed modern banking halls (Dubel & Berlin, 2013). Hoening and Morris (2012) observe that broadening banking activities is as a result of complications in bank management, market regulation, and monitoring and risk management. Bank management is in-charge of managing risk and markets as well as monitoring and regulating banks making it necessary

to have in place bank restructuring (Berger et.al. 1995; Berger, 1998; Cole & Gunther, 1998). The existence of an appropriate legal and regulatory framework is important for successful bank restructuring (Kwaning, Churchill & Opuku, 2014; Chang *et. al.*, 2014).

Deposits are money placed into banking institutions for safekeeping. The main types of deposits of banks are; savings deposits, current account deposits, term deposits, call deposits, money market accounts and certificate of deposits (Nilesh, 2013). The account holder has the right to withdraw deposit funds, as set forth in the terms and conditions governing the account agreement. Banks tend to mobilize deposits so that they can use them as a basis for giving loans. Funds mobilized by way of deposits may not be sufficient as a basis for extending loans to customers, therefore banks have to sometimes borrow so that they can in addition be able to meet their overhead expenses (Greuning & Bratanovic, 2009).

The banking sector in Kenya has not been spared of banking crises including the 1982 to 1986 banking crisis and the 2007-2008 global financial crisis. In event of bank failure in Kenya, the Banking Act provides two options; either to appoint a statutory manager under section 34(2) with powers to safeguard the institutions' assets, evaluate its capital structure and management of the institution's assets and recommend to the Central Bank any restructuring or reorganization necessary for revival of the institution or appoint a liquidator under section 35(1) in the event the institution becomes insolvent. In this regard, Euro Bank Ltd was placed under liquidation in 2003 after becoming insolvent following substantial losses emanating from huge non-performing loans and Daima Bank Ltd was placed under statutory management by the Central Bank after a prolonged loss-making period that led to gross undercapitalization. Prudential Building Society was placed under statutory management in the same year due to its insolvency which eroded its capital base. From the reviewed literature, there is absence of studies incorporating the intervening effect warranting the need for this study.

## 2. CONCEPTUAL FRAMEWORK:

The knowledge gap highlighted lead to the development of the conceptual framework as indicated in Figure 1. This was guided by the empirical research in filling the gaps identified from the review of empirical literature. From the model, bank restructuring is the independent variable, which will be measured using financial, capital, operational and asset restructuring; while financial performance is the dependent variable. Bank restructuring is expected to lead to an increase in financial performance ($H_1$).

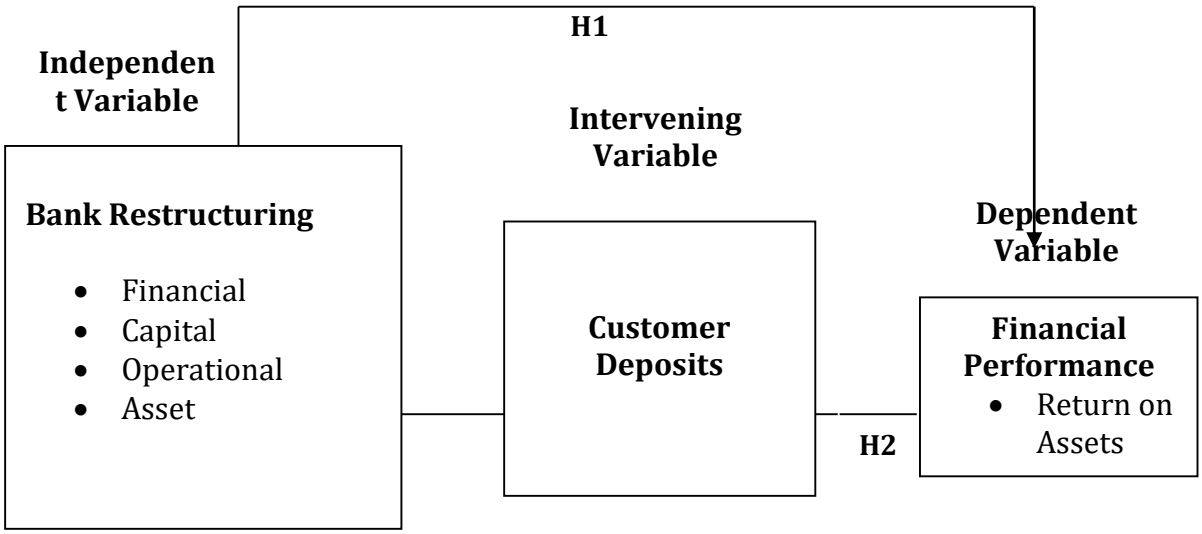


**Figure 1: Conceptual Model**

Financial performance was measured using return on assets. Financial services which in this study are an intervening variable of the relationship between bank restructuring and financial performance, was measured using deposits. The more the deposits, the higher the volume of mobile transactions, the bigger the branch network, the more the ATMs, the more the bank agents and the better the technology, the easier it is to undertake the restructuring process and the more profitable the commercial banks are expected to be. Bank restructuring increases the scope of financial services extended by banks and is expected to increase financial performance of banks ($H_2$).

## 3. MATERIALS AND METHODS:

The study employed descriptive research design on a census of all the 44 banking entities registered under the banking act which were carrying out banking business in Kenya. This study used secondary data for the period 2002 to 2014. This period was selected because this is the period when the Kenyan economy implemented the multiparty system

of Government. There was banking crisis due to economic decline that occurred from 1998 to 2001 inclusive. Descriptive statistics that were estimated in this study were: means, standard deviations, skewness and kurtosis.

The following empirical models state the relationships discussed in the conceptual model that were subjected to statistical significance tests. Bank restructuring was disaggregated into financial, capital, operational and asset restructuring and fitted into the regression model of the form;

$$ROA_{it} = \acute{\alpha}_{r11} + \beta_{rf1} FR_{rit} + \beta_{rc1} CR_{rit} + \beta_{ro1} OR_{rit} + \beta_{ra1} AR_{rit} + \varepsilon_{r11} \ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where: ROA is return on assets, FR is financial restructuring, CR is capital restructuring, OR is operational restructuring, AR is asset restructuring, $\alpha_{r11,}$ is the constant term, $\beta_{rf1,}$ $\beta_{rc1,}$ $\beta_{ro1,}$ and $\beta_{ra1}$ are the regression coefficients, *i* is income for bank i and *t* is the year when the bank earns the income while $\varepsilon_{r11}$ is the error term.

The effect of bank restructuring on financial performance controlled by customer deposits was estimated by the following model:

$$ROA_{it} = \alpha_{r33} + \beta_{rf3} FR_{rit} + \beta_{rc3} CR_{rit} + \beta_{ro3} OR_{rit} + \beta_{ra3} AR_{rit} + \beta_{rd3} DP_{rit} + \varepsilon_{r33} \ldots\ldots\ldots\ldots\ldots 2$$

Where FR, CR, OR, AR are as indicated in equation 1. DP is deposits, $\beta_{rf3}$, $\beta_{rc3}$ , $\beta_{ro3}$ $\beta_{ra3}$ , $\beta_{rd3}$ and $\beta_{rl3}$ are the regression coefficients while $\varepsilon_{fs}$ is the error terms.

## 4. RESEARCH FINDINGS :

### 4.1 Descriptive Statistics

Table 1 shows that the mean values for financial performance was 2.75% of the value of total assets with a variation of 2.396%. The data observations of financial performance had positive skewness as well as positive kurtosis. Financial restructuring had a value of 6.22% as a proportion of total assets with a variation of 15.726%. Capital restructuring had a mean value of 13.93% as a proportion of total assets with a variation of 7.365%. Operational restructuring had a mean of less than one branch and a standard deviation of less than one branch, an indication that banks take some significant amount of time before they increase or decrease or increase or reduce the number of branches and ATMs. Asset restructuring had a mean value of 8.45% to total loans with a variation of 11.09%.

The results show that financial restructuring, capital restructuring, operational restructuring and asset restructuring had positive skewness meaning that the data observations are skewed to the right. The positive kurtosis z-value shows that the data observations are normally distributed. The minimum values for the four bank restructuring variables was 0.00 while the maximum values were 0.94, 0.46, 0.40 and 0.84 for financial restructuring, capital restructuring, operational restructuring and asset restructuring respectively. The financial restructuring maximum level of 94% of total assets reveals that there are banks in Kenya that have significant levels of debt. The 46% level of capital as a proportion of total assets reveals that some banks have significant capital levels. Operational restructuring maximum value of 0.40 shows that a combination of branches and ATMs are generally less than one. The 84% maximum value of asset restructuring means that nonperforming loans to total loans is significant for some banks.

**Table 1: Summary Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | | | Kurtosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Z - Value | Statistic | Std. Error | Z - Value |
| Financial Performance | 507 | 0.00 | 0.37 | 0.0275 | 0.02396 | 5.832 | 0.108 | 0.019 | 76.931 | 0.217 | 0.003 |
| Financial restructuring | 507 | 0.00 | 0.94 | 0.0622 | 0.15726 | 3.855 | 0.108 | 0.028 | 14.929 | 0.217 | 0.015 |
| Capital restructuring | 507 | 0.00 | 0.46 | 0.1393 | 0.07365 | 0.787 | 0.108 | 0.137 | 1.794 | 0.217 | 0.121 |
| Operational restructuring | 507 | 0.00 | 0.40 | 0.0510 | 0.04151 | 3.567 | 0.108 | 0.030 | 19.884 | 0.217 | 0.011 |
| Asset restructuring | 507 | 0.00 | 0.84 | 0.0845 | 0.11099 | 3.181 | 0.108 | 0.034 | 13.020 | 0.217 | 0.017 |
| Deposits | 507 | 0.00 | 0.98 | 0.6756 | 0.16964 | -1.963 | 0.108 | -0.055 | 4.722 | 0.217 | 0.046 |

Source: Research Findings

### 4.2 Inferential Analysis

The first model of this study was to estimate the relationship between bank restructuring and financial performance of commercial banks in Kenya. Table 2 illustrates the regression results of these construct variables and the dependent variable which is the financial performance. The model summary of a linear relationship between financial performance and bank restructuring variables provided an estimated $R^2$ value of 0.107. This means that a combination of financial restructuring, capital restructuring, operational restructuring and asset restructuring can account for 10.7% of the variations in financial performance of commercial banks in Kenya. This could indicate that there exist other factors not included in the study which explains the remaining 89.3% of variation in the financial performance. Therefore, this could imply that the presence of the other factors would improve the predictive model of bank restructuring on financial performance. Osoro (2014) also found that there exists an insignificant positive effect of financial restructuring on financial performance of commercial banks quoted in Kenya as the estimated coefficient of determination was 26.7% which is higher than the one estimated by this study. The ANOVA of regression model provided the regression sum square of 0.031 and a model residual's of 0.260 with a mean square of 0.008 for the regression and 0.001 for the residuals. The Analysis of Variance (ANOVA) results produced an *F*-significance value 15.020 and a $p < 0.000$. This is an indication that the probability of this model giving false prediction is 0.0%. Therefore, this study's hypothesis that there is no significant relationship between bank restructuring and financial performance of commercial banks in Kenya is rejected.

The regression model further gave the results of coefficients of independent variables used in the model which indicate that these variables have variance relationship to the dependent variable. The model provided a constant value of 0.016 (*t* – value = 7.010) with a *p* – value of 0.000. Capital restructuring was found to be a major determinant of financial performance as it had a significant positive coefficient of 0.106 with a *t* – value of 7.223 and a *p* – value of 0.000.

Additionally, financial restructuring did not have a significant influence on financial performance of commercial banks. An increase in financial restructuring causes an increment in financial performance by 1.2%, (*t* – value = *1.828*) and *p* – value of 0.068. Capital restructuring increases financial performance by 10.6%, (t – value = 7 .223) and p – value of 0.000. The effect of capital restructuring on financial performance is significant. On the other hand, operational restructuring did not have significant influence on the financial performance of commercial banks in Kenya since they had coefficient values of -3.7% (*t* – value = -1.493) and *p* – value of 0.136. Therefore restructuring operations of commercial banks reduces profits by 3.7%. Asset restructuring however has a significant negative effect on the financial performance of banks as denoted by the coefficient of -3.1% (*t* – value = - 3.224) and *p* – value of 0.001 respectively. The findings on asset restructuring concur with that of Kwaning (2014) that restructuring assets reduces profitability of commercial banks according to this study. Operational restructuring and financial restructuring in the estimation have an insignificant relationship between bank restructuring and financial performance of commercial banks operating in Kenya. The revelation conflicts with that by Nor et. al. (2008) who found that bank restructuring was not found to be justifiable because restructured banks ended up being less focused, had weak corporate governance, reported poor management debt ratios and poor profitability.

**Table 2: The Effects of Bank Restructuring on Financial Performance**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.327[a] | 0.107 | 0.100 | 0.02274 |

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.031 | 4 | 0.008 | 15.020 | 0.000[b] |
| | Residual | 0.260 | 502 | 0.001 | | |
| | Total | 0.291 | 506 | | | |

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 0.016 | 0.002 | | 7.010 | 0.000 | 0.012 | 0.021 |
| | Financial restructuring | 0.012 | 0.006 | 0.078 | 1.828 | 0.068 | -0.001 | 0.025 |
| | Capital restructuring | 0.106 | 0.015 | 0.326 | 7.223 | 0.000 | 0.077 | 0.135 |
| | Operational restructuring | -0.037 | 0.025 | -0.065 | -1.493 | 0.136 | -0.087 | 0.012 |
| | Asset restructuring | -0.031 | 0.010 | -0.144 | -3.224 | 0.001 | -0.050 | -0.012 |

a. Dependent Variable: Financial Performance

Source: Research Findings

The second model in Table 3 shows that when deposit is included as an intervening variable on the relationship between bank restructuring and profitability, it enhances the significance of the predictor variables. Thus increases the explanatory power of the predictor variables from 10.7% to 14.2%. The results reveal that the variables that capital restructuring and customer deposits are significant with a coefficient of 11.0% (t = 7.644) p = 0.000 and the coefficient of 2.8% (t = 4.549) and a p = 0.000 respectively. The revelation is that capital restructuring increases bank profitability by 11.0%. This means that capital injection in banks can be used to boost profit margins of commercial banks.

**Table 3: The Effects of Bank Deposits and Bank Restructuring on Financial Performance**

| Model Summary | | | | |
|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 1 | 0.377[a] | 0.142 | 0.134 | 0.02230 |

| ANOVA[a] | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 0.041 | 5 | 0.008 | 16.627 | 0.000[b] |
| | Residual | 0.249 | 501 | 0.000 | | |
| | Total | 0.291 | 506 | | | |

| Coefficients[a] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** | **95.0% Confidence Interval for B** | |
| | | **B** | **Std. Error** | **Beta** | | | **Lower Bound** | **Upper Bound** |
| 1 | (Constant) | -0.003 | 0.005 | | -0.651 | 0.515 | -0.013 | 0.006 |
| | Financial restructuring | 0.013 | 0.006 | 0.086 | 2.064 | 0.040 | 0.001 | 0.026 |
| | Capital restructuring | 0.110 | 0.014 | 0.339 | 7.644 | 0.000 | 0.082 | 0.139 |
| | Operational restructuring | -0.054 | 0.025 | -0.094 | -2.188 | 0.029 | -0.103 | -0.006 |
| | Asset restructuring | -0.019 | 0.010 | -0.090 | -1.979 | 0.048 | -0.039 | 0.000 |
| | Deposits | 0.028 | 0.006 | 0.198 | 4.549 | 0.000 | 0.016 | 0.040 |

a. Dependent Variable: Financial Performance
Source: Research Findings

Therefore deposits have a positive mediating effect on the relationship between bank restructuring and financial performance. This can be justified by the presence of positive coefficient of 0.028 with a *t* = value of 4.549 and *p* – value of 0.000. On the contrary, despite being mediated by deposits, asset restructuring seem to have significant negative influence on banks' profitability. Without the intervening effect of deposits only capital restructuring and asset restructuring were found to be significant. The results of this study conflicts with those by Suehiro (2002) who states that restructuring nonperforming loans which is the measure of asset quality increases profitability of restructured banks.

## 5. CONCLUSIONS AND RECOMMENDATIONS:

The study concludes that bank restructuring affects financial performance of commercial banks in Kenya. The main aspects that have a significant effect on financial performance is capital restructuring asset restructuring. This means that injecting additional capital can increase bank profitability. However increasing the asset quality by restructuring bank assets reduces profits of banks significantly. If the objective is to increase profits banks might need to rely less on operational restructuring and financial restructuring. This is because operational restructuring tend to be accompanied by overhead costs such as those associated with increasing the branch networks, increasing the number of ATMs, incorporating agency banking, costs of entrenching internet banking, mobile banking, faceless banking, RTGS and other aspects of financial innovations encompassing, product, process and institutional innovations.

Asset restructuring on the other hand has the main intention of increasing the asset quality as measured using the nonperforming loan ratio. Reducing the nonperforming loans in the loan book tend to be associated with huge provisioning of non-performing loans which is an expense and therefore reduces bank profits significantly. This explains the negative effect of asset restructuring on profitability of commercial banks in Kenya. Incidentally, operational restructuring appears to have no significant effect on bank financial performance. This might be explained by the fact that restructuring bank operations usually has the effect of expanding the customer base and therefore increasing deposit levels which might not necessary be associated with profitability.

The intervening effect of deposits reveals that emphasizing on the importance of financial restructuring, capital restructuring and the intervening factor which is bank deposits. Operational restructuring is found to be important when deposits are used as an intervening variable because undertaking operational restructuring through branching, increasing the number of ATMs, introducing agency banking and other aspects of product, process and institutional innovations have cost implication which calls for prudent cost management associated with operational restructuring. Mediating the relationship between bank restructuring and financial performance of banks using deposits brings out the important factors that influence profitability as capital restructuring and asset restructuring.

There is need for the Central Bank of Kenya to recommend restructuring of banks either to improve financial performance or as a measure to salvage problem banks. The regulatory authority however should give the individual banks the leeway to identify the types of bank restructuring to use and many banks tend to focus more on capital injection as the main bank restructuring approach.

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