EFFECT OF CORPORATE GOVERNANCE ON TOTAL INCOME DUE TO NON-PERFORMING ASSET PORTFOLIOS IN THE BANKING SECTOR: A CASE OF COMMERCIAL BANKS IN KENYA

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Abstract

It' s argued that corporate governance can be linked to total income due to non performing asset portfolios (NPAs) in commercial banks in Kenya but this has not been determined empirically. Information is lacking on effect of corporate governance on total income due to NPAs among these banks. The study sought to establish effect of corporate governance on total income due to NPAs, among these banks. The study was guided by a Shareholder theory in which the independent variable is corporate governance and dependent variable is total income due to NPAs. Correlational survey design was employed in the study. The target population was 43 heads of credit of the banks operating in Kenya from 2005 to 2012. Simple random sampling technique was used to select a sample size of 24 heads of credit. Secondary data was collected through review of records of the banks, reports, journals and books. Primary data was obtained from respondents through a questionnaire and interview schedule. Instrument reliability stood at Cronbach's Alpha of 0.65. The objective was analyzed using regression analysis. Results for the objective showed a_1, a_2 *and* a_3 *as 0.102(p=0.639), 0.288(p=0.193) and 0.105(p=0.631) respectively. This means that a unit change in standard deviation in efficiency for example causes 0.105 standard deviations in total income, insignificantly. R-Square results was 0.128 for total income model. This implies the model is stable and valid for prediction at 12.8%.*

1.0 INTRODUCTION

Corporate governance is a set of decisions and actions used to direct and control an organization. It consists of relationships between, and accountability of, the organization's stakeholders, as well as the laws, policies, procedures, practices, standards, and principles which may affect the organization's direction and control (Cadbury, 1992). Spectacular corporate failures, such as Enron, WorldCom, the Bank of Credit and Commerce International (BCCI), Polly Peck International, and Baring Bank, have made it a central issue, with various governments and regulatory authorities making efforts to install stringent governance regimes to ensure the smooth running of corporate organizations, and prevent such failures (Al-Baidhani, 2014). Understanding the corporate governance of banks is especially important because of the systemic risk that banking activity poses for the economy at large as evidenced by the U.S. savings and loan crisis in the 1980's, the Asian financial crisis in the 1990's and the more recent subprime mortgage crisis (Alexander 2006). Notwithstanding, the economic relevance of banks and of corporate governance within banks, corporate governance issues related to banks have been overlooked by prior research, which tends to focus on firms in the non-financial sector (Handley et al. 2001, Adams et al 2003). Studies, particularly focusing on Kenya, have not covered effect of asset quality, capital adequacy and efficiency on total income of commercial banks due to NPAs.

1.1 Problem Statement

In Kenya lack of stringent Corporate Governance mechanisms have led to banks collapsing, merging or going into receivership leading to loss of jobs as a result of low incomes by banks due to non-performing asset portfolios. Poor lending; mismanagement; customers unwillingness to repay etc. are perceived as the main factors contributing to the non-performing debt problem in Kenya leading to low incomes by banks and this is the ground for anchoring this study. The Kenyan banking sector was in the 1980's and 1990's saddled with a momentous low income due to non-performing loans portfolio which invariably led to the collapse of some banks. Where there is non-repayment of borrowed funds at widespread levels there will be a devastating effect on the bank and the entire economy as this will lead to erosion of the banks' total income. Therefore the

purpose of this research was to examine the effect of corporate governance on total incomes due to non-performing asset portfolios in the banking sector: A case of commercial banks in Kenya.

1.2 Objective of the study

Establish effect of corporate governance on total income due to non-performing asset portfolios among commercial banks in Kenya.

1.3 Conceptual Framework

The study was guided by Shareholders Value Theory whereby independent variable is corporate governance and dependent variable is total income due to non- performing asset portfolio. Intervening variables were internal and external factors. It is expected that corporate governance operationalized through asset quality, capital adequacy and efficiency(Friedman, 1970) have an effect on total income of banks due to NPAs. The relationship is not perfect. It is expected that a number of internal and external factors interfere with the relationship as illustrated in figure 1.1.

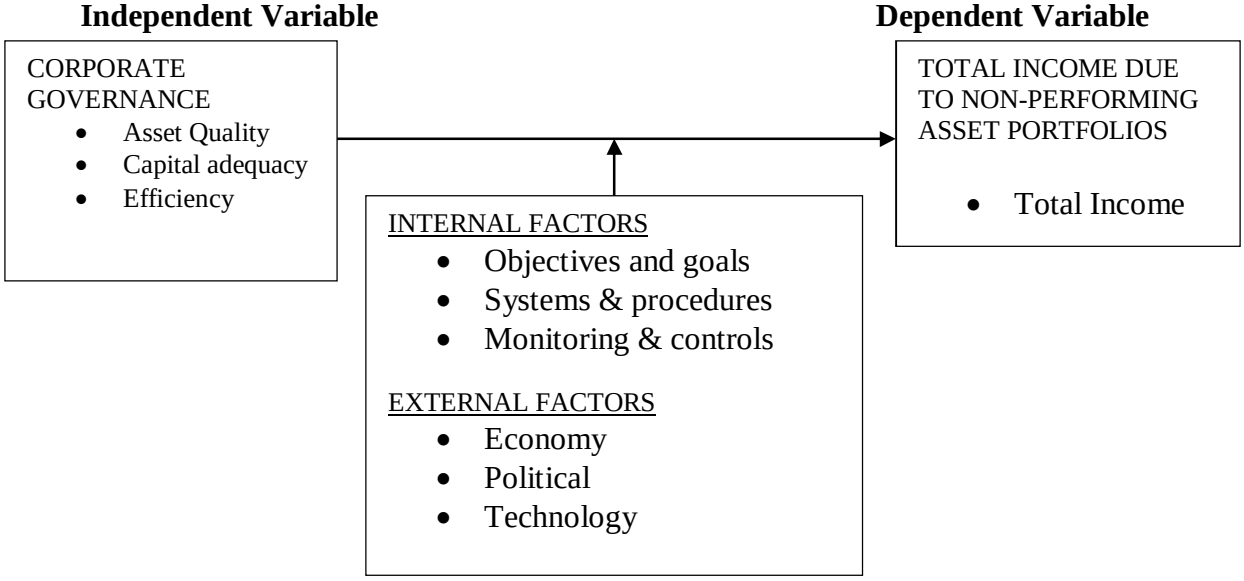

Figure 1.1: Relationship between corporate governance and Performance of Banks due to Non-performing Asset Portfolios**.**

Source: Adapted from Friedman (1970)

2.0 Literature Review

2.1 Theory of the Study

The shareholder theory (Friedman, 1970), states that the sole responsibility of business is to increase profits. It is based on the premise that management is hired as the agent of the shareholders to run the company for their benefit, and therefore they are legally and morally obligated to serve their interests. The only qualification on the rule to make as much money as possible is "conformity to the basic rules of the society, both those embodied in law and those embodied in ethical custom." For purposes of this study, the theory explains the interaction of stakeholders in governance of the banks resulting in different levels of total incomes due to NPAs subsequently affecting overall bank performance. Consequently, it explains the relationship that would exist between asset quality, capital adequacy and efficiency as elements of corporate governance with total income due to NPAs.

2.2 The Concept of Corporate Governance

Corporate governance is defined as "ways of bringing the interests of investors and managers into line and ensuring that firms are run for the benefit of investors (Mayer, 1997). Corporate governance is one of the reasons that is believed to have played a role in the global financial crisis of 2008, where many commercial banks and investment banks worldwide collapsed or were bailed out by governments (Kabigting *et al*., 2011). It has received wide attention in Kenya due to recognition that improved corporate governance will lead to improved productivity, efficiency and effectiveness. Asset quality as a concept of corporate governance is an evaluation of asset to measure the credit risk associated with it. Bank's asset comprises mainly of its loans and advances to customers and is related to the left-hand side of the bank balance sheet. Bank managers are concerned with the quality of their loans since that provides earnings for the bank. To assess asset quality, a ratio that is used is non performing loans (NPL) provision to operating income. This ratio measures to what extent the operating income is weighted down by the provisions set aside for NPL. A lower ratio is desirable. According to Muhammad *et al.* (2011) capital adequacy refers to bank's capital sufficiency in relation to its liabilities and it is measured using Core Capital to Total Deposits. The rule of the thumb is that bank's should progressively convert some of their earnings into capital to cover any liabilities that may occur in the future. For banks with limited earnings,

strategic decisions should be taken to ensure capital adequacy. Efficiency is the ratio of Operating expenses to Total Net Operating Income, also known as Cost Income Ratio. It is a measure of how efficiently the bank is utilizing its resources to generate income. A lower ratio is desirable.

2.3 The Concept of Total Income

Sethi et al (2007), in their findings in India explained thus, Banks cannot credit income to their profit and loss account to the debit of loan account unless recovery thereof takes place in a case of NPA account. Karunakar *et al.* (2008) writing a journal from India observed that, NPAs result in deleterious impact on the return on assets such that interest income of banks will fall and it is to be accounted only on receipt basis, banks profitability is affected adversely because of the provision of doubtful debts and consequent write off as bad debts, return on Investment (ROI) is reduced. This ratio therefore measures how far the provisions are covered by the bank's operating income. If the provisions suck up the entire operating income, then the bank is in trouble and is likely to be struggling for survival. The ratio of NPL provisions to operating income should be reviewed in relation to the bank's current and future earning positions.

2.4 Concept of Non-Performing Asset Portfolio

An asset becomes non-performing when it ceases to generate income for the bank. This occurs when the borrower fails to repay the interest and/or principal on agreed terms (Siraj *et al*., 2012). Accordingly, a non-performing asset (NPA) shall be a loan or an advance where; Interest and /or installment of principal remain overdue for a period of more than 90 days in respect of a term loan, an Overdraft (OD), or bills purchased and discounted. CBK requires commercial banks to maintain adequate provisions for bad and doubtful debts prior to declaring profits or dividends. Loans and advances are always classified as either, normal, watch, substandard, doubtful or loss based on their characteristics. All the facilities granted by a bank to a borrower will have to be treated as NPA and not the particular facility or part therefore which has become irregular (Reserve Bank of India master circular, 2001). The extent of non-performing assets of banks has assumed a formidable proportion during the last decade and beyond, eating into hard earned incomes of the banks. This figure averaged 38 percent between the years 1990 to the year 2000 according to the Kenya Institute of Bankers Issue no.2 (2000). Currently the situation is not any better.

3.0 Methodology

3.1 Research Design

This study was guided by quantitative paradigm, since it was based on testing of a theory, was composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory held true (Cresswell, 2003). This study adopted a correlational survey design. The design was expected to test the hypothesis and meet the objective of the study. According to Nachmias and Nachmias (2008), a survey design is most suitable in a research aimed at establishing a problem and determining its extent. The advantage of a survey design is emphasized in the growing tendency of ethnographers to complement their works with survey research. Correlational approach helped determine whether and to what degree a relationship exists between the quantifiable variables (Mugenda and Mugenda, 2003).

3.2 Study Area

The study area is Kenya. The study covers all the banks in Kenya. The banks have their headquarters and branches geographically spread all over Kenya. Kenya, is a country in East Africa lying in the latitudes and longitudes of 4°N and 4°S and 34° E and 42°E respectively.

3.3 Study Population

The target population comprised of heads of credit from 43 commercial banks operating in Kenya between 2005 to 2012.

3.4 Sampling Technique

Simple random sampling was used to select the banks for the study from the total number of banks. Simple random sampling technique was considered as suitable because it gives all the banks a chance to be selected for this study. A sample size of 24 heads of credit, representing 56% of the target population (Table 3.4.1) was used. The study considered senior managers of the selected banks totaling to 24 as the respondents. This sample size was determined using the formula as indicated below:

$$S = n/1 + (n/N)$$

Source: Chava *et al.,* 1996.

Where, N= Target population

S= Sample Size

$$n = Z * Z(P(1-P)/(D * D))$$

P= True proportion of factor in the population, or the expected frequency value

D= Maximum difference between the sample mean and the population mean, or expected frequency value minus (-) worst acceptable value

Z= Area under normal curve corresponding to the desired confidence level

Hence; Z= 95%/1.960, N=43, P= 4%, D= 5%

Calculation; n= 1.96 * 1.96(0.04(1-0.04)/(0.05*0.05))= 3.816(15.36) = 58.6

$$S = 58.6/1 + \left(58.6/43\right) = 58.6/2.4 = 24$$

The formula assumes a margin precision of 0.5 and a confidence of 95% (Chava *et al.,* 1996).

Table 3.4.1 Sample Distribution

	Total Population(N)	Sample(S)
Banks/Heads of Credit	43	24
Total	43	24

Source: Adapted from CBK (2014)

3.5 Data Collection

3.5.1 Data Type and Source

The study used both primary and secondary data. Primary data was collected from original sources which in this case were the heads of credit. Secondary data was obtained from text books, journals, periodicals, magazines, libraries, internet services, banks' financial statements.

3.5.2 Data Collection Instrument

The questionnaires are commonly used to obtain important information about the population. Each item in the questionnaire was developed to address specific objective (Mugenda, 1999). Interview method was also used. Personal or face to face and telephone interviews were conducted. An interview schedule of the banking institutions and the bank contact persons were prepared based on the objective of the research and were administered by the interviewer.

3.5.3 Reliability of Data Collection Instrument

Pretesting was conducted for reliability. Reliability refers to the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials. Reliability test was aimed at determining consistency and stability. Since there is little published guidance concerning how large a pilot study should be (Melody Herztog, 2008), pilot test was conducted on 10 heads of credit from the commercial banks. This group was not included in the main study. The responses for the pilot test are presented in table 3.5.3 below:

Table 3.5.3: Pilot test response Received from Target Respondents

Bank	Expected Number	Actual umber	Percentage
Bank 1	1	1	100%
Bank 2	1	1	100%
Bank 3	1	1	100%
Bank 4	1	1	100%
Bank 5	1	1	100%
Bank 6	1	1	100%
Bank 7	1	1	100%
Bank 8	1	1	100%
Bank 9	1	1	100%
Bank 10	1	1	100%
Total	10	10	100%

Source: Pilot Survey Data (2014)

The ideal was to test stability by administering the instrument to the pilot survey respondents twice. However it was difficult to do this when dealing with senior executives like in this study (Sekaran, 2000). Therefore to check the reliability of the instrument in this study, Cronbach's Alpha was used (Cronbach, 1951). According to suggestions by Hair et al (1998), the study found it acceptable a

reliability coefficient above 0.6. The instrument was found reliable at Cronbach's alpha of 0.65. Consequently the instrument was accepted as reliable.

3.5.4 Validity of Data Collection Instrument

Data collection instrument was exposed to subject and research experts who included the supervisors, to critique for clarity and ability to collect intended data.

3.6 Data Analysis and Presentation

Measures used were percentages, means and averages. Since the study was focusing on relationship between variables, bivariate analysis was done using Pearson correlation techniques (O'Connor, 2011) and regression analysis. The objective was analyzed using regression analysis. The results are presented in tables.

Regression Model Specification

$y = f($ Asset Quality, Capital Adequacy, Efficiency, $\varepsilon)$

$$y_1 = a_0 + a_1x_1 + a_2x_2 + a_3x_3 + \varepsilon_1 \text{.....} \textbf{1}$$

$$y_2 = a_0 + a_1x_1 + a_2x_2 + a_3x_3 + \varepsilon_2 \text{.....} \textbf{2}$$

$$y_3 = a_0 + a_1x_1 + a_2x_2 + a_3x_3 + \varepsilon_3 \text{.....} \textbf{3}$$

Where;

Asset Quality $= x_1$ **; Capital Adequacy** $= x_2$ **; Efficiency** $= x_3$ **; Total Income** $= y_2$ **;** $\varepsilon =$ **Error margin**

4.0 Results and Discussions

Effect of Corporate governance on total income due to non-performing asset portfolios in commercial banks in Kenya

4.1: Total income analysis:

Income from non-performing asset portfolios are not recognized on accrual basis and are booked as income only when it is actually received. The banks are not allowed to charge and take to income account interest on any non-performing asset portfolios. The interest is suspended. The quality of earnings is therefore very important criterion which determines the ability of a bank to earn consistently. It basically determines the profitability of the banks. It also explains the sustainability and growth in future earnings. This parameter has gained importance in the light of the argument that much of a bank's income is earned through activities such as investments, treasury operations, advisory services, exchange, commissions and fees, interest incomes, penalties and processing fees etc. The spread analysis, thus the difference between interest earnings and interest expended has received more attention in banking crises because it directly and easily develop link to change in interest rates. From the period 2005-2012 as shown in table 4.1 below, the bank which generated higher earnings after BBK was Stanchart at 8.514 billion, 9.519 billion, 11.121 billion, 11.745 billion, 14.330 billion, 15.679 billion, 18.206 billion and 26.446 billion respectively in the years. It also shows that BBK made more money than any other bank in Kenya from 2005-2008 at 15.185 billion; 16.615 billion; 21.113 billion and 27.438 billion respectively. It was overtaken by KCB from 2009-2012 when it posted 26.145 billion; 27.480 billion; 27.634 billion and 30.319 billion respectively while KCB posted 27.259 billion; 34.125 billion; 37.699 billion and 49.831 billion during the period. BBK was also overtaken by Equity bank when Equity posted 28.094 billion and 38.079 billion in 2011 and 2012 respectively.

Table 4.1: Total Net Operating Income

	2005	2006	2007	2008	2009	2010	2011	2012
KCB	9,973.00	12,861.00	15,742.00	24,913.00	27,259.00	34,125.00	37,699.00	49,831.00
Equity	1,885.00	3,498.00	6,317.00	13,968.00	17,281.00	24,212.00	28,094.00	38,079.00
Coop	6,797.00	7,996.00	9,051.00	11,379.00	14,005.00	18,303.00	22,556.00	30,866.00
BBK	15,185.00	16,615.00	21,113.00	27,438.00	26,145.00	27,480.00	27,634.00	30,319.00
Stanchart	8,514.00	9,519.00	11,121.00	11,745.00	14,330.00	15,679.00	18,206.00	26,446.00
Citibank	2,710.00	3,491.00	3,717.00	5,542.00	4,978.00	5,256.00	7,765.00	11,225.00
CBA	2,480.00	3,369.00	4,167.00	5,766.00	6,788.00	8,376.00	8,109.00	12,087.00
DTB	1,816.00	2,360.00	3,725.00	5,932.00	8,012.00	10,250.00	8,927.00	14,569.00
NBK	5,226.00	6,175.00	5,456.00	5,884.00	6,889.00	8,164.00	9,172.00	11,265.00
NIC	2,313.00	2,894.00	3,554.00	4,923.00	5,887.00	6,812.00	8,264.00	12,966.00
CFC Stanbic	1,507.00	2,408.00	3,170.00	6,677.00	8,751.00	10,520.00	13,246.00	19,076.00
I & M	1,923.00	2,589.00	3,414.00	4,417.00	5,359.00	7,019.00	9,139.00	13,115.00
Imperial	1,504.00	1,928.00	2,472.00	2,880.00	3,200.00	3,649.00	5,167.00	7,638.00
Chase	299.00	460.00	705.00	1,112.00	1,606.00	2,594.00	4,087.00	7,683.00
BOA	449.00	564.00	752.00	1,024.00	1,616.00	2,326.00	3,493.00	6,289.00
HFCK	1,199.00	1,206.00	1,158.00	1,533.00	2,031.00	2,730.00	3,753.00	5,349.00
BOB	852.00	1,163.00	1,494.00	2,004.00	2,384.00	3,706.00	4,094.00	6,220.00
DBK	274.00	352.00	488.00	644.00	767.00	956.00	1,151.00	1,537.00
Credit	303.00	288.00	344.00	356.00	433.00	596.00	645.00	968.00
Giro	516.00	590.00	665.00	718.00	862.00	1,094.00	1,335.00	1,822.00
Guardian	479.00	564.00	584.00	753.00	823.00	974.00	1,144.00	1,751.00
Middle East	426.00	375.00	372.00	362.00	331.00	560.00	530.00	739.00
Paramount	174.00	251.00	274.00	327.00	370.00	734.00	599.00	866.00
TNBK	325.00	384.00	450.00	552.00	564.00	736.00	1,007.00	1,400.00

Source: Banking Survey (East Africa) 2014

Table 4.1 above represents total net operating income for the period 2005 to 2012 for 24 out of 43 commercial banks operating in Kenya.

Total Income as a dependent variable entered against all the predictors: efficiency, capital adequacy and asset quality show a significant level of 0.422. The multiple correlation coefficients, R, is the correlation coefficient between the observed values of y and the predicted values of x. ANOVA F statistic of 0.98 is significant with a P-value>0.05. The model establishes a relationship between total income, efficiency, capital adequacy and asset quality.

Table 4.2 Level Prediction of the model of total income

Model Summary

R Square	Adjusted R Square	Std. Error of the Estimate
.128	-.003	7435.33046

a. Predictors: (Constant), Efficiency (x3), Capital Adequacy (x2), Asset Quality (x1)

Table 4.3 Analysis of Variance in the model of total income

ANOVA[a]

Df	Mean Square	F	Sig.
3	54178595.160	.980	.422[b]
20	55284139.113		
23			

Table 4.4 Effect of Asset Quality, Capital Adequacy and Efficiency on total income due to non-performing asset portfolios in the banking sector

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	14330.979	8144.932		1.759	.094	-2659.051	31321.009			
	Asset Quality (x1)	-28.491	59.790	-.102	-.477	.639	-153.211	96.229	-.172	-.106	-.099
	Capital Adequacy (x2)	-155.452	115.503	-.288	-1.346	.193	-396.387	85.484	-.322	-.288	-.281
	Efficiency (x3)	-70.464	144.246	-.105	-.488	.631	-371.357	230.429	-.170	-.109	-.102

a. Dependent Variable: Total Income (y2)

The Coefficients shows that the confidence level has not been met by asset quality, capital adequacy and efficiency. The relationship between total income and asset quality is not linear and the confidence level is -0.099 meaning most banks' incomes are eroded by provisions and interest suspense due to non-performing assets. The relationship between total income and capital adequacy is not linear and the confidence level is -0.281 meaning most banks lack the capacity to plough back their earnings to core capital. The relationship between total incomes and efficiency is also not linear and the confidence level is -0.102 meaning most of the banks are not efficient in terms of corporate governance. The coefficients show 95% confidence interval for Beta such that:

$$y_2 = 14330.979 + 0.102x_1 + 0.2882x_2 + 0.105x_3 + \varepsilon$$

Results for this objective showed a_1, a_2 and a_3 for Y_2 as 0.102(p=0.639), 0.288(p=0.193) and 0.105(p=0.631). This means that a unit change in standard deviation in efficiency for example causes 0.105 standard deviations in total income of the banks due to non performing asset portfolios, insignificantly. R square result was 0.128 implying that the model is stable and valid for prediction of total income of the banks due to NPAs at 12.8%. The findings agree that the failure of corporate governance in banks may therefore pose serious consequences for the banking sector and the economy as a whole (Caleb 2011). These results also agree with results by Onuko, Muganda and Osiega (2015).

5.1 Summary of Findings

The results show that capital adequacy, efficiency and asset quality contribute to total income of these banks due to NPAs. Asset quality, capital adequacy and efficiency all have negative effect on total income albeit insignificantly. The model for total income is stable.

5.2 Conclusions of the study

The results of the study show that corporate governance has effect on total income of banks due to NPAs. Specifically, the study concludes that a number of internal factors including poor lending, customers unwillingness to repay and mismanagement contribute to low incomes due to NPAs among commercial banks in Kenya. Asset quality, Capital Adequacy and Efficiency have joint effect on total income.

5.3 Recommendations of the study

Based on the findings and conclusions the study recommends that , the rules and procedures of banks should be enhanced to improve bank performance hence increasing banks' incomes and eliminating NPAs. This will go along way in addressing mismanagement of the banks. On poor lending, it is also recommended that credit officers, supervisors and management undergo rigorous training on regular basis. Customers should be thoroughly vetted and appraised on the basis of character to address the issue of unwillingness to repay in future. The history of customers should be variously verified. The customers should also be offered advisory services and products' training. Hence these will reduce NPAs and increase banks' total income.

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