



## Fraud risk management and financial performance of microfinance institutions in Kenya

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### ABSTRACT

*Fraud is a thorn in the flesh of many organizations in both local and global business ecosystems, more so in the financial sector because of the liquid nature of their services. To curb this menace, Financial Institutions including Microfinance institutions implemented fraud risk management practices. While larger financial institutions afford raft measures for curbing fraud, MFIs contend with less sophisticated practices in spite of them being the most susceptible to financial improprieties. Further, the determination of the overall effect of these practices on financial performance is critical in evaluating their success. The objective of this study therefore was to find out how fraud risk management practices affect the financial performance of Microfinance Institutions in Kenya. The study was anchored on the fraud management life cycle theory and focused on twelve deposit-taking Microfinance Institutions that were in operation in the Nairobi region of Kenya between 2016 to 2020. The study adopted a descriptive research design using cross-sectional data computed from the average financial results for five years 2016-2020. The study used purposive and stratified Random sampling methods to select a sample of 281 respondents from finance, ICT, operations, Audit, and Litigation managers and staff. The study used descriptive and inferential statistics to analyze the data. The results showed that fraud risk management positively and significantly affected financial performance by curbing incidents of fraud and concluded that to improve financial performance microfinance institutions should implement fraud risk management since they had a positive and significant effect on financial performance. The study recommended that firms should invest substantially in fraud risk management to reduce incidences of fraud and improve financial performance. Further, the management of Microfinance Institutions should continually evaluate and update their practices to keep abreast with the ever-changing fraud antics.*

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## Introduction

The fraud menace has been a thorn in the flesh of many organizations both in the local and global markets. The threat is worse in the financial sector because of the liquid nature of their products. The Central Bank of Kenya (CBK) Supervisory Report of 2020, showed that nine out of the thirteen registered Deposit-taking MFIs reported losses with a cumulative loss of Ksh.2.084 billion in 2020, with fraud being cited as one of the contributors to these losses. The Association of Certified Fraud Examiners (ACFE) report of 2016 showed that MFIs lost between 5-8% of their annual revenue to financial improprieties. Ochieng (2018), asserts that fraud is one of the major contributors to losses in the financial sector in Kenya. A similar observation was made by Ngui (2018) who identified fraud as one of the major causes of concern for many sectors of the country.

Fraud is however not a Kenya problem alone, but rather a global one as was witnessed by world scandals such as Enron that led to the collapse of the American energy, commodity, and service industry firm. The PwC, Global Economic Crime and Fraud Survey of 2022 showed that 51% of organizations reported that they had been victims of fraud in the past two years. This is the highest number

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ever. Aviva Fraud Reports in 2021 noted that the banking industry is disproportionately affected by fraud with a year-on-year increase of 1,318%. Which is an alarming rate. The Global Fraud and Risk Report of 2021/22 indicated that the global value of bribery was estimated at 1.75 trillion dollars a year, or slightly over 1% of the global GDP. Similarly, the UN reports on fraud showed that about 10-25% of the public contracts' value is lost to corruption. The end result of Fraud is loss of revenue to the shareholders and employees, the government in the form of taxes, and for financial institutions, customer deposits thus calling for the interventions of fraud risk management to cope with the effects of fraud (Olongo, 2013).

Fraud risk management practices have been cited as some of the tools used to curb fraud in many organizations and governments. Wangu (2021), asserts that fraud risk management techniques are invaluable tools in preventing, detecting, and responding to fraud. The KPMG in the 2010 report on fraud Risks explained Fraud Risk Management as the actions aimed at curbing, detecting, or responding to actual or potential cases of corporate fraud. Fraud Risk Management practices are thus approaches used for preventing financial crimes, assessing the risk of fraud, and developing concrete responses to mitigate the risk and eliminate opportunities for fraud. They also include the reinforcement of the control systems; installation of machines or mercury lights for detecting forged notes; strict disciplinary actions to deter staff; and the installation of physical and electronic surveillance systems (Gbegi and Odebisi (2014). Thus, fraud Risk Management Techniques are measures put in place by management to prevent, detect, and deter financial crimes, such as Physical and electronic Surveillance such as CCTV cameras, Physical monitoring of the managers and monitoring of computer log-ins, Finance procedures, and awareness training (Bassey (2018).

This study sought to look at three aspects of fraud risk management techniques which included: The creation and maintenance of mechanisms for the identification and documenting of fraud risk; installation of surveillance and precautionary measures to detect and deter fraud risks, as well as the organization's responses to fraud risk. As Gbegi and Odebisi (2014) assert, Microfinance institutions like all other financial institutions across the world have installed the latest fraud risk management systems because of their involvement with liquid cash. In spite of the latest technologies in managing fraud, these institutions have continued to experience losses as a result of fraud. This study aimed to look at the effect of fraud risk management practices on the financial performance of microfinance institutions in the Nairobi region of Kenya.

## Literature Review

### Fraud management lifecycle theory

Wesley (2004), asserts that to effectively manage the Fraud Management Lifecycle, one must start by understanding the eight stages of the lifecycle which include: Deterrence, Prevention, Detection, Mitigation, Analysis, Policy, Investigation, and Prosecution. Further, he opined that Effective fraud management requires a balance in the competing and complementary actions within the Fraud Management Lifecycle. The links between the different stages or nodes in the fraud management network form the foundations of the fraud management lifecycle theory. Wangu (2020), asserts that the achievements and failures in fraud management are the climax of the final step of the lifecycle which is prosecution. Failures occur because the fraud was successful, while successes occur because the fraud was uncovered, the suspect was identified, apprehended and charges brought against him/her/them. The prosecution stage comprises the recovery of assets, criminal reparation, and conviction with its corresponding disruptive value (Wilhelm, 2004).

This theory is vital since Githecha (2013) showed the steps of managing the risk of fraud in a sequential manner. This theory exhibits what institutional processes should be implemented to successfully manage fraud. The theory however fails to explain the causes of fraud in MFIs. The theory however presumes consistent cultural, regulatory, and technical applications in fraud control. This theory makes no effort to explain fraud management measures in situations where such systems and procedures fail it however points at clear guidelines that should be followed by organizations to manage the threat of fraud.

Wangu (2021), carried out a study on the effect of Fraud risk management techniques on the financial performance of Savings and Credit Cooperative Organizations in Kenya. the study focused on three aspects of preventive detective and responsive. The study used a descriptive research design and a questionnaire to collect data from 545 SACCOS and used both descriptive and inferential statistics to analyze the data. the study findings showed that the three variables explained 77.6% of financial performance. this showed that these firms relied heavily on fraud risk management for their financial performance. The study findings further showed that fraud risk management techniques positively influenced financial performance by improving its competitive advantage.

Jones (2019), carried out a study on Fraud Risk Management and Corporate performance of Deposit Money Banks in Nigeria. The study used secondary data where data were extracted from annual reports and accounts of fifteen (15) deposit money banks quoted on the Nigerian stock exchange, for the period 2012-2018. The data for fraud risk management was obtained from the International Fraud Report/checklist (IFRC). Financial performance was measured using return on asset and return on equity. In testing the research hypothesis, the study adopted both descriptive statistics and simple regression techniques. The findings revealed that IFRC has a significant effect on return on assets while IFRC revealed an insignificant effect on the return on equity of deposit money banks in Nigeria. The study recommended that the regulator and supervisor of DMBs should tighten their grip on regulating and supervising these banks to reduce incidences of fraud.

Hussaini, Bakar, & Yusuf, (2019). carried out a study on the effect of fraud risk management and the financial performance of banks in Nigeria. The focus was on the process of screening, editing, and preparation of financial reports. The study used a survey research design and self-administered questionnaires were used to collect data. The target population was the senior managers in the risk management departments, the internal control department, and the branch managers. A total of 417 respondents were involved in the study. The instrument was arranged using a 5-point Likert- scale. The data was analyzed using both descriptive and inferential statistics. The findings showed that fraud risk management affected the financial performance of commercial banks in Nigeria. They recommended that the banks should put in place effective fraud risk management mechanisms to improve their performance.

Ngui (2018) did a study on the effect of financial fraud risk management practices on the profitability of state corporations in Kenya. The techniques used for fraud prevention included staff rotation, employee and third-party screening, training, internal audit, and security checks. The study used an exploratory research design with census sampling being used to select one senior personnel from the department involved in fraud management. The target population was the 27 commercial state corporations that were in operation then. The study was anchored on the following theories; Classical fraud theory; Fraud management lifecycle theory and deterrence theory. A sample of 27 respondents was selected from the state corporations and used for the study. The questionnaire was used to collect primary data and an inferential statistical tool of regression was the model adopted for data analysis. The findings showed that preventive financial fraud risk management strategies were effective in curbing fraud and positively influenced the profitability of commercial state corporations. The study concludes that the major frauds in this organization are: the concealment of material statements, demand draft fraud, rogue traders, forgery and fraudulent documents, increasing vendor invoices, and inconsistent overtime hours. The study concludes that fraud prevention techniques of; internal controls, training; staff rotation, employee and third-party screening, training, internal, Audit, and security checks were positively affecting the financial performance of the state corporations. The recommendations are, the organizations should make sure that employees in the state corporations are informed about the penalties of engaging in fraudulent activities and employees should be invigorated to report fraud.

While most studies have used the general indicators of fraud risk practices of preventive, detective, and responsive, few studies have considered specific tools for identifying, recording, and responding to fraud which were used in this study. Further, Studies by Jones have yielded contradicting results. There is therefore a need to look at the effect of fraud risk management on financial performance. The hypothesis of the study was, therefore:

**Ho:** *Fraud Risk Management has no statistically significant effect on the financial performance of deposit-taking microfinance institutions in Kenya.*

## Research and Methodology

The study adopts a descriptive research design. The study involved all Deposit-taking Microfinance Institutions in the Nairobi region of Kenya. The target population was 387 from management and operations, Finance and credit control, Internal and Risk, External Audit, ICT, and Litigation departments of the Twelve Microfinance Institutions operating in Kenya between 2016 and 2020. The study used a structured self-administered questionnaire to collect primary data and a data capturing sheet to collect secondary data from the Published financial statements of all the Deposit-taking Microfinance Institutions for 2016 to 2020. The researcher used purposive and stratified random sampling techniques to select a sample size of 281. The researcher used pretesting and expert advice to test the validity of the data collection instruments. To test for external reliability, the researcher used a pilot test.

### Independent Variable

- Fraud Risk Management**
- Identifying of Risks
  - Documentations of Risks
  - Responses to Risks



### Dependent Variable

- Financial Performance**
- ROA

**Figure 1:** Conceptual Framework; *Source: Author 2023*

Figure 1 above shows how the study linked the independent variable (the proxies of fraud Risk Management) and the independent variable financial performance which was measured by return on assets (ROA).

This relationship is informed by the literature review above and the summary of the literature review as shown in Table 1 below.

**Table 1:** Summary of Literature Review

Author (Date)	Subject	Variables	Methods	Findings
Wangu M.C.(2021),	Fraud risk management techniques and financial performance of SACCOs in Kenya	Preventive Detective and Responsive	Regression Model	FRMT positively influenced financial performance
Jones A.S. (2019)	Fraud Risk Management and Performance in Deposit Money Banks in Nigeria	International Fraud Report/checklist (IFRC)	Regression Model	IFRC has a significant effect on ROA IFRC had an insignificant ROE
Hussaini, U., Bakar, A. A., & Yusuf, M. B. O (2019).	fraud risk management and financial performance in banks in Nigeria	Screening, Editing, and Preparation of Financial Reports	Regression	FRM had an effect on financial performance
Ngui (2018)	Fraud risk management practices and profitability in state corporations in Kenya	Fraud Prevention	Regression	FRM positively influenced the profitability

Source: Author 2023

Table 1 above shows that the majority of the studies on this topic found a positive relationship between fraud risk management and financial performance. few others found contradicting results such as Jones 2019 who found that fraud risk management had a negative effect on the return on equity thus warranting a study to resolve the conflicting results. Further, the proxies of fraud risk management as used in the reviewed studies differ from those that were used in this study thus creating a conceptual gap that the study attempted to fill.

**Table 2:** Research Methodology Matrix

Objective	Hypothesis	Method of Analysis	Interpretation
To evaluate the effect of Fraud Risk management on the financial performance of Deposit-taking MFIs in Kenya	<b>H<sub>0</sub></b> :Fraud risk management has no statistically significant effect on the financial performance of MFIs in Kenya.	Karl Pearson Correlation, p-value t-test, F-test, and Regression model	Accept if: P<0.05 or F value >F-critical t-value > 1.96

Source: Author 2023

Table 2 summarizes the methodology for measuring the variables in the study. The objective was to measure the direct relationship between the dependent and independent variables. The researcher would fail to reject the null hypothesis if the p-value is less than 0.05 alternatively the use of the F-value can also give direction on the verdict on the variables.

## Findings and Discussion

### Model Summary on Fraud Risk Management and Financial Performance

The model summary below shows the values of R, R<sup>2</sup>, and the adjusted R<sup>2</sup>, as well as the standard error of the estimates, which were used to determine how well a regression model, fitted the data. the summary showed the extent of variation in the outcome variable to the predictor variables in the model. The results are shown in Table 3 below.

**Table 3:** Model Summary for Fraud Risk Management & Financial Performance

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	Change Statistics				Sig. Change	F
					R Square Change	F Change	df1	df2		
1	.408 <sup>a</sup>	.166	.162	6.37067	.166	40.260	1	202	.000	

a. Predictors: (Constant), Composite Effect of Fraud Risk Management;

b. Dependent Variable: Financial Performance

Source: Author 2023

The results as shown in Table 3 above indicated that the value for  $R^2$  was 0.166 or 16.6%. this implied that 16.6% of the variations in financial performance as measured by Return on Assets in Kenya were explained by Fraud Risk Management. While 83.4% of the variations in ROA were explained by other factors.

### ANOVA on FRM and Financial Performance

The Analysis of Variance (ANOVA) was used to ascertain the fitness of the model in predicting the link between the dependent and independent variables. In this case, a link between fraud risk management and financial performance. the results of the analysis for the variables are presented in Table 4 below.

**Table 4:** ANOVA on Fraud Risk Management and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1633.970	1	1633.970	40.260	.000 <sup>b</sup>
	Residual	8198.261	202	40.585		
	Total	9832.231	203			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Composite effect of Fraud Risk Management

Source: Author 2023

Table 4 shows the computed F values and the p-value. The calculated value of  $F(1,202) = 40.26$ ;  $p\text{-value} = .000$ . Using the p-value to check the model's fitness, showed that the predictor variable (Fraud Risk Management) and the dependent variable (Financial Performance) were fit for analysis of the relationship between them since the p-value obtained  $.000 < 0.05$ .

The results were in agreement with the study by Hussaini, Bakar, and Yusuf, (2019), who concluded that fraud risk management has a positive relationship with the financial performance of commercial banks.

### Coefficients on Fraud Risk Management and Financial Performance

Based on the foregone results and discussion, the study conducted a regression coefficient to establish the mean change in financial performance for a unit variation in fraud risk management among deposit-taking microfinance institutions. The findings are presented in Table 5 below.

**Table 5:** Coefficients on Fraud Risk Management and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-42.382	6.055		-6.999	.000
	Composite Effect of Fraud Risk Management	10.292	1.622	.408	6.345	.000

a. Dependent Variable: Financial Performance

Source: Author 2023

Table 5 is used to test the hypothesis using the t-test, the t-value obtained of 6.345 at a 95% level of significance was higher than the critical t-value of 1.960 for the sample size used thus leading to the rejection of the null hypothesis.

**Ho;** Fraud risk management has no statistically significant effect on the financial performance of Deposit-taking Microfinance Institutions in Kenya, was rejected.

The study derived the following simple linear regression equation for fraud risk management on financial performance.

$$Y = -42.382 + 10.292X_1$$

The study findings agree with Wangu (2021), and Ngui (2018), who showed that there is a positive relationship between fraud risk management and financial performance. but differs with the findings by Jones (2018).

## Conclusions

The objective of the study was to determine the effect of fraud risk management on the financial performance of microfinance institutions in Kenya. The researcher concluded that fraud risk management had a weak positive relationship with the financial performance of Microfinance Institutions with an  $R^2$  of 0.166 (16.6%) and rejected the null hypothesis  $H_0$  which stated that

The study further concluded that Fraud risk management has no statistically significant effect on the financial performance of Deposit-taking Microfinance Institutions in Kenya on the grounds that the obtained of 6.345 was higher than the t-value of 1.960.

This study therefore contributed to the debate by asserting that fraud risk management practices positively contributed to financial performance which corroborated the findings by Hussaini, Bakar, and Yusuf, (2019). The study findings are however limited since

only one measure of financial performance (ROA) was used. Similar studies can be done using ROE, and Profitability. These may yield either reinforcing or conflicting findings in the current setup. Further, the study used Fraud management lifecycle theory in anchoring the study hypothesis, future studies can integrate the use of the Michael Faaultian theory of Panopticism to further explain this phenomenon.

Further, since cyber-attacks have emerged as some of the major fraud risks facing microfinance institutions, Future studies should focus on the analysis of the cyber security measures in curbing fraud and contributing to financial performance.

The study recommends that financial institutions, other organizations, and governments institutionalize fraud risk management practices such as tightening the recruitment process to hire individuals with high integrity, and constantly training them on how to prevent, detect, and respond to fraud.

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