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The background of the cover features a hand pointing upwards towards a glowing circle. Inside the circle, the word 'Strategy' is written in a large, dark font. The hand is positioned in the lower center of the frame, with the index finger pointing towards the circle. The background is a gradient of blue and white, with a large, curved red and blue line arching over the top half of the image.

Strategy

**EFFECT OF INTERNAL CONTROLS ON FRAUD THE DETECTION
AND PREVENTION AMONG COMMERCIAL BANKS IN KENYA**

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EFFECT OF INTERNAL CONTROLS ON FRAUD THE DETECTION AND PREVENTION AMONG COMMERCIAL BANKS IN KENYA

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Abstract

Purpose: The study sought to investigate the effect of internal controls on fraud detection and prevention among commercial banks in Kenya.

Methodology: The study adopted an explanatory research design. The population of the study was all the 43 commercial banks operating in Kenya in the study period. The study conducted a census on all the 43 commercial banks. The study used primary data. An ordinary linear regression model was used. The regressions were conducted using statistical package for social sciences (SPSS) version 20.

Results: The regression results indicated that there was a negative and significant relationship between reconciliation control and level of fraud prevention and detection. The results also indicated that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection while the relationship between reporting and budget control and level of fraud prevention and detection was positive and significant.

Unique contribution to theory, practice and policy: Following the study findings, the study recommended that Commercial banks should fully reconcile their accounts more frequently in order to reduce the cases of more incidences of frauds. The study also recommends that commercial banks should put in place stronger financial governance control measures through more frequent meetings among the members of the risk management committee and also finance and investment committee. Another recommendation made by the study is that commercial banks should reduce the variances in budgets through better reporting and budgetary control measures as it will reduce cases of frauds.

Keywords: *reconciliation controls, financial governance controls, reporting and budget controls, fraud*

1.0 INTRODUCTION

A system of internal controls is a critical component of bank management and a foundation for the safe and sound operation of banking organizations. A system of strong internal controls can help to ensure that the goals and objectives of a banking organization will be met, that the bank will achieve long-term profitability targets, and maintain reliable financial and managerial reporting (Markowski & Mannan, 2008). Such a system can also help to ensure that the bank will comply with laws and regulations as well as policies, plans, internal rules and procedures, and decrease the risk of unexpected losses or damage to the bank's reputation. The Basel Committee, along with banking supervisors throughout the world, has focused increasingly on the importance of sound internal controls. This heightened interest in internal controls is, in part, a result of significant losses incurred by several banking organizations. An analysis of the problems related to these losses indicates that they could probably have been avoided had the banks maintained effective internal control systems. Such systems would have prevented or enabled earlier detection of the problems that led to the losses, thereby limiting damage to the banking organization. A system of accounting and records keeping will not succeed in completely and accurately processing all transaction unless controls known as internal controls are built into the system (Opromolla & Maccarini, 2010).

Internal controls are processes designed to provide reasonable assurance that management achieves effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations (Grant, Miller, & Alali, 2008). A system of internal controls potentially prevents errors and fraud through monitoring and enhancing organizational and financial reporting processes as well as ensuring compliance with pertinent laws and regulations (Rae and Subramanian, 2008). Reasonable assurance is provided when cost effective actions are taken to restrict deviations, such as improper or illegal acts to a tolerable level. The internal audit reviews the effectiveness of the internal control system to ascertain whether the system is functioning as intended (Fadzil, Haron & Jantan, 2005).

The system of internal controls should emphasize on, proper identification measurement and monitoring of risks, control activities for each level of operation, creation of reliable information systems that promptly reports anomalies and detailed reporting of all operations and monitoring of all the activities (Opromolla & Maccarini, 2010). Internal controls are affected by a company's board of directors, management and other personnel and are designed to ensure effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations (Spira & Page, 2003). The management should assess and report the effectiveness of an institution's internal controls to its stakeholders (Rezaee, 1995). Internal controls should have the following as its components, control environment, risk assessment, control activities, information and communication and monitoring activities (Basel Committee, 2011). These interrelated components of internal control must be present and functioning properly in order to have an adequate and functioning internal control system (Rezaee, 1995).

1.1 1 Internal Controls

Fraud deterrence are measures to stop fraud occurring in the first place, whereas fraud detection involves identifying fraud as quickly as possible once it has been perpetrated (Naicker, 2006). Zhang (2012) states that fraud detection and deterrence must operate together. Naicker (2006) further states that fraud detection is a continuous process as criminals always adapt to new ways of committing fraud once they know of the existence of a detection method. Fraud

deterrence/prevention involves good division of responsibilities, supervision of staff, monitoring work performance and also putting measures in place to ensure that even when systems are accessed that there is proper control (Kimani, 2011).

1.1.2 Fraud Detection and Prevention

Fraud has been in existence throughout history and has taken many different dimensions. Bank fraud has grown with advent of the banking industry, and has been facilitated by technological innovations and the widespread use of the Internet. According to the fraud triangle (Cressey, 2003) for fraud to occur the three factors; pressure, rationalization and opportunity should be present. Bank employees have knowledge of the systems as well as classified and confidential information which together with technological advancement can give them the opportunity to commit frauds. All they need is some pressure and the rationalization and that way they become part of fraud cartels that are fleecing millions of shillings from the banks.

According to a report by consultant firm, Deloitte Kenyan banks were victims of more than half the Sh4.1 billion (\$48.3 million) fraud that hit East African banks in 2012 as technology made the crime easier. At least Ksh1.5 billion (\$17.64 million) was stolen from Kenyan banks in the past one year, in schemes hatched by technology-savvy bank employees. This can be attributed to failure by both the bank processes and the employees to detect and control fraud. Security experts say the amounts reported reflect only a small portion of the real losses suffered since banks prefer internal disciplinary measures in cases involving thieving employees (Kimani, 2013). This means that banks should be on an alert and should also revise their controls to keep up with fraud.

1.1.3 Effect of Internal Control Systems on Fraud Detection and Prevention

Effective Internal control systems are crucial in detecting and preventing fraud. The converse where non existence and ineffectiveness of internal controls do not facilitate fraud detection and prevention is also true (MicroSave, 2007). A June 2003 publication by the Institute of Internal Auditors wrote that “risk and control are virtually inseparable like two sides of a coin – meaning that risks first must be identified and assessed; then managed and mitigated by the implementation of a strong system of internal control”.

The regularity of fraud and misappropriation of funds is creating fear, anxiety, and a loss of confidence in the minds of bank customers. Also, poor internal control system leads to increase in bank losses (ACFE, 2010). Management is required to set up an internal control system but this system varies significantly from one organization to the next, depending on such factors as their size, nature of operations, and objectives. Since internal controls operate in an environment which influences its operations, proper care must be exerted into the implementation of these systems in order to achieve the utmost aim of the bank. This heightened interest in internal controls is, in part, a result of significant losses incurred by several banking organizations (Hochberg, Sapienza & Jorgensen, 2009). An analysis of the problems related to these losses indicates that they could probably have been avoided had the banks maintained effective internal control systems. Such systems would have prevented or enabled earlier detection of the problems that led to the losses, thereby limiting damage to the banking organization (Levi, 2008). Kenya has the highest incidences of fraud in the world, based on a global ranking of 78 countries surveyed (PwC, 2011). Commercial banks in Kenya are more

susceptible to fraud than commercial banks in her neighbouring countries in Eastern Africa (PWC, 2010).

Duffield & Grabosky, 2001; Zahra, Priem & Rasheed, 2005; Mustafa & Youssef (2010) concentrated on the causes and motivations to defrauding by staff. Other scholars, Alleyne and Howard, 2005; Bakre, 2007 & Lange (2008), studied the role of external auditors in fraud, detection and prevention and they produced conflicting findings. This shows that different opinions exist as to the effect of internal controls on fraud detection and prevention.

Njagi (2009) did a study on the effectiveness of know your customer policies adopted by commercial banks in Kenya in reducing money laundering and fraud incidences and concluded that KYC controls had a significant effect on the fraud incidences in commercial banks. However, the conceptual scope of the study was narrow as it only focused on prevention mechanisms. Kiprop (2010) carried out a study on responses to fraud related challenges by Barclays bank of Kenya and concluded that the bank had put in place fraud detection systems. However, the study failed to assess the effectiveness of the fraud detection systems that had been put in place. Munyua (2013) focused on operational response strategies to payment card fraud by commercial banks in Kenya and concluded that a mix of operational strategies have been employed by commercial banks. However, the study was narrow as it only focused on credit card fraud only. Wanyama (2012) investigated the effectiveness of fraud response strategies adopted by co-operative bank of Kenya limited and concluded that that ineffective strategies cannot adequately control fraud. The study was narrow in scope as it only concentrated on one bank.

It is for this research gaps that this study sought to answer the following research question; what is the effect of internal controls on fraud detection and prevention among commercial banks in Kenya?

1.3 Research Objectives

- i. To establish the effect of reconciliation controls on the level of fraud prevention and detection in commercial banks in Kenya
- ii. To determine the effect of financial governance controls on the level of fraud prevention and detection in commercial banks in Kenya
- iii. To investigate the effect of reporting and budget controls on the level of fraud prevention and detection in commercial banks in Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical Foundations of the Study

2.2.1 The Fraud Triangle Theory

Albrecht et al., (2009) States that fraud is composed of three elements, namely a perceived pressure, a perceived opportunity and rationalization of the act of fraud; these three elements are called the fraud triangle. Every act of fraud, irrespective of whether it is done against an entity or on behalf of an entity, is always composed of the three elements (Albrecht et al., 2009). The three elements in the fraud triangle are interactive, for instance the greater the perceived opportunity or the more intense the pressure, the less rationalization it takes for someone to commit fraud (Albrecht, Turnbull, Zhang, & Skousen, 2010). However, fraud is a complex matter and is a function of a combination of factors (Rae & Subramaniam, 2008). For instance in some cases, although internal controls were poor, there were no incidence of fraud, while in other

cases even though good internal controls existed employees still managed to circumvent the internal controls to commit fraud (Rae &Subramaniam, 2008). An understanding of how opportunities, pressures and rationalizations contribute to fraud in organizations can assist management to easily recognize the areas of susceptibility to fraud and strengthen these areas (Albrecht et al., 2010).

Fraud perpetrators must have some way to rationalize their actions as acceptable (Albrecht et al., 2009). Justification of fraudulent behavior is usually as a result of a fraudster's lack of personal integrity or other moral reasoning (Rae &Subramaniam, 2008). Individuals do not commit fraud unless they can justify it as being consistent with their own personal code of ethics, as personal integrity may be the key limiting factor in keeping a person from misappropriating assets (Hillison et al., 1999). Rationalization by fraudsters emanates from their feeling that the victims owe them and that they deserve more than they are getting (Mutua, 2011). Some individuals possess an attitude, character or set of ethical values that allow them to knowingly and intentionally commit a dishonest act (Cohen et al., 2011). A strong moral code can prevent individuals from using rationalizations to justify illicit behavior; internal auditors however should assume that anyone is capable of justifying the commission of fraud (Hillison et al., 1999).

2.2 Empirical Studies

Njenga and Osiemo (2013) sought to investigate effect of fraud risk management on organization performance with focus to deposit-taking micro finance institutions in Kenya. The study was guided by the following specific objectives, that is, anti-fraud policies, corporate governance practices, fraud detection mechanisms and systems of internal controls and their effect on performance of deposit-taking microfinance institutions in Kenya. The target population of this study was all deposit-taking microfinance institutions in Kenya. The study adopted stratified sampling with the sample been drawn from the senior management, middle management and lower management staff of the head office branches of the 8 deposit-taking microfinance institutions. The study used both primary data and secondary data. Secondary data accessed from the CBK (2012) report while a semi-structured questionnaire was used for collecting primary data from the respondents. Both qualitative and quantitative analysis was carried out. The study concluded that, most of the organizations had anti-fraud policies which were also effective. On the same, the study established that the institutions have separate and distinct anti-fraud policy from a code of conduct policy. The institution's employees were trained on anti-fraud mechanisms and that management reports on the occurrence and the cost of fraud to staff of the institution. The findings also indicated that the institutions have documented policies and procedures which are clearly communicated to all employees and that employee understand what fraud constitutes in all products of the deposit-taking microfinance while Anti-Fraud Policies affect organization performance to a great extent.

3.0 RESEARCH METHODOLOGY

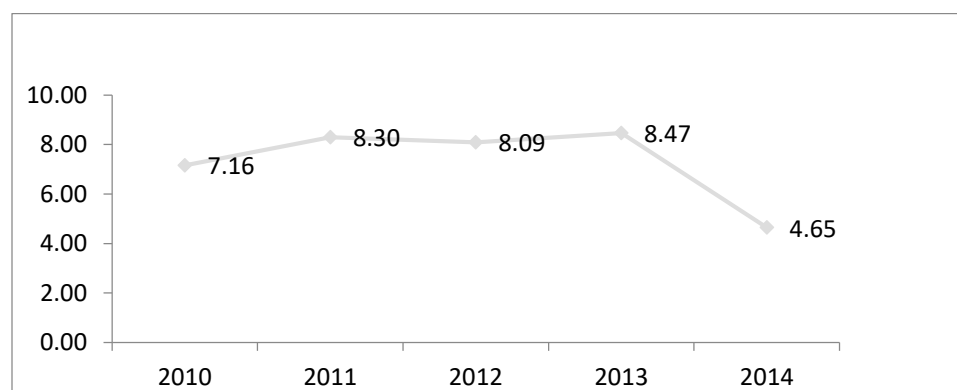
The study adopted an explanatory research design. The population of the study was all the 43 commercial banks operating in Kenya in the study period. The study conducted a census on all the 43 commercial banks. The study used primary data. An ordinary linear regression model was used. The regressions were conducted using statistical package for social sciences (SPSS) version 20.

4.0: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Trend Analysis

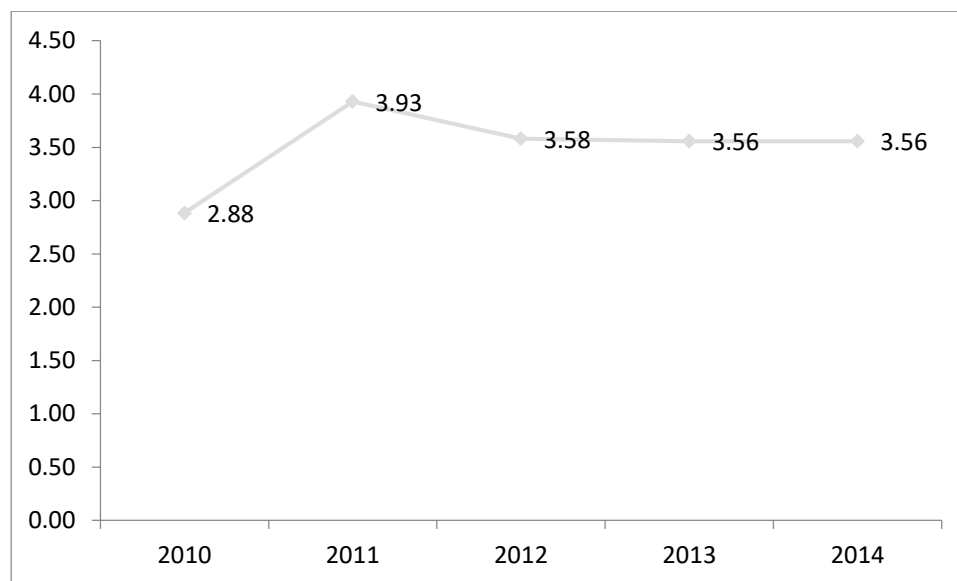
This section analyzed the demographic characteristics/summary statistics for the commercial banks. The results in figure 4.1 indicated the mean number of accounts that were fully reconciled to be 7.16 in the year 2010. This increased to 8.30 in the year 2011 before gradually decreasing to 8.09 in the year 2012. The following year saw the number of fully reconciled accounts rise to 8.47. The year 2014 recorded the lowest mean number of fully reconciled accounts at 4.65.

Figure 1: Reconciliation control-Year 2010 to year 2014



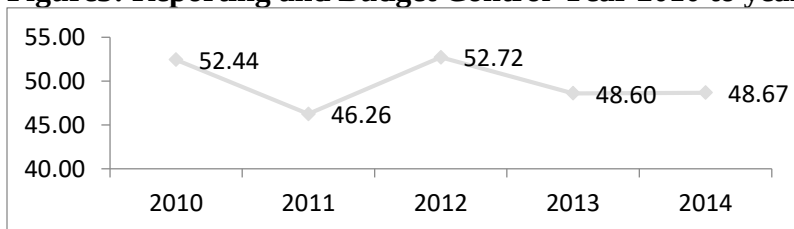
The results in figure 2 indicated that the frequency of finance and investment committee meetings was 2.88 times on average across all banks in the year 2010. This increased to an average of 3.93 times in 2011, the highest frequency recorded for the study period before decreasing gradually to an average of 3.58 times in 2012. The frequency of finance and investment committee meetings for the period 2013 and 2014 remained constant at an average of 3.56 times.

Figure 2: Financial Governance Control-Year 2010 to year 2014



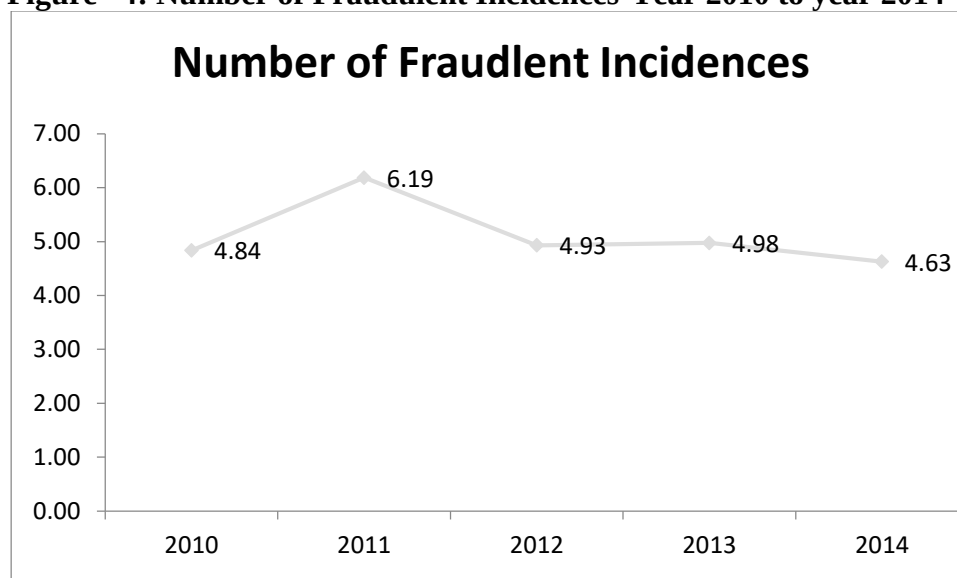
The results in figure 4.3 indicated that the mean amount of budget variances for the year 2010 was Kenya shillings 52.44 million. This drastically decreased to Kenya shillings 46.26 in 2011 before increasing to 52.72 million in 2012, the highest mean budget variance recorded for the study period. There was a sharp decrease in the mean budget variances in the year 2013 to 48.60 million and in the year 2014, this amount increased to a mean of Kenya shillings 48.67 million.

Figure3: Reporting and Budget Control-Year 2010 to year 2014



The results in figure 4 indicated that the average number of fraudulent incidences in the year 2010 was 4.84 cases. This increased drastically to 6.19 cases in the year 2011 on average, the highest number of incidences recorded for the study period. This was followed by a drastic decrease in the number of fraudulent incidences to 4.93 cases on average in the year 2012. The number of fraudulent incidences in 2013 was 4.98 cases on average before decreasing in the year 2014 which recorded an average of 4.63 cases.

Figure 4: Number of Fraudulent Incidences-Year 2010 to year 2014



4.2 Descriptive statistics

The descriptive statistics in Table 1 gives the mean, standard deviation, minimum value and maximum value of the study variables. The mean reconciliation control as shown by the number of fully reconciled accounts was 7.3. The minimum average number of fully reconciled accounts was 5 and maximum was 9. The standard deviation was 1.10 which indicated a small variation in the number of fully reconciled accounts among the commercial banks in the study period.

The mean financial governance control as shown by the frequency of finance and investment committee meetings was 3.525581 times. The minimum average number of meetings was 2 and a maximum of 4. The standard deviation was 0.530989 which indicated a large variation in the frequency of finance and investment committee meetings among the commercial banks in the study period.

The mean reporting and budget control as indicated by the amount of budget variances was 49.73954 million Kenya shillings. The minimum average budget variance was 26.4 million Kenya shillings and a maximum of 78.4 million Kenya shillings. The standard deviation was 10.45622 which indicated a large variation in the amount of budget variances among commercial banks in the study period.

The mean level of fraud detection and prevention as indicated by the number of fraudulent incidences was 5.111628 incidences. The minimum average number of fraudulent incidences was 2 cases and a maximum of 8 cases. The standard deviation was 1.302234 which indicated a large variation in the number of fraudulent incidences among commercial banks in the study period.

Table 1 Descriptive statistics

	Mean	Std. Deviation	Minimum	Maximum
Reconciliation control	7.3	1.103	5	9
Financial governance control	3.525	0.530989	2	4
Reporting and budget control	49.739	10.45622	26.4	78.4
Level of fraud detection and prevention	5.118	1.302234	2.2	8.2

4.3 Analytical Model

This section presented the correlation and regression analysis results. The correlation analysis which showed the direction of association of the variables and their level of significance was presented first.

4.3.1 Correlation Analysis

Correlation analysis was conducted to reveal the direction of association of the variables. The correlation analysis results are presented in Table 2.

Table 1: Correlation Results

		Reconciliation control	Financial governance control	Reporting and budget control	level of fraud prevention and detection
Reconciliation control	Pearson Correlation	1	0.178	-0.161	-.594**
	Sig. (2-tailed)		0.255	0.303	0.00
Financial governance control	Pearson Correlation	0.178	1	0.089	-.401**
	Sig. (2-tailed)	0.255		0.572	0.008
Reporting and budget control	Pearson Correlation	-0.161	0.089	1	.363*
	Sig. (2-tailed)	0.303	0.572		0.017
level of fraud prevention and detection	Pearson Correlation	-.594**	-.401**	.363*	1
	Sig. (2-tailed)	0.00	0.008	0.017	

Results in Table 4.2 reveal that the correlation between reconciliation controls and level of fraud prevention and detection is negative and significant ($R = -0.594$, $p \text{ value} = 0.000$). This implies that an increase in reconciliation controls is associated with a decrease in level of fraud prevention and detection.

The findings also reveal that the correlation between financial governance control and level of fraud prevention and detection is negative and significant ($R = -0.401$, $p \text{ value} = 0.008$). This implies that an increase in financial governance control is associated with a decrease in level of fraud prevention and detection.

Reporting and budget control was found to be positively correlated to level of fraud prevention and detection ($R = 0.363$, $p \text{ value} = 0.017$). This implies that an increase in budget variances which represents financial control is associated with an increase in level of fraud prevention and detection.

4.3.2 Regression Analysis

The relationship between the predictor variables (reconciliation controls, financial governance control, Reporting and budget control) and the dependent variable was investigated using a regression analysis.

The regression analysis results presented in Table 4.3 indicates that the coefficient of determination ($R \text{ squared}$) was 0.539 which implies that 53.9% of the changes in level of fraud prevention and detection is explained by the independent variables (reconciliation controls, financial governance control, Reporting and budget control) while 45.1 % of the variations in level of fraud prevention and detection are explained by other factors not included in the model.

Table 2: Coefficient of Determination

Model Summary				
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734a	0.539	0.504	0.917375

Results in table 4 presents the overall model significance. The results indicate that the overall model was significant. The reported F statistic of 15.211 in table 4.4 was larger than the F critical (F tabulated). The reported p value was lower than the critical p value of 0.05. The findings imply that the independent variables are good joint predictors of level of fraud prevention and detection.

Table 3: Overall Model Significance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	38.403	3	12.801	15.211	0.000
Residual	32.822	39	0.842		
Total	71.224	42			

The regression coefficients and their associated t statistics and p values are presented in table 4.5. The results indicate that there is a negative and significant relationship between reconciliation control and level of fraud prevention and detection .This finding was supported by a regression coefficient of -0.57 and a p value of 0.000. The reported p value was less than the critical p value of 0.05. A regression coefficient of -0.57 implies that a one unit increase in reconciliation control leads to a 0.57 units decrease in level of fraud prevention and detection.

The results also indicate that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection .This finding was supported by a regression coefficient of -0.842 and a p value of 0.004. The reported p value was less than the critical p value of 0.05. A regression coefficient of -0.842 implies that a one unit increase in financial governance control leads to a 0.842 units decrease in level of fraud prevention and detection.

Results further indicated a positive and significant relationship between reporting and budget control and level of fraud prevention and detection .This finding was supported by a regression coefficient of 0.039 and a p value of 0.007. The reported p value was less than the critical p value of 0.05. A regression coefficient of 0.039 implies that a one unit increase in reporting and budget control leads to a 0.039 units increase in level of fraud prevention and detection.

Table 4: Regression Coefficients

Coefficients	B	Std. Error	t	Sig.
(Constant)	10.285	1.439	7.146	0.000
Reconciliation control	-0.57	0.133	-4.299	0.000
Financial governance control	-0.842	0.273	-3.084	0.004
Reporting and budget control	0.039	0.014	2.847	0.007
Dependent Variable: level of fraud prevention and detection				

Level of fraud prevention and detection = $10.285 - 0.57 \text{ Reconciliation control} - 0.842 \text{ Financial governance control} + 0.039 \text{ Reporting and budget control}$

4.4 Discussions

The results indicated an increase in the mean number of accounts that were fully reconciled from 7.16 in the year 2010 to 8.30 in the year 2011 before gradually decreasing to 8.09 in the year 2012. The following year saw the number of fully reconciled accounts rise to 8.47 while in the year 2014 the number of fully reconciled accounts was the lowest at 4.65. The frequency of finance and investment committee meetings was 2.88 times on average across all banks in the year 2010. This increased to an average of 3.93 times in 2011, the highest frequency recorded for the study period before decreasing gradually to an average of 3.58 times in 2012. The frequency of finance and investment committee meetings for the period 2013 and 2014 remained constant at an average of 3.56 times. The results also indicated that the mean amount of budget variances for the year 2010 was Kenya shillings 52.44 million. This drastically decreased to Kenya

shillings 46.26 in 2011 before increasing to 52.72 million in 2012, the highest mean budget variance recorded for the study period. This figures decreased to 48.60 million in 2013 and 48.67 in the year 2014. In the same period of time, the average number of fraudulent incidences in the year 2010 was 4.84 cases and it increased drastically to 6.19 cases in the year 2011 on average, the highest number of incidences recorded for the study period. This was followed by a drastic decrease in the number of fraudulent incidences to 4.93 cases on average in the year 2012. The number of fraudulent incidences in 2013 was 4.98 cases on average before decreasing in the year 2014 which recorded an average of 4.63 cases.

Correlation analysis reveal a negative and significant association between reconciliation controls and level of fraud prevention and detection ($R = -0.594$, $p \text{ value} = 0.000$) which implies that an increase in reconciliation controls is associated with a decrease in level of fraud prevention and detection. The correlation between financial governance control and level of fraud prevention and detection was also negative and significant ($R = -0.401$, $p \text{ value} = 0.008$). This implies that an increase in financial governance control is associated with a decrease in level of fraud prevention and detection. On the other hand, reporting and budget control was found to be positively correlated to level of fraud prevention and detection ($R = 0.363$, $p \text{ value} = 0.017$) which implies that an increase in budget variances which represents financial control is associated with an increase in level of fraud prevention and detection.

The regression results indicated a negative and significant relationship between reconciliation control and level of fraud prevention and detection ($\text{Beta} = -0.57$, $p \text{ value} = 0.000$). The results also indicate that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection ($\text{Beta} = -0.842$, $p \text{ value} = 0.004$). Reporting and budget control was positively and significantly related to level of fraud prevention and detection ($\text{Beta} = -0.039$, $p \text{ value} = 0.007$).

The findings of the current study are consistent with the findings of the study by Wanyama (2012) which concluded that ineffective strategies cannot adequately control fraud.

The findings of the study are also consistent with the findings of a study by Kimani (2011) which concluded that frequent meetings were important in order for Barclays Bank of Kenya to be able to prevent and reduce frauds to the minimum.

The findings of the study are also consistent with the findings of the study by Omondi (2013) which indicated that the application of forensic accounting services on reconciliation led to increased fraud prevention in the commercial banks and the highest application was on enhancing quality of financial

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study sought to investigate the effect of internal controls on fraud detection and prevention among commercial banks in Kenya. The main problem was that there is increased level of fraud and misappropriation of funds in Kenyan commercial banks caused by poor internal control measures. The fact that Kenya has the highest incidences of fraud in the world, based on a global ranking of 78 Countries surveyed and also the findings that commercial banks in Kenya are more susceptible to fraud than commercial banks in her neighbouring countries in Eastern Africa formulated the basis of the research problem.

The trend analysis results indicated a decrease in the mean number of accounts that were fully reconciled for all the commercial banks in Kenya from 7.16 in the year 2010 to 4.65 in the year 2014. This is an indication of poor internal control measures. The frequency of finance and investment committee meetings increased from 2.88 times on average across all banks in the year 2010 to 3.56 times in the year 2014. The trends also indicated a consistent number of fraudulent incidences which were 4.84 cases in the year 2010 and 4.63 cases in the year 2014.

Correlation analysis revealed a negative and significant association between reconciliation controls and level of fraud prevention and detection ($R = -0.594$, $p \text{ value} = 0.000$) which implies that an increase in reconciliation controls is associated with a decrease in level of fraud prevention and detection. The correlation between financial governance control and level of fraud prevention and detection was also negative and significant ($R = -0.401$, $p \text{ value} = 0.008$). This implies that an increase in financial governance control is associated with a decrease in level of fraud prevention and detection. On the other hand, reporting and budget control was found to be positively correlated to level of fraud prevention and detection ($R = 0.363$, $p \text{ value} = 0.017$) which implies that an increase in budget variances which represents financial control is associated with an increase in level of fraud prevention and detection.

The regression results indicated a negative and significant relationship between reconciliation control and level of fraud prevention and detection ($\text{Beta} = -0.57$, $p \text{ value} = 0.000$). The results also indicate that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection ($\text{Beta} = -0.842$, $p \text{ value} = 0.004$). Reporting and budget control was positively and significantly related to level of fraud prevention and detection ($\text{Beta} = -0.039$, $p \text{ value} = 0.007$).

5.2 Conclusions

The study concluded that the reconciliation control measures among the commercial banks in Kenya has been poor over the study period as the mean number of accounts that were fully reconciled for all the commercial banks in Kenya showed decreasing trends from 2010 to 2014.

The study also concluded that there is a negative and significant relationship between reconciliation control and level of fraud prevention and detection. Commercial banks that fully reconcile more accounts face low number of fraud incidences.

The findings of the study also led to the conclusion that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection. Commercial banks which have a higher frequency of risk management committee meetings face low number of fraud incidences.

Another conclusion made by the study is that higher variances in the budget positively and significantly relate to level of fraud. Commercial banks that have poor reporting and budgetary control measures which lead to higher variances in budgets have higher incidences of frauds.

5.3 Recommendations

The study recommends that Commercial banks should fully reconcile their accounts more frequently in order to reduce the cases of more incidences of frauds.

The study also recommends that commercial banks should put in place stronger financial governance control measures through more frequent meetings among the members of the risk management committee and also finance and investment committee.

Another recommendation made by the study is that commercial banks should reduce the variances in budgets through better reporting and budgetary control measures as it will reduce cases of frauds.

5.4 Limitations of Study

However accurate, no study is free of limitations. The data used was collected from audit managers. The researcher relied on the information given by the respondent and there was no proof of whether it was accurate information.

The study only focused on 5 years (year 2010 to year 2014). Perhaps using a longer time period would have yielded different trends and results.

5.5 Areas for Further Study

The study suggests that further areas of study should focus on a longer time span than what the current study used. This would clarify whether the observed relationship changes over the years. Future studies can also use both secondary and primary data as this can help to bring out a clear picture and erase the bias which might otherwise be in the respondent's responses when primary data is used.

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