

**Effects of Fraud Management Strategies on the Performance of Selected Micro-Finance Institutions in Nairobi, Kenya**

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**Abstract:** The rise and growth of fraud in MFI's has been observed and can be explained through a model, which consists of three key factors: availability of opportunities, personal pressure, and the rationalization of the act. However, most micro finance institutions in Kenya face one problem; fraud. Locally, a number of studies have been carried out on fraud but most have concentrated on macro financial institutions and not Micro-finance institutions. The general objective was to evaluate the effect of fraud management strategies on performance of selected MFIs in Nairobi, Kenya. The target population therefore comprised of 406 management employees of the MFIs. Descriptive statistics such as frequencies, percentages, mean score and standard deviation were estimated for all the quantitative variables and information presented in form of tables and graphs. Inferential data analysis was done using Pearson correlation coefficient and regression analysis (multiple regression analysis). Multiple regression analysis was used to establish the relations between the independent and dependent variables. The finding showed that anti-fraud strategy affects the performance of selected micro finance institution in Kenya to a great extent. According to the findings internal control influences performance of selected MFIs in Kenya to a great extent. The findings further indicated that fraud detection influences performance of selected MFIs in Kenya to a very great extent. The findings also noted that corporate governance influences performance of selected MFIs in Kenya to a very great extent. Based on the research findings the study concludes that anti-fraud strategy affects the performance of selected micro finance institution in Kenya. The study also concludes that internal control influences performance of selected MFIs in Kenya. Study concludes that fraud detection influences performance of selected MFIs in Kenya. Finally, concludes that corporate governance influences performance of selected MFIs. Based on the research findings and conclusions the study recommends that management team of Micro finance institution in Kenya should adopt anti-fraud policies strategy in their organizations.

**Keywords:** *Anti-fraud policies, Corporate governance, Internal controls, Fraud detection, Performance of selected micro finance institutions in Kenya*

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## **Introduction**

Over the last one decade, micro financial institutions have seen a sharp increase in the number and value of frauds, much to their distress and poor performance. However 2009-2011 has seen a steep upsurge in incidences of fraud (Iyer & Samociuk, 2012). The main cause of the unprecedented upsurge can be attributed to staff complicity and collusion with third parties. The technological advancement being embraced by the industry poses a risk as system vulnerability is taken advantage of by fraudsters who gain insight of the weaknesses through collusion with dissident staff members. Frauds bedeviling banking industry are generally not new. Even though various measures have been taken to minimize the incidence of fraud, its incidence is still on the rise by the day because fraudsters have continued to device tactical ways of committing fraud (Finn & Cafferty, 2011). This has seen most micro financial institution record poor performance with a number of them winding up their business. This has become a point of great concern in the banking sector and by extension as well as every business financial institution in Kenya (Scholtz, 2007). Although this phenomenon is not unique to the banking industry or peculiar to Kenya alone, the high incidence 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 (Rogers, 2003). The threat of fraud to micro financial institutions emanates from both their internal and external environments. Fraud to be successful, three things must be present namely opportunity, pressure and rationalization Njoroge (2016). Micro financial institutions must therefore craft effective response strategies to manage the threat posed by fraud.

The strategies will invariably require allocation of resources in terms of human and financial, yet these resources are scarce and are competed for by various arms of the micro financial institutions. Without resources, micro financial institutions would not be able to manage fraud. The following are the common fraud typologies being experienced in the industry: Frauds through staff complicity and collusion, Frauds through Electronic Funds Transfer, IT frauds, Identity fraud, Forgery, Cheque frauds, Card Fraud, Clearing frauds (KRA frauds), Fraudulent letters of instructions, Recruitment fraud, False claims by staff, Procurement fraud, Advance fee fraud, Diversion of commissions, Cash suppression (Cressey, 2011). Fraud has become a major source of concern for Micro financial institutions in Kenya. The media is awash with news of how micro financial institutions are losing billions of shillings every year to fraudsters. While not all fraud losses are reported, figures from the Banking Fraud and Investigations Department (BFID) of the Central Bank of Kenya indicate that significant amounts are actually lost by micro financial institutions each year in this country. For listed micro financial institutions this had led to a drop in the value of their shares or more stringent oversight /control by their multiple regulators. List of non-performing loans has continued to grow day by day as employees who committee fraud collude with clients for their own gains. Faced with an ever increasing threat of fraud which erodes the micro financial institutions ' profits and customers' trust in their operations, micro financial institutions have to make choices on what strategies to adopt to most effectively manage this menace. In Kenya, we have seen most micro financial institutions restructuring and upgrading their banking platforms.

## **Statement of the Problem**

Opportunities to commit fraud are increasing, yet insufficient resources are being deployed to improve internal controls. PricewaterhouseCoopers (2011) discloses that one of the most challenging issues for businesses globally is fraud. Notwithstanding the imposed regulation and legislation or the control mechanisms implemented by the financial institutions, the intensity of economic crime and the concomitant financial and non-financial damage remains unchanged. In fact, as reported by PricewaterhouseCoopers (2007), out of every

two financial institutions worldwide, one had been a target of economic crime within the preceding two years. Inefficiency in corporate governance standards for example limited board size, gender diversity, inadequate formal procedures of financial reporting and others are the main challenges facing the sector in Kenya and it may upset the fast growth and also lead to poor financial performance of the microfinance institutions. As a result, various corporate governance reforms have been specifically emphasized on appropriate changes to be made to the board of directors in terms of its composition and size.

The rise and growth of fraud in MFI's has been observed and can be explained through a model, which consists of three key factors: availability of opportunities, personal pressure, and the rationalization of the act (Hogan, 2008). However, most micro finance institutions in Kenya face one problem; fraud. According to Donald Cressey's fraud model, every fraudster is confronted by perceived pressure either personal or work related. These pressures then inspire the person to commit fraud in order to meet the expectations of the pressure. The fraudster then believes that he/she can commit fraud without being caught. The opportunity to commit fraud in micro finance institutions presents itself due to weak internal controls and inadequate punishment if the fraudster is found. Justification of the acts of fraud is one key cause of individual fraud (Albrecht, Albrecht & Zimelman, 2009). Other factors that lead to the proliferation and increase of fraud in MFIs include: lack of expertise and experience in fraud detection, change resistance by superiors, having IT savvy employees, lack of competency and professionalism in the recruitment and selection of employees, rigid and poor judicial procedures and systems.

Also, court rulings and small fines which do not deter fraudsters, and lack of effective coordination and communication of fraud tracking, detection and prevention by MFIs in Kenya (KPMG, 2010). Locally, a number of studies have been carried out on fraud but most have concentrated on micro financial institutions and not Micro-finance institutions. For instance, Angira (2011) undertook a research on factors influencing credit card fraud in the banking sector; the case of Kenya Commercial Bank Mombasa County, Kenya. Mbwayo (2005) did a research on an investigation of the effect of fraud risk management by micro financial institutions in Kenya. Studies undertaken relating to fraud management strategies includes 2 case studies: Cheptumo (2010) response strategies to fraud-related challenges by Barclays Bank of Kenya and Kinyua (2011) strategic response of Equity Bank to fraud related risks. Wanemba (2010) undertook a research, strategies applied by commercial micro financial institutions in Kenya to combat fraud. While considerable studies have been undertaken on fraud, none of these studies have focused on the impact of fraud on performance. This has left a substantial knowledge gap that this research intends to bridge. This research therefore aimed to fill the existing knowledge gap by seeking to answer the following question: What is the effect of fraud management strategies on the performance of selected micro-finance institutions in Nairobi, Kenya?

### Research Objectives

- i. To assess the effect of anti-fraud policies on performance of selected micro finance institutions in Kenya
- ii. To examine the effect of internal controls on performance of selected micro finance institutions in Kenya
- iii. To evaluate the effect of fraud detection on performance of selected micro finance institutions in Kenya
- iv. To analyze the effect of corporate governance on fraud deterrence in selected micro finance institutions in Kenya.

## Literature Review

### Theoretical Framework

#### Fraud Triangle Theory

The classical theory of fraud triangle was conceptualized in 1971 by Donald Cressey and is the most common theory of fraud. This theory is made of a triangle of different fraud elements, which include perceived pressures, perceived opportunities and rationalizations. According to Cressey every fraudster is confronted by perceived pressure either personal or work related. These pressures then inspire the person to commit fraud in order to meet the expectations of the pressure. The fraudster then believes that he/she can commit fraud without being caught. The opportunity to commit fraud presents itself due to weak internal controls and inadequate punishment if the fraudster is found. According to Cressey, another reason of fraud is the knack of the fraudster to find a way to rationalization their actions as acceptable. According to Cressey, rationalization is the way individuals think about their performance, work and contribution in the workplace. They thus attach a value that they should derive from the MFIs for being to deliver something of value or being productive (Lou & Wang, 2009). This theory prepositions that fraud is perpetrated by people who are working for the financial institution and who are able to identify the opportunity to commit fraud and as a result, take advantage of it.

#### Fraud Diamond theory

This theory was put forth by Lou and Wang (2009). It states that for fraud to occur, four aspects should be present: opportunity, incentive, a person's ability, and rationalization. This theory posits that a person's personal traits and abilities play a significant role on whether or not fraud could happen, even when the other elements: opportunity, rationalization and pressure are present. This theory explains that an incentive to commit fraud in a financial institution can present itself when there are weak internal controls. Nevertheless, without the right individual with the right abilities to identify an opportunity to commit fraud and to be able to fully exploit it, fraud can never occur. In addition to this, this theory has been supported by various scholars (Hansen, 2009; Crawford & Weirich, 2011 & Hogan et al, 2008) who found that in financial institutions, most frauds are committed by middle level management that is composed of individuals who have experience on the job and who are smart enough to identify loopholes and take advantage of them. The fraud diamond theory explains the traits of people with abilities to commit fraud as: (i) the person must be smart to understand and exploit the internal control weaknesses; (ii) the individual's position in the financial institution can fuel the ability to exploit or create the opportunity to commit fraud; (iii) the person has the ability to coerce other parties to conceal or commit fraud, thus a person with a very persuasive personality; (iv) the person has great confidence and a strong ego; (v) the individual is able to deal well with stress; and (vi) the individual can lie consistently and effectively.

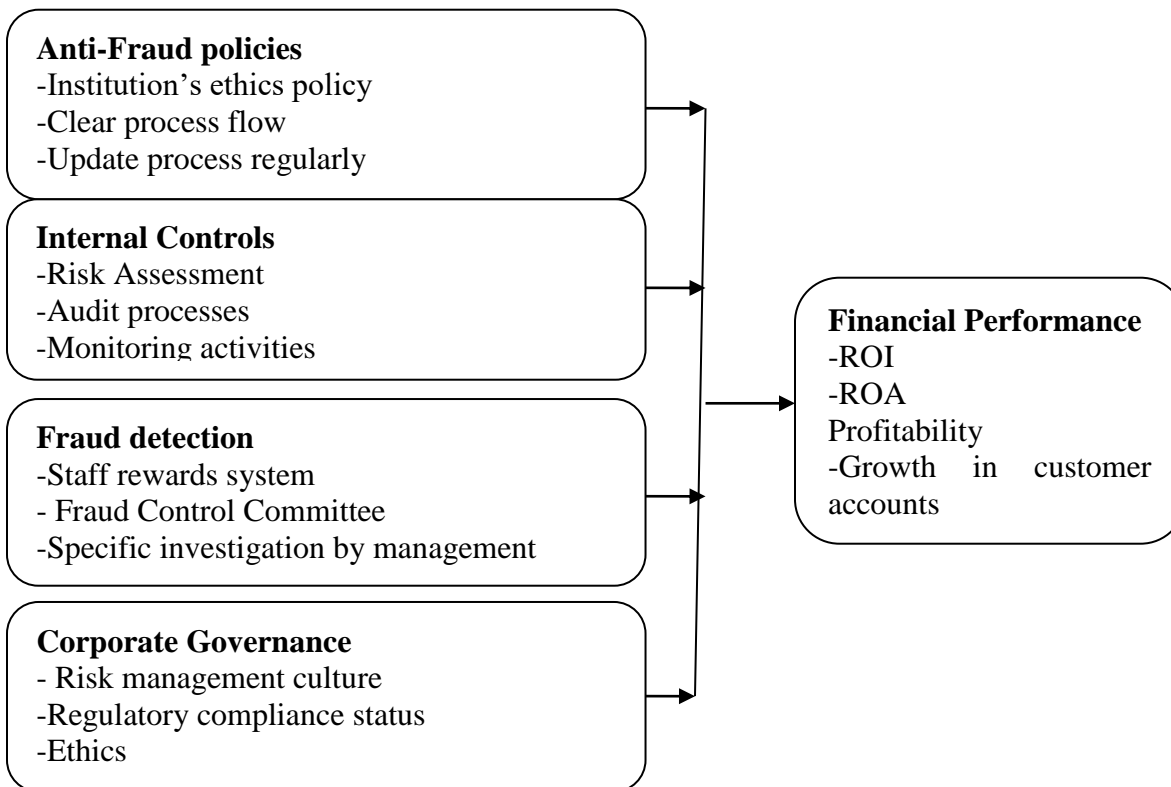
### Occupational Fraud Theories

According to Wells (2011), white collar crime is defined as criminal acts of financial institutions and administrators in corporate capacity. This theory indicates that crime is learned from fellow group members; second, Donald R. Cressey (Sutherland's student) undertook a separate research into causes of fraud in the 1940s in the US. From interviewing 200 incarcerated embezzlers, he developed what is now called fraud triangle made of a perceived non-sharable financial need or pressure, an opportunity to commit fraud, and a rationalization mechanism to permit it; third, Steve Albrecht: surveyed 212 actual frauds committed in the early 1980s. He developed fraud-scale theory made up of three characteristics: a) situational pressures (financial oriented), b) perceived opportunities (caused by poor controls), and c) personal integrity (individual ethics); fourth, Reuvid (2010) studied 10,000 cases of American employees, concluding that fraud is caused by a lack of job inspiration and that the actual cost of dissatisfaction is greatly understated. Clark also portends that the higher the position held in a MFIs the bigger the level of fraud.

### **Agency Theory**

Agency economic theory and institutional agency theory were originated by Stephen Ross and Barry Mitnick respectively. Mitnick concludes that institutions revolve around the relation employer-employee, whereas Ross believed that this relation revolves around job incentives to the employees. In a thesis defended at the University of Pennsylvania in an economic meeting in December 1972, Ross argued that the agency problem and incentives are identified as macroeconomic problems besides being microeconomic ones. This paper launched the idea of agency theory. Mitnick, a doctoral student in political science at the University, presented a similar dissertation on agency in 1973. He believed that institutions and social mechanisms guide the agent as well as principal relationship or preferences (Visa, 2011). Owners of firms contract agents to manage their firms on their behalf, thus becoming principals. The agents accept this responsibility with the aim of maximizing their personal utility as well as the owners' wealth. When agency utility and shareholders' wealth converge, the agency problem is considered to be

## Conceptual Framework



### Independent Variables

### Dependent variables

**Figure 1: Conceptual Framework**

### Research Methodology

The research adopted a descriptive research design aimed at investigating effect of fraud management strategies on the performance of selected micro-finance institutions in Nairobi, Kenya. A descriptive design is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman and Bell, 2015). The target population for this research was senior and middle level management staff of the 55 MFIs registered with the Association of Microfinance Institutions of Kenya (AMFI) by December 2015. The respondents were drawn from the following departments: finance, marketing, operations, human resources, risk and compliance and ICT since all their functions are realized. A sample population of 197 was arrived at by calculating the target population of 406 with a 95% confidence level and an error of 0.05 using the below formula taken from Kothari (2007). The research selected the respondents using stratified proportionate random sampling technique.

Stratified random sampling is unbiased sampling method of grouping heterogeneous population into homogenous subsets then making a selection within the individual subset to ensure representativeness. Primary data was obtained using self-administered questionnaires. The questionnaire was made up of both open ended and closed ended questions covering issues associated to Microfinance performance. Data was analyzed using Statistical Package for Social Sciences (SPSS Version 22.0). All the questionnaires received were referenced and items in the questionnaire were coded to facilitate data entry. After data cleaning which entails checking for errors in entry, descriptive statistics such as frequencies, percentages, mean score and standard deviation was estimated for all the quantitative variables and information presented in form of tables and graphs. Multiple regression analysis was used to establish the relations between the independent and dependent variables. Multiple regression attempts to determine whether a group of variables together predict a given dependent variable (Babbie, 2010). Since there were four independent variables in this research the multiple regression model generally assumed the following equation;  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$  Where:-Y= performance of selected micro-finance institutions.

$\beta_0$ =constant,  $X_1$ = Anti-Fraud Policies,  $X_2$ = Fraud Detection,  $X_3$ = Internal Controls ,  $X_4$ = Corporate Governance ,  $\varepsilon$ =Error Term

## Results

### Demographic Information of Respondents

#### Gender of the Respondents

The researcher sought to establish gender distributions of the respondents. The findings were indicated on table 1.

**Table 1: Gender of the Respondents**

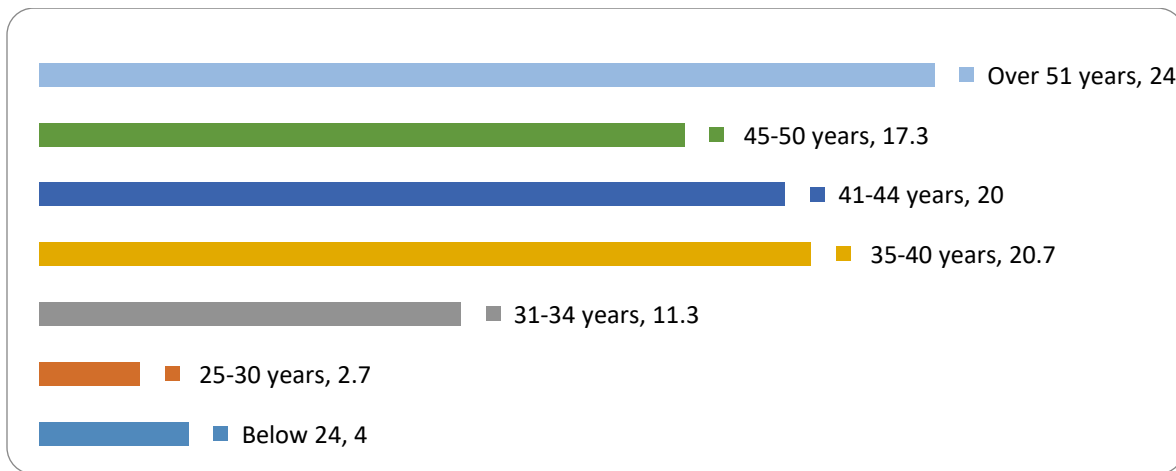
	Frequency	Percent
Male	99	66.0
Female	51	34.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

The findings showed that male gender were 66% while female gender were 34%. This finding implies that male gender are more in management position in Microfinance institutions in Kenya than female gender.

### Age brackets of the respondents

The study sought to establish the age of the respondents. The results are indicated in figure 2.

**Figure 2: Age brackets of the respondents**

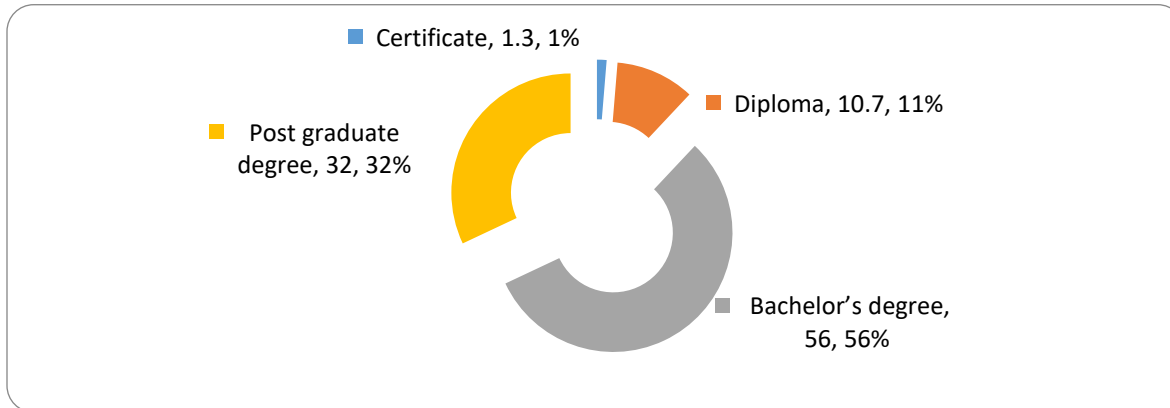


The findings showed that 24% of the respondents were aged above 51 years, 20.7% were aged between 35 and 40 years, 20% indicate between 41 and 44 years, 17.3% noted between 45 and 50 years, 11.3% of the respondents aged between 31 and 34 years, 2.7% indicated 25 and 30 years whereas 4% of the respondents were aged below 24 years. The finding implies that majority of respondents are aged above 51 years.

### Highest Academic Qualification

The respondents were further requested to indicate their highest level of education. The results are as shown in the figure 3.





**Figure 3: Highest academic qualifications**

From the findings 56% of the respondents indicated that have Bachelor's degree, 32% indicated Post graduate degree, and 10.7% indicated that they have a diploma as their highest academic qualification whereas 1.3% indicated the certificate. This finding implies that respondents were literate enough to interpret the topic of the study.

### Effect of Fraud Management Strategies on the Performance

#### Type of fraud

The respondents were inquired to note any type of fraud they know.

**Table 2: Type of fraud**

	Frequency	Percent
Forgeries	34	22.7
Embezzlement of funds	42	28.0
False identity	14	9.3
Fake payment	20	13.3
Unofficial borrowing	24	16.0
Computer fraud	16	10.7
<b>Total</b>	<b>150</b>	<b>100.0</b>

From the findings 28% indicated embezzlement of funds, 22.7% noted forgeries, 16% of the respondents indicated unofficial borrowing, 13.3% were for fake payment, and 10.7% indicated computer fraud whereas 9.3% noted false identity. The findings deduce that embezzlement of fund is the leading fraud in Microfinance Institutions. The findings are supported by various scholars (Hansen, 2009; Crawford & Weirich, 2011 &

Hogan et al, 2008) who found that in financial institutions, most frauds are committed by middle level management that is composed of individuals who have experience on the job and who are smart enough to identify loopholes and take advantage of them.

### Causes of Fraud

The researcher furthermore, sought to understand causes of fraud in MFIs. The results were as in table 3

**Table 3: Causes of Fraud in MFIs**

	Frequency	Percent
Lack of controls within the different processes	34	22.7
Staff frustrations	38	25.3
Lack of corporate governance or management controls	54	36.0
Insufficient procedures	24	16.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

From the findings, 36% indicated that lack of corporate governance or management controls is the major cause of fraud in MFIs, 25.3% of the respondents said staff frustration is the cause of the fraud in organization, 22.7% were for lack of controls within the different processes and 16% of the respondents indicated that the cause of the fraud in the organization is insufficient procedure. The finding implies that lack of corporate governance or management control of fraud in MFIs. This is in agreement with Bierstaker (2009) who asserts that corporate culture can be more significant than a person's cultural heritage in shaping attitudes about fraud and guiding ethical behavior.

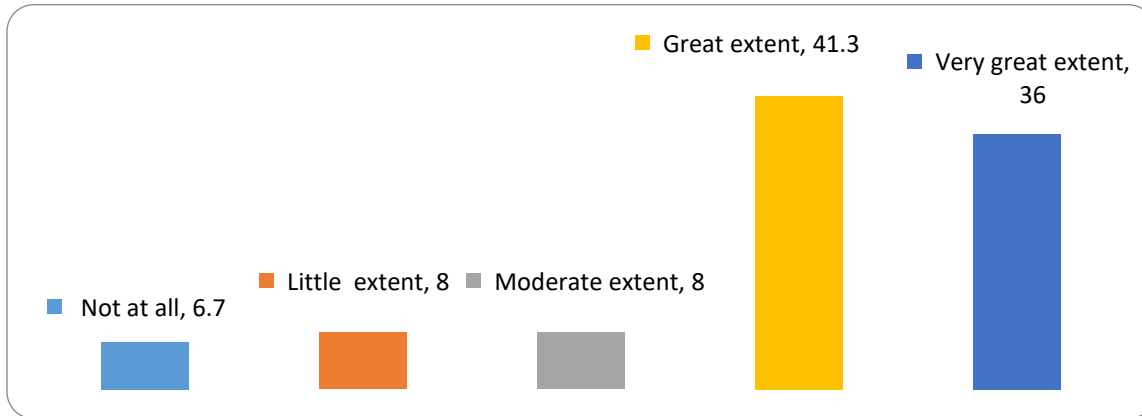
### Fraud Management Strategies and Performance of MFIs

#### Anti-fraud policies

What are some of the anti-fraud policies in the MFI industry in Kenya?

The respondents indicated that some of the anti-fraud policies in MFI industry in Kenya are; secondary level checks, audits, customer acceptance policy, transaction monitoring, Anti-money laundering, signature requirement, cross checks, bank reconcilements, segregation of duties and record keeping. The findings concur with Reuvid (2010) who indicated that some of the areas subject to compliance testing are standards for data processing, controller's procedures, procurement, data retention requirements of the MFIs and governmental agencies, security policies, personnel administration, planning, budgeting, payroll, and expense accounts. The respondents had to indicate the extent at which anti-fraud has influenced performance of MFIs. The responds are indicated in Figure 4.

**Figure 4 : Extent anti-fraud policies has influenced performance of MFIs**



As per the findings 41.3% of the respondents indicated that anti-fraud policies influences performance of MFIs to a great extent, 36 % indicated very great extent, 8% indicated that anti-corruption influences the MFIs performance to a moderate extent. Also 8% indicated little extent whereas only 6.7% indicated that anti- fraud strategies has no extent in influencing performance of MFIs. This finding implies that anti-fraud strategy affects the performance of microfinance to a great extent. The findings are according to Hogan et al (2008) who state that operational governance in the form of clear procedures and policies reduce cases of fraud in MFIs. Every MFI should create and maintain a fraud policy for guiding employees

**Table 4: Aspects of anti-fraud policies**

	Mean	Std. Deviation
Institution’s ethics policy	4.2467	1.11690
Clear process flow	3.5533	1.14421
Update process regularly	3.5000	1.34489
Security policies	3.6733	1.12624
Standards for data processing	2.8333	1.29748
Data retention requirements	4.2867	.94362

The respondents indicated with mean of 4.2867 that Data retention requirements influences performance of the MFIs in Kenya to a great extent. Respondents further noted that institution’s ethics policy influences performance of MFIs to a great extent with mean of 4.2467. Respondents also indicated with a mean of 3.6733 that security policies influence MFIs performance to a great extent. Clear process flow and update process regularly was also indicated with a mean of 3.5533 and 3.5000 respectively that they influence performance of MFIs to a great extent. Findings also show standards for data processing influences performance of MFIs to a moderate extent with a mean of 2.833. The finding were in agreement with Crawford and Weirich (2011) that anti-fraud policy should be distinct and separate from an institution’s ethics policy or code of conduct, it should be communicated clearly and all employees should be given a written acknowledgment that they have thoroughly read and understood the policy. Furthermore, Hogan et al (2008) state that operational governance in

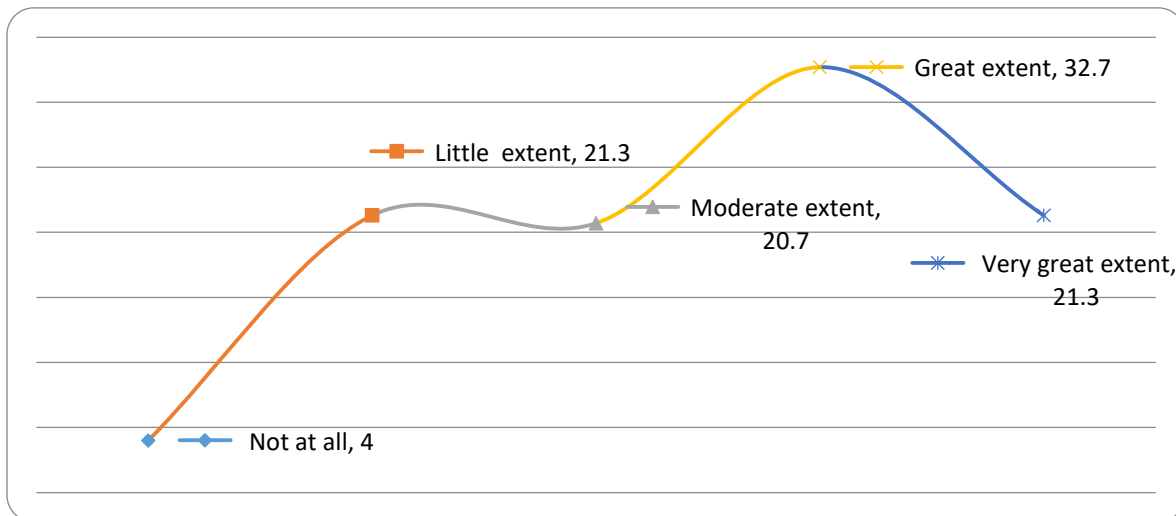
the form of clear procedures and policies reduce cases of fraud in MFIs. Every MFI should create and maintain a fraud policy for guiding employees.

The research was also interested in knowing in which ways the aspects of anti-fraud policies affects financial performance of the MFIs. Respondents indicated that aspects of anti- fraud policies affects financial performance of the MFIs in the following ways: reduced loss through clear defined fraud policies, affects rules governing MFIs formation and operations, leads to formation of standardized operating system which guides in job execution, the policies ensure compliance with existing regulatory requirement. Bierstaker (2009) deduce that collaboration between institutions in the fight against fraud is important as it would greatly help the financial sector as a whole.

### Internal control

The study sought to know the extent at which internal control influences performance of MFIs. The responds are indicated in Figure 5.

**Figure 5: Extent internal control affects performance of MFIs**



As per the findings 32.7% of the respondents indicated that internal control influences performance of MFIs to a great extent, 21.3 % indicated very great extent, 21.3% also indicated that internal control influences the MFIs performance to a little extent, 20.7% indicated moderate extent, whereas only 4% indicated that internal control strategies has no effect on performance of MFIs. The findings are in agreement with Cain (2009) who indicated that internal controls are processes designed to provide reasonable assurance that management achieves efficiency and effectiveness of operations, compliance with applicable regulations and laws, and reliability of financial reporting.

**Table 5: Aspects of internal control**

	Mean	Std. Deviation
Risk Assessment	3.5000	1.34489
Audit processes	4.2400	1.14505
Peer review process	3.3067	1.22033
Monitoring activities	2.8400	1.49307

From table above, respondents indicated with mean of 4.2400 that audit process influences performance of the MFIs in Kenya to a great extent. Respondents further noted that risk assessment influences performance of MFIs to a great extent with a mean of 3.5000. Respondents also indicated with a mean of 3.3067 that peer review process influence MFIs performance to a moderate extent. Findings also show monitoring activities influences performance of MFIs to a moderate extent with a mean of 2.8400. Johnson and Scholes (2008) suggest that a system of internal controls prevents fraud and errors through monitoring and enhancing financial reporting and financial institutional processes and ensuring compliance with pertinent regulations and laws. Reasonable assurance is provided when cost-effective actions are taken to restrict deviations like illegal or improper acts to a tolerable level.

#### **How do the above internal controls affect the financial performance of your MFIs?**

Respondents indicated that the above aspects of internal controls affect financial performance of their institutions in the following ways; risk assessment enables the institution to identify, assess, monitor, manage and mitigate the risk associated. Herdman (2012) stated that an effective internal audit function is crucial to the success of MFIs in stemming fraud and abuse, and in the preparation of accurate financial statements. According to Onoh (2009) the objectivity, skills, and knowledge of competent internal auditors can significantly add value to a financial institution's internal control, risk management, and governance processes. Similarly an effective internal audit activity can provide assurance to other stakeholders such as regulators, employees, providers of finance, and shareholders.

#### **Fraud Detection**

##### **What are the main Fraud Detection Strategies adopted by your MFIs?**

Respondents noted that the main fraud detection strategies adopted in their organizations are: risk management officers, production of passport pictures and original ID, data processing, implementation of internal control, employee notification, staff supervision, clients transaction monitoring and 2<sup>nd</sup> level checks. The findings are in accordance to Dion (2008) who asserted that fraud deterrence involves supervision of staff, good division of responsibilities, monitoring work performance, and implementing measures to ensure that even when fraudsters are able to access systems, there is proper control. The research also sought to know the extent at which fraud detection influences performance of MFIs.

**Table 6: Extent fraud detection influences performance of MFIs.**

	Frequency	Percent
Not at all	4	2.7
Little extent	18	12.0
Moderate extent	33	22.0
Great extent	20	13.3
Very great extent	75	50.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

The findings showed that 50% of the respondents indicated that fraud detection influences performance of MFIs to a very great extent, 22 % indicated moderate extent, 13.3% indicated that fraud detection influences the MFIs performance to a great extent, 12% indicated little extent whereas 2.7% indicated that fraud detection strategies has no effect on performance of MFIs. The finding implies that fraud detection affects the performance of microfinance institution in Kenya to a very great extent.

The five-step approach suggested by Hansen (2009) for fraud detection in an audit is knowing fraud exposure in specific terms; knowing exposure specific symptoms of fraud; being alert for fraud symptoms; incorporating into routine audit program steps that are likely to reveal fraud symptoms; and following through on all observed symptoms.

**Table 7: Aspects of fraud detection**

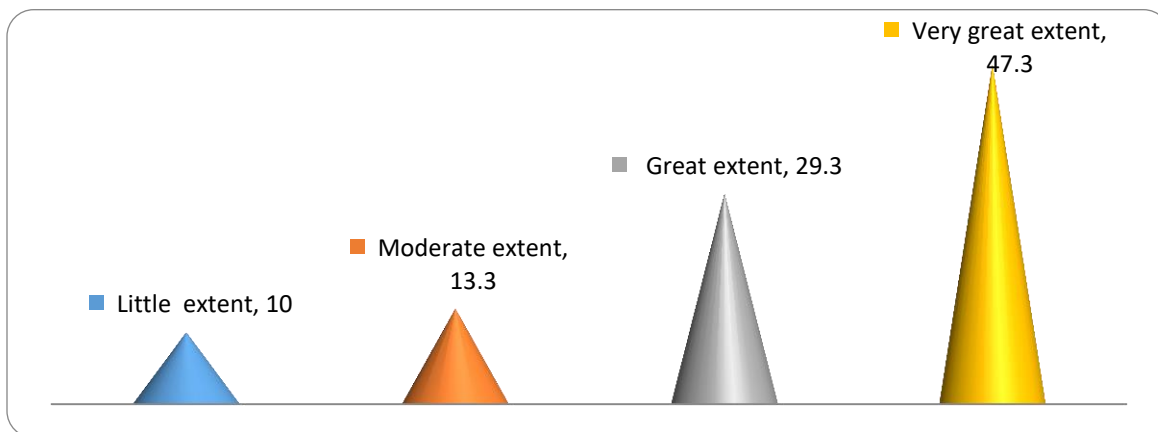
	Mean	Std. Deviation
Staff supervision	3.8733	.87697
Monitoring work performance	3.5000	1.34489
Internal audit review	4.1600	.85984
Specific investigation by management	3.3333	1.11528
Employee notification	4.1667	.95127
Accidental discovery	4.1800	.92010

The respondents indicated with mean of 4.1800 that accidental recovery influences performance of the MFIs in Kenya to a great extent. Respondents further noted that employee notification influences performance of MFIs to a great extent with mean of 4.1667. Respondents also indicated with a mean of 4.1600 that internal audit influence MFIs performance to a great extent. Staff supervision as well as monitoring performance was indicated with means of 3.8733 and 3.5000 respectively to have a great influence on performance of microfinance institutions in Kenya. Findings also noted that Specific investigation by management influences performance of MFIs to a moderate extent with a mean of 3.333. According to Miller (2006) fraud detection is an examination of the facts to identify the indicators of fraud sufficient to warrant recommending an investigation. Detection is characterized by actions and activities intended to identify and locate fraud prior to, during, and subsequent to the completion of the fraudulent activity.

### Corporate Governance

The respondents were again requested to indicate the extent at which corporate governance influences performance of MFIs. The results of the findings were indicated in figure 6.

**Figure 6: Extent corporate governance affects performance of MFIs**



As per the findings 47.3% of the respondents indicated that corporate governance influences performance of MFIs to a very great extent, 29.3 % indicated great extent, 13.3% indicated that corporate governance influences the MFIs performance to a moderate extent.

Also, 10.0% indicated that corporate governance strategies affects performance of MFIs to a little extent. The finding implies that corporate governance influences performance of MFIs to a very great extent. Bierstaker (2009) asserts that corporate culture can be more significant than a person's cultural heritage in shaping attitudes about fraud and guiding ethical behavior

**Table 8: Aspects of corporate governance**

	Mean	Std. Deviation
Strong risk management culture	4.2000	.90487
Reporting of audit activities, statuses, and results	3.5133	1.26776
Monitor regulatory compliance status	4.1000	1.13368
Rapid analysis of root cause issues	3.3933	1.18660
Mainstreaming (adoption of ethical culture and structure)	3.7400	1.17827

The results of the findings shows that respondents indicated with mean of 4.2867 that strong risk management culture influences performance of the MFIs in Kenya to a great extent. Respondents further noted that Monitor regulatory compliance status influences performance of MFIs to a great extent with mean of 4.1000. Respondents also indicated with a mean of 3.7400 that mainstreaming (adoption of ethical culture and structure) influence MFIs performance to a great extent.

Reporting of audit activities, statuses, and results was also indicated with a mean of 3.5133 that it affects performance of MFIs to a great extent. Findings finally indicated with a mean of 3.3933 that rapid analysis of root cause issues affects performance of MFIs to a moderate extent. Bierstaker (2009) asserts that corporate culture can be more significant than a person's cultural heritage in shaping attitudes about fraud and guiding ethical behavior. However Wright (2007) cautions that there should be an ethical fit between an institution's ethical strategy and its existing structures, systems, procedures and policies, and culture.

#### **How do the above Corporate Governance facets affect the financial performance of your MFIs?**

According to the respondents corporate governance helps in defining the management system and ensuring that the system is aligned with the overall institution activities, harmonised processes and standard operating procedures have resulted in staff being fully aware of how to do things thus ensuring that they are well versed with what is expected of them how to get it done, leads to minimal cases of fraud, long term sustainability in the industry, increases transparency and accountability of funds utilized, they help to measure performance and evaluation market values. Rock (2014) notes that good corporate governance has been identified as a key bottleneck to strengthen the financial performance of MFIs and increase outreach of microfinance.



### Financial institutional Performance

The respondents were requested to show performance of aspects in their organization

**Table 9: Performance of micro finance institutions**

Performance measures	2011	2012	2013	2014	2015	mean
ROI	0.08	0.07	0.15	0.09	0.18	0.114
ROA	1.10	1.30	0.90	0.80	0.90	1.06
Profitability	118.25	121.8	125.8	141.1	147.8	130.95
NCA	1023	1672	1786	1888	2000	1674

Table 9 presents the findings on the performance of microfinance institutions in Kenya for the years 2011-2015. Return on investment (ROI) had a mean of 0.114 representing 11.4%. The records also shows that return on asset(ROA) of MFIs for the last five years had an average of 1.06. Furthermore the record by Central bank of Kenya indicated that the average mean of the profitability of MFIs in Kenya period of about five years was 130.95 billion. Finally, the record were clear that the mean of number of customers for microfinance institutions for last five years is 1,674,100

### Pearson Correlation Analysis

Pearson correlation coefficient was used to determine the strength and the direction of the relationship between the dependent variable and the independent variable

**Table 10: Pearson Correlation Analysis**

		Performance of MFIs	Anti-fraud policies	Fraud detection	Internal control	Corporate governance
Performance of MFIs	Pearson Correlation	1				
Anti-fraud policies	Pearson Correlation	.619	1			
Fraud detection	Pearson Correlation	.525	.711	1		
Internal control	Pearson Correlation	.773	.542	.440	1	
Corporate governance	Pearson Correlation	.843	.565	.771	.715	1
	Sig. (2-tailed)	.029	.043	.073	.030	

From the table anti-fraud policies has a positive correlation of 0.619 with performance of MFIs and is significant at 0.070. Fraud detection correlates with MFIs performance with 0.525 and significant at 0.054. Internal control also strongly correlates positively with MFIs performance with 0.773 and significant at 0.023. Corporate governance strategies had a positive correlation with performance of MFIs with 0.843 and significant at 0.029.

**Regression Analysis**

Regression analysis shows how independent variable is influenced with independent variable.

**Table 11: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.884	0.781	0.775	1.782

Table 11 is a model fit which establish how fit the model equation fits the data. The adjusted R<sup>2</sup> was used to establish the predictive power of the study model and it was found to be 0.775 implying that 77.5% of performance of microfinance institution is affected by the following variables; anti-fraud policies, fraud detection strategies, internal control strategies and corporate governance strategies leaving 23.5% unexplained. Therefore, further studies should be done to establish the other factors (23.5%) that influence the performance of MFIs.

**Table 12: ANOVA results**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1675.45	4	418.863	129.246	.000
Residual	469.92	145	3.241		
Total	2145.37	149			

The probability value of 0.000 indicates that the regression relationship was significant in determining how anti-fraud policies, fraud detection strategies, internal control strategies and corporate governance strategies influence the performance of MFIs in Kenya. The F calculated at 5 percent level of significance was 129.246. Since F calculated is greater than the F critical (value = 2.4495), this shows that the overall model was significant.

**Table 13 Coefficients of Determination**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.786	0.155		5.071	.0000
Anti-fraud policies	0.623	0.176	0.587	2.126	.0011
Fraud detection	0.514	0.144	0.467	3.569	.0010
Internal control	0.765	0.239	0.684	3.201	.0029
Corporate governance	0.836	0.278	0.765	3.007	.0049

The established model for the study was:

$$Y = 0.786 + 0.623 X_1 + 0.514 X_2 + 0.765 X_3 + 0.836 X_4$$

The regression equation above has established that taking all factors into account (anti-fraud policies, fraud detection strategies, internal control strategies and corporate governance strategies) Constant at zero MFIs performance is 0.786. The findings presented also show that taking all other independent variables at zero, a unit increase in the anti-fraud policies would lead to a 0.623 increase in the score of MFIs performance and a unit increase in the scores of fraud detection strategy would lead to a 0.525 increase in the scores of MFIs performance. Further, the findings shows that a unit increases in the scores of internal control would lead to a 0.773 increase in the scores of performance of MFIs in Kenya. The study also found that a unit increase in the scores of corporate governance strategy would lead to a 0.843 increase in the scores of performance of Kenya microfinance institutions in Nairobi, Kenya. Overall, corporate governance had the greatest effect on the on the performance of microfinance institutions in Nairobi; followed by internal control, and then fraud detection

strategy had the least effect on performance of microfinance institutions in Nairobi. All the variables were significant ( $p < 0.05$ ).

## **Conclusions**

Based on the research findings the study concludes that anti-fraud strategy affects the performance of selected micro finance institution in Kenya. Furthermore, the study revealed that, data retention requirements influences performance of the MFIs in Kenya. Other aspects of anti-fraud that influence the performance of MFIs include; institution's ethics policy, security, clears process flow and update process. Study also deduces that standards for data processing influences performance of MFIs. The study also concludes that internal control influences performance of selected MFIs in Kenya .The study also establish that audit process influences performance of the MFIs in Kenya. The research again concludes that risk assessment influences performance of MFIs. The study established that peer review process influence MFIs performance. According to the finding monitoring activities influences performance of MFIs. Basing on the findings the study concludes that fraud detection influences performance of selected MFIs in Kenya. The study again established that accidental recovery influences performance of the MFIs in Kenya. Further the study found that the following aspects of fraud detection influence the performance of MFIs; employee notification, internal audit, staff supervision, monitoring performance and specific investigation by management. The final conclusion is that corporate governance influences performance of selected MFIs. The results of the findings reveal that strong risk management culture influences performance of the MFIs in Kenya. Other aspects of corporate governance that study found influences the performance of MFIs in Nairobi, Kenya are; monitor regulatory compliance status ,mainstreaming (adoption of ethical culture and structure) ,reporting of audit activities, statuses, and results and rapid analysis of root cause issues.

## **Recommendations**

Based on the research findings and conclusions the study recommends that management team of Micro finance institution in Kenya should adopt anti-fraud policies strategy in their organizations. The policies should aim at reducing the fraud in the organization and hence improving the performance of the organization. Specifically the study recommends that the following aspects of anti-fraud policies will have a great influence on the company performance if adopted: data retention requirements, institution's ethics policy, security, clears process flow, update process and standards for data processing. The study also recommends that managers of micro finance institution in Kenya should seriously consider internal control in their institutions. The managers of micro finance should do risk assessment in their institutions. The study also recommends that managers of MFIs should review their peer process time to time and again they should monitor activities. Basing on the findings the study recommends that managers of microfinance institution should come up with fraud detection measures which will aid in barring fraud activities in the organization. The study recommends that aspects such as employee notification, internal audit, staff supervision, monitoring performance and specific investigation by management has to implemented in the organization to boost fraud detection policies. The study also recommends that management staff of MFIs in Kenya should have strong risk management culture in the organization. Other aspects of corporate governance that micro finance organization should adopt are; monitor regulatory compliance status, mainstreaming (adoption of ethical culture and structure), reporting of audit activities, statuses, and results and rapid analysis of root cause issues.

## **Conflict of Interest**

No potential conflict of interest was reported by the authors.

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