EFFECT OF FINANCIAL FRAUD ON THE PERFORMANCE OF COMMERCIAL BANKS: A CASE STUDY OF TIER 1 BANKS IN NAKURU TOWN, KENYA

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Abstract
Fraud is like a contagious disease that not only cripples the banking sector but its effects are felt throughout the economy. This has caused the liquidity of banks to decrease and their performance to deteriorate. This study therefore, sought to assess the effect of financial fraud on the financial performance of Commercial Banks in Kenya, a case of Nakuru Town. The objectives of this study were to carry out an assessment of the effects of frauds on Commercial Banks Performance. Specifically the study identified the effect of cheque fraud, the effect of fraudulent invoice and payments, examined the extent of money laundering and to identify the effect of fraudulent loans on the financial performance of Commercial Banks in Nakuru town. The study was grounded on Cressey’s Fraud Triangle Theory, Wolfe & Hermanson’s Fraud Diamond Theory, and Hollinger Clerk Study. This study adopted a descriptive research design. The population of interest in this study is Tier I banks in Nakuru County. A survey of 11, Tier 1 Banks was sufficient, and specifically targeted; management, tellers, Loans department, and Accounts opening section. Primary data for the study was collected using self-administered questionnaires, while secondary data was collected from annual reports at Central Bank of Kenya, Bank fraud investigation unit and audited financial reports of the banks. The data was analyzed using SPSS for correlation analysis and regression analysis and was presented using figures and tables for ease of interpretation and elaboration.

Keywords: Commercial Bank, Frauds, Fraudulent loans, Laundering, Performance
INTRODUCTION

Banks have always been viewed as a profitable venture by many investors as they have a wide customer base, high profitability margins and customer retention. However, just like any business they are faced with a lot of challenges that always seem to slow them down e.g. competition, market forces of demand and supply, political stability, fraud and poor management of the banks. In recent findings by CBK, fraud has been the major cause of banks to collapse e.g Dubai Bank and others to go under receivership like Imperial Bank and Chase Bank. Only until recently that the Central Bank CEO gave guidelines and measure to prevent money laundering by ensuring that all deposits and withdrawals made into the bank exceeding Kshs. 1 Million must be explained. Initially one could transact millions of shillings before questions are raised.

According to Oseni (2006) the incessant frauds in the banking industry are getting to a level at which many stakeholders in the industry are losing their trust and confidence in the industry. It is asserted by Adeyemo (2012) that fraud in the bank is possible with corroboration of an insider. The banks are expected to ensure that they carry out their responsibilities with sincerity of purpose which is devoid of fraudulent practices. This is relevant if the banking sector is to gain public trust and goodwill. Fraud in its effect reduces organizational assets and increases its liabilities. With regards to banking industry, it may engender crises of confidence among the banking public, impede the going concern status of the bank and ultimately lead to bank failure.

Fraud in bank shakes the foundation and credibility of most banks in Kenya causing some of the banks to be distressed. The study is faced with challenges to uncover the problem of how fraud affect the performance of Kenya banking industry and economy in general considering the positive or negative effect based on the present nature of Kenyan Banking Industry. Hence, it is against this background that this study meant to investigate the implication of financial fraud on commercial bank performance in Kenya.

Bank’s Performance

This is the profitability of the bank as a result of a firm’s policies and operations in monetary terms. These results are reflected in the firm’s return on investment, return on assets, value added, capital base, employee’s performance and customer loyalty. It’s the state or condition of yielding financial profit or gain (Kweyun, 2009). The high occurrence of fraud within the banking industry has become a problem to which solution must be provided in view of the large sums of money involved and its adverse implications on the economy (Fadipe-Joseph and Titiloye,
2012). In our research we will be measuring performance in terms of profitability and return on investments.

Statement of the Problem
In the recent times the banking industry in Kenya has been on the spotlight for alleged malpractices and fraud. This has not only seen some banks going into receivership, but also face a threat of closure, with the management of these banks featuring as the poorest and their internal controls too weak to detect and prevent frauds. It is asserted by Adeyemo (2012) that fraud in the bank is possible with corroboration of an insider. The banks are expected to ensure that they carry out their responsibilities with sincerity of purpose which is devoid of fraudulent practices. This is relevant if the banking sector is to public trust and goodwill. The government and its agencies on the other hand, has not put enough effort in fighting preventing and controlling fraud. This inaction has increased the level of fraud and fraudsters have improved their ways of perpetrating frauds. However, agencies like money laundering Act which helps to place surveillance on any account through which such excess cash deposits or withdrawals are made, has recently put guidelines for bank transactions exceeding Kshs. 1 Million. The Banking Fraud Investigation Department has failed the public and banks by not being proactive in their fight against fraud. This has caused banks to incur huge losses lowering their profitability and performance. It is against this backdrop that the researcher intends to question how financial frauds committed have affected the bank performance which my study seeks to answer.

Objectives of the study
The main objective of this study was to identify the effect of financial frauds on Performance of Commercial Banks. The specific objectives of this study were:

1. To identify the effect of cheque fraud on the performance of Commercial Banks.
2. To determine the effect of fraudulent invoices and payments on the performance of Commercial Banks.
3. To identify the effect of fraudulent loans on performance of Commercial Banks.
4. To assess the extent of money laundering on the performance of Commercial Banks.

Research Questions
1. How does Cheque fraud affect financial performance of Commercial Banks?
2. What is the effect of fraudulent invoices and payments affect financial performance of Commercial Banks?
3. What is the effect of fraudulent loans on the financial performance of Commercial Banks?
4. To what extent does money laundering affect the financial performance of Commercial Banks?

LITERATURE REVIEW

Theoretical Framework

The Fraud Triangle Theory

Originally developed by in 1973 by Donald Cressey, a criminologist, he established that for fraud to occur there must be a reason. He related to three factors (pressure, opportunity, and rationalization) that must be present for an offense to take place. He ascertained that the perpetrator must formulate some morally acceptable idea to them before engaging in unethical behavior and if fraud perpetrators are given the opportunity they are most likely to commit fraud. Lister (2007) in furtherance of this study stated that pressure is a significant factor to commit fraud. He determined three types of pressure which are personal, employment stress, and external pressure. He defined the pressure to commit fraud as “the source of heat for the fire.” But having this pressure does not become a reason for someone to commit fraud.

The Fraud Diamond Theory

The FDT was first presented by Wolfe and Hermanson in the CPA Journal in December 2004. In this theory, an element named capability has been added to the three initial fraud components of the FTT. Wolfe and Hermanson (2004) argued that although perceived pressure might coexist with an opportunity and a rationalization, it is unlikely for fraud to take place unless the fourth element (i.e., capability) is also present. Mackevicius and Giriunas (2013), not every person who possessed motivation, opportunities, and realization may commit fraud due to the lack of the capability to carry it out or to conceal it. Albrecht, Williams, and Wernz (1995) opine that this element is of particular importance when it concerns a large-scale or long-term fraud. Furthermore, Albrecht et al. (1995) believe that only the person who has an extremely high capacity will be able to understand the existing internal control, to identify its weaknesses and to use them in planning the implementation of fraud.

Hollinger – Clerk Study

In 1983, after Hollinger and John P. Clerk surveyed 10,000 workers they found out that employees steal primarily as a result of work place conditions. They concluded that the true costs of employee theft are vastly understated. They identified two categories of employee
defiance: Acts of employees against property (misuse and theft of company property and Acts of employees that affect productivity). They believed that employees financial situation, age, position at work, satisfaction of employees and weak organizational controls greatly affect the nature of employees to steal and commit fraud.

**Conceptual framework**

The conceptual framework outlines the dependent, independent and any moderating variable which will help us to understand the relationship between the variables of the study? It gives a summary of the independent factors with measurable indicators that can be undertaken in the field during research. This is shown in the figure below:

**Independent variables**

The types of fraud committed include; Forgery especially of cheques through alteration causes theft of funds thus lowering profitability and ROI of the bank. Cheque fraud occurs through stolen cheques deposited into fictitious account, this reduces the profitability of the bank as customers affected may flee the bank thus causing reduction in deposits. Impersonation through...
payments to fake persons or Financial Institutions causes theft of funds and assets which reduces the profitability, and ROI of the bank.

The causes of frauds like weak internal control systems can enable theft of assets which will negatively reduce the banks ROI and will also reduce the bank’s capital base. Poor management practices leads to poor supervision of employees, thereby resulting to laxity and low accountability enabling them to commit frauds undetected. Employee collusion with customers like overvaluing securities given as guarantee for loans and clearing of fraudulent cheques, which increases fraudulent loans being given to customers and increases cheque fraud, thereby reducing; the ROI and general profitability of the bank, and increase bad debts.

Some of the mitigation measures identified include; strengthening the ICS, through adherence to ISO Procedures, reduces theft of assets, laxity in the performance, supervision of employees, and proper customer care. This will in turn translate to better performance of employees, an increase in customers and in the long run increase in profitability of the bank. Hiring competent personnel to manage the affairs of the bank, this reduces chances of fraud caused by poor management practices.

Dependent Variables
According to the CPA, revision Kit, Strathmore University (2009), bank performance is measured through various means as follows:
Profitability which is usually the difference between the income for the period and the expenditure incurred.

\[
\text{Profit} = \text{Revenue} - \text{Expenditure}
\]

ROI, measures a banks’ ability to control production, operating and financing decisions. It is calculated as:

\[
\text{ROI} = \frac{\text{Net profit after taxes}}{\text{Total assets}}
\]

RESEARCH METHODOLOGY
Research Design
The research employed descriptive research design. Descriptive research method helps in gathering information about existing status of the phenomena in order to describe what exists in respect to variables. This method is used because it addresses the objective of the study in investigating the relationship between variables of the study (Kothari, 2004). The design takes
into consideration aspects like the sample size in relation to the target population, the variables under the study, the approaches to the research, and the methods employed in data collection.

Target Population of the Study
A population is defined as an entire group of individual or objects having common observable characteristic. It is for the benefit of the population that researches are done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming (Mugenda&Mugenda, 2003).

The target population for this study was drawn from statistics of banks from CBK. the target population was 11, Tier I Banks in Nakuru Town. The respondents were drawn from; Management, tellers, loan’s department, accounts opening department and Customer Care.

Table 1: Target Population

<table>
<thead>
<tr>
<th>Department</th>
<th>No of staff targeted</th>
<th>No of banks</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>2</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Tellers</td>
<td>3</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>Loans Department.</td>
<td>2</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Accounts Opening</td>
<td>2</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Customer Care</td>
<td>1</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

Sample and Sampling Techniques
The sampling frame describes the list of all population units from which the sample is selected (Cooper & Schindler, 2008). It is a physical representation of the target population and comprises all the units that are potential members of a sample (Kothari, 2004).

The selection of the respondents was done through a stratified random sampling technique. A stratified random sampling technique is justified for use in this study as it is on scientific rules of probability, ensures adequate representation of all classes of employees and reduces the probability of respondent bias in the study i.e. respondents predominantly selected from one class.

The use of 50 respondents in the study was justified as it was in line with the recommendations of Mugenda and Mugenda (2003) who indicated that a descriptive study should include at least 30% of the total population. This sample enabled us to collect data across various departments in the selected banks.
Table 2. Sampling Frame

<table>
<thead>
<tr>
<th>Department</th>
<th>Sample Frame</th>
<th>Sample Size</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>22</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>Tellers</td>
<td>33</td>
<td>11</td>
<td>33%</td>
</tr>
<tr>
<td>Loans Department.</td>
<td>22</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>Accounts Opening</td>
<td>22</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>Customer Care</td>
<td>11</td>
<td>11</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>110</strong></td>
<td><strong>55</strong></td>
<td><strong>50%</strong></td>
</tr>
</tbody>
</table>

Data Collection
Data collection refers to the means by which information is obtained from the selected subjects of an investigation or a study. The type of data collected for this study was both Primary and secondary data for the purpose of analyzing the effect of financial fraud on financial performance of Commercial Banks. Primary data was obtained through self-administered questionnaire and will contain a list of closed ended questions. Closed ended questions help in collecting viable quantitative data. (Mugenda&Mugenda, 2003). The secondary data sources included Central Bank of Kenya, and filed annual reports from the banks.

Data Analysis Approach
(a) Descriptive analysis techniques. The descriptive statistical method; SPSS was used to describe the data and determine the extent used. Descriptive statistics such as frequencies, percentages, means and standard deviation will be used to report and present data. Financial ratio analysis will be used to measure the organization performance (Kothari 2004). Return on Assets (ROA) ratio was specifically used.
(b) The usage of Multiple Regression analysis model was used to determine the effect of independent variables on the dependent variable and was measured through Correlation coefficient be used to investigate how the independent variables inter-relate with the dependent variable. The Multi-regression analysis will take the form below:

\[ Y = a + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e \]

Where; \( Y \) = Financial performance of Commercial Banks as expressed by ROA- ratio of after tax profits to total assets

\( x_1 \) = % of Cheque Fraud.
\( x_2 \) = % of Fraudulent Invoices and Payments.
\( x_3 \) = % of Fraudulent Loans.
\( x_4 \) = % of Money Laundering.
a= The constant of regression  
β= The standardized correlation co-efficient  
e= The error term. (Assumed to have a constant variance).

Data Validity and Reliability  
Reliability is the consistency of a set of measurement items while validity indicates that the instrument is testing what it should. A measure is considered reliable if a person’s score on the same test given twice is similar. Reliability is not measured but it is estimated and does not, however, imply validity because while a scale may be measuring something consistently, it may not necessarily be what it is supposed to be measuring. To ensure that data validity and reliability, data analyzed was obtained from Central Bank of Kenya publications.

ANALYSIS AND DISCUSSION OF FINDINGS  
Inferential statistics  
Inferential statistics makes inferences about populations using data drawn from the population in an effort to reach conclusions that extend beyond the immediate data alone.

Correlation analysis  
The study analyzed the relationships that are inherent among the independent and dependent variables as well as among the independent variables/ factors. The results regarding this were summarized and presented in table 3.

Table 3: Summary of Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Cheque</th>
<th>Invoices</th>
<th>Loans</th>
<th>Money laundering</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N = 50</strong></td>
<td>Cheque</td>
<td>Invoices</td>
<td>Loans</td>
<td>Money laundering</td>
<td>Performance</td>
</tr>
<tr>
<td>Cheque</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invoices</td>
<td>Pearson Correlation</td>
<td>.701**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>Pearson Correlation</td>
<td>.721**</td>
<td>.653**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money laundering</td>
<td>Pearson Correlation</td>
<td>633</td>
<td>674</td>
<td>544</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0001</td>
<td>.000</td>
<td>.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Performance</td>
<td>Pearson Correlation</td>
<td>.670**</td>
<td>.590**</td>
<td>.621**</td>
<td>722**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0001</td>
<td>.000</td>
<td>.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>
A correlation analysis to determine whether cheque had an influence on increase in financial performance shows a positive and significant relationship exist \((r=0.670, \alpha = 0.01)\). This suggests that cheques were an important factor in improving performance.

The correlation analysis to determine whether invoices had an influence on shows a relationship exist \((r = 0.590 \alpha = 0.01)\). This implies that invoices were significant to increased performance.

The study also sought to determine whether loans had influence increase in performance shows a positive and significant relationship exists \((r = 0.621\ \alpha = 0.01)\). The relationship is high suggesting loans being a significant factor in increased performance.

The study also sought to determine whether money laundering had influence increase in performance shows a positive and significant relationship exists \((r = 0.722 \alpha =0.01)\). The relationship is high suggesting money laundering being a significant factor in increased performance.

It can therefore be concluded that all the variables were significant to the study problem although the degrees of influence varied.

**Regression analysis**

A Multiple linear regression model was used to predict increase in performance in the study. The coefficient of determination, \(r^2\), is useful because it gives the proportion of the variance (fluctuation) of one variable that is predictable from the other variable. It is a measure that allows us to determine how certain one can be in making predictions from a certain model/graph. The coefficient of determination is the ratio of the explained variation to the total variation. The coefficient of determination is such that \(0 \leq r^2 \leq 1\), and denotes the strength of the linear association between \(x\) and \(y\). The coefficient of determination represents the percent of the data that is the closest to the line of best fit.

The prediction was carried out basing on the effect of the three independent factors: cost of credit, non-repayment and training. In addition, the b coefficients for each independent variable generated from the model was subjected to a t-test, in order to test each of the hypotheses under study.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>(R^2)</th>
<th>Adjusted (R^2)</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.804</td>
<td>0.647</td>
<td>0.638</td>
<td>0.56069</td>
<td>1.929</td>
</tr>
</tbody>
</table>

a. **Predictors:** (Constant), financial Performance

b. **Predictors:** (Constant), Cheques, Invoices, Loans, Money Laundering
The adjusted $R^2$ is an indicator of generalizability as it is used to estimate the expected shrinkage in $R^2$ that would not generalize to the population because of the solution being over-fitted to the data set by including independent variables. From table 4, the findings indicated that if $r = 0.647$, then $r^2 = 0.638$, which means that 63% of the total variation in $y$ can be explained by the linear relationship between $x$ and $y$ (as described by the regression equation). The other 37% of the total variation in $y$ remains unexplained. The coefficient of determination is a measure of how well the regression line represents the data. If the regression line passes exactly through every point on the scatter plot, it would be able to explain all of the variation. The further the line is away from the points, the less it is able to explain.

**The ANOVA**

The probability value (p-value) of a statistical hypothesis test is the probability of getting a value of the test statistic as extreme as or more extreme than that observed by chance alone, if the null hypothesis $H_0$ is true. The p-value is compared with the actual significance level of the test and, if it is smaller, the result is significant. The smaller it is the more convincing is the rejection of the null hypothesis. It attempts to determine if there is a statistically significant difference between the groups that is not related to sampling error. This is to say, all groups might be different, or perhaps only one of four groups is statistically different from the others.

The Anova model in table 5 showed that the regression model was also adequate. ANOVA uses F-tests to statistically test the equality of means. The effect size of the regression model was shown to be over 75 that contributed by the residual mean sum of squares. The F-ratio was 75.739 at 4 degrees of freedom which are the four factors. This represented the effect size of the regression model and was significant with a p-value of 0.000.

<table>
<thead>
<tr>
<th>Source Of Difference</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>119</td>
<td>7</td>
<td>23.81</td>
<td>75.739</td>
<td>0.000</td>
</tr>
<tr>
<td>Within groups</td>
<td>65.075</td>
<td>267</td>
<td>0.314</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>184.124</td>
<td>284</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: df = degrees of freedom; $F =$ Anova; $\alpha =$ level of significance; $F_0 =$ calculated value of $F$; $F_c =$ the critical value of $F$; $\alpha_0 =$ calculate value of $\alpha$; and $\alpha_c =$ the critical value of $\alpha$.

The ANOVA analysis is intended to investigate whether the variation in the independent variables explain the observed variance in the outcome – in this study the performance of
commercial banks. In this context, as have been presented in the table above, the dependent variable is the level of performance whiles the independent or the predictors, Cheques, Invoices, Loans, Money Laundering.

**Coefficients Model**

Regression coefficients represent the mean change in the response variable for one unit of change in the predictor variable while holding other predictors in the model constant. This statistical control that regression provides is important because it isolates the role of one variable from all of the others in the model.

Table 6: Coefficients Model

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.167</td>
<td>.042</td>
<td>3.992</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Cheques</td>
<td>.407</td>
<td>.092</td>
<td>.485</td>
<td>4.408</td>
<td>.000</td>
</tr>
<tr>
<td>Invoices</td>
<td>.172</td>
<td>.058</td>
<td>.189</td>
<td>2.982</td>
<td>.003</td>
</tr>
<tr>
<td>Loans</td>
<td>.065</td>
<td>.075</td>
<td>.086</td>
<td>.867</td>
<td>.001</td>
</tr>
<tr>
<td>Money laundering</td>
<td>.544</td>
<td>.043</td>
<td>.454</td>
<td>.2822</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Dependent Variable: Increase in performance

The regression results in table 6 show that each of the predicted parameters in relation to the independent factors were significant; \( \beta_1 = 0.407 \) (\( p\)-value = 0.000 which is less than \( \alpha = 0.05 \)) which implies that we reject the null hypothesis stating that there is no significant relationship between cheques and financial performance. This indicates that for each unit increase in the positive effect of cheque, there is 0.407 units increase financial performance. Furthermore, the effect of cheques was stated by the t-test value = 4.408 which implies that the standard error associated with the parameter is less than the effect of the parameter.

The table also shows that \( \beta_2 = 0.172 \) (\( p\)-value = 0.000 which is less than \( \alpha = 0.05 \)) which indicates that we reject the null hypothesis stating that there is no significant relationship between invoices and financial performance. This implies that for each unit increase in invoices, there is up to 0.172 unit increase in financial performance. Also the effect of invoice is shown by the t-test value of 2.982 which implies that the effect of non-repayment surpasses that of the error by over 2 times.
The value of $\beta_3 = 0.065$ (p-value = 0.087 which is less than $\alpha = 0.05$) which implies that we reject the null hypothesis stating that there is no significant relationship between money laundering and financial performance. This indicates that for each unit increase in training, there is up to 0.065 units increase in performance. The effect of money laundering is stated by the $t$-test value = 0.867 which indicates that the effect of money laundering is over 0 times that of the error associated with it.

The rule of thumb was applied in the interpretation of the variance inflation factor (VIF). From table 6, the VIF for all the estimated parameters was found to be less than 4 which indicate the absence of multi-collinearity among the independent factors. This implies that the variation contributed by each of the independent factors was significantly independent and all the factors should be included in the prediction model.

SUMMARY

In determining the effects of financial fraud on financial performance of commercial banks in Kenya, the study first found it necessary to evaluate the performance of the bank’s financial performance variables under consideration i.e. ROA as the dependent variable and annual liquidity ratios and annual fraud loss as independent variables influencing the financial performance. Their mean, standard deviation, minimum and maximum values were determined. From the findings the positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA.

The study further measured the degree of association between financial fraud and the magnitude of the influence on financial performance of commercial banks (ROA). The result showed that banks’ financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of financial performance of commercial banks in Kenya for the period considered. The statistics were done at 95% confidence levels.

From the Chi-square results, the better financial performing banks recorded a higher mean as compared to the poor financial performing banks. However, the variance for the better financial performing banks and poor financial performing banks showed statistically significance.

Furthermore, at two- tailed, the $t$- calculated was seen to be greater than the $t$-tabulated. In carrying out carried out the hypothesis testing between annual liquidity ratios and annual fraud loss and commercial banks financial performance. The study showed a strong, significant, positive relationship between annual liquidity ratios and financial performance of commercial banks in Kenya and also a strong, significant, positive relationship between annual fraud loss
and financial performance of commercial banks in Kenya. Therefore basing on these findings the study rejected the null hypothesis that there is no relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya and accepted the alternative hypothesis that there exists a relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya.

**CONCLUSION**

In descriptive statistics, the mean, standard deviation, minimum and maximum values of annual liquidity ratios and annual fraud loss were determined. From the findings the positive values of the variables indicated that they are statistically significant in influencing financial performance of ROA. The result showed that banks’ financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation.

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**POLICY RECOMMENDATIONS**

Basing on the results from the study, the study recommends that commercial banks in Kenya should put in place fraud detection mechanisms by setting up an efficient, reliable and working fraud detection department to oversee all the transactions that are considered prone to fraud to minimize the vice for them to maximize profits for better financial performance. Other mechanisms considered viable for minimizing banks financial fraud should be put in place.

The study further recommends that liquidity ratios of commercial banks should be taken in to consideration to make sure that the available net liquid assets meets the short term banks liabilities (customer deposits) to avoid short term financial distress. This can be done by
converting long term assets into liquid cash and through mobilizing more savings from the banks customers for long term to meet short term obligations. The financial department should continuously work with other departments to ensure that liquidity ratios remain manageable under the financial period to boost their gains for positive financial performance outcomes.

This study can be repeated with a wider population of study across all countries in East Africa. The formation of the East African Community is a current issue affecting the horn of Africa region. Such a study conducted for this region will provide handy and current input for decision making concerning effects of fraud on performance of commercial banks in the region. This paper recommends that such a study can be done to make the findings relevant to the East African region.

SUGGESTIONS FOR FURTHER STUDY

There is need for further studies to carry out similar study for a longer time period. A similar study should also be carried out on the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya incorporating more variables determining banks financial performance as opposed to the current study which took into consideration only two variables - financial frauds and liquidity.

The study can also be done using primary data instead of relying on data secondary only. The assumption is that the weaknesses associated with past records of secondary will be mitigated by the use of current primary data. Secondary data usually does not capture current issues. This study, therefore, recommends that this study be done bearing in mind the use of primary data.

REFERENCES


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