

## The practicality of forensic auditing techniques to detect non-government organisations' financial statement fraud in South Africa using a proactive approach

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### ABSTRACT

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This article empirically investigated proactive financial statement fraud detection techniques 30 among nongovernment organisations in the eThekweni region, South Africa. The data for this thesis was gathered from 87 staff via the use of a mixed research method with knowledgeable individuals in the field of fraud risk management. SPSS used descriptive statistics analysis while all the interview questions were analysed using conventional thematic analysis via NVivo. Robustness analysis was entirely performed using AMOS for CFA was used to estimate statistical models. SEM simultaneously estimated the link between detective financial statement fraud practices. The study's results and findings of both the questionnaire and interviews reflected statistically significant agreement that NGOs should use proactive forensic auditing techniques in order to detect financial statement fraud among NGOs in the eThekweni region of South Africa.

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### Introduction

Financial statement fraud has become the highest one compared to other types such as asset misappropriation, bribery and corruption, employee theft and embezzlement (Shakouri et al., 2021). Various organisations have experienced massive financial statement frauds, and extremely costly financial statement frauds are not limited to profit-oriented and State-Owned entities alone (Andres-Alonso et al., 2016), in the sector of government agencies and private institutions there are also many cases (Hamdani et al. 2017). Financial statement fraud among entities remains problematic and there have been continued extremely concerns about auditors' abilities to detect fraud, with relatively few frauds uncovered by external auditors and of course, they do not conduct a set of forensic audit tests and respond to elevated fraud risks and this has placed forensic auditing topmost in the emergent areas in accounting (Kassem, 2016). Sumartono et al. (2020) have identified the required skills and competencies that forensic audit professionals must possess. NGOs in the USA, Europe, Asia, and Africa, and other parts of the world have been involved in similar situations, moreover, financial statement frauds are taking place in the eThekweni Region-South Africa (Snyder et al., 2017).

The researcher speculates that the traditional audit system fails to address the full potential of financial statement fraud capabilities that effectively conceal fraud schemes from external auditors (Dan et al., 2010). One of the likely critical reasons for this gap is that auditors appear to have difficulties in detecting and investigating fraud (Sikka, 2009). This difficulty may be due to three factors: (1) auditors' risk assessments fail to recognise conditions that warrant additional forensic audits tests, (2) auditors do not have sufficient training or knowledge to identify and investigate fraud risks and or (2) the limited scope of the rule-based audit (traditional audit). The literature review revealed that proactive forensic auditing skills and techniques have a significant impact on uncovering and reducing financial statement fraud in many countries such as Britain, Germany, Canada, and in the United States where it is in use but no research has been done in South Africa in NGOs sector. Forensic auditing proactively integrates accounting, criminology, computer forensics, litigation services and auditing investigative services into the investigation of a broad range of future oriented- entity's problems (Srivastava & Mock, 2005; Sumartono et al., 2020). Problems arise from the fact that forensic auditing service is still new to most of businesses, public institutions and even to the NGOs sector in South Africa. This leads to confusion among NGOs and some may even be unaware of its existence. Therefore, the critical role of forensic audit is ignored. This article focuses on the practicality of forensic auditing to improve the understanding of detecting NGOs' financial statement fraud in the eThekweni region- of South Africa. This article will

lead to the awareness and acceptance level of forensic auditing. Furthermore, the results from this research study would give an understanding and awareness of the role of forensic auditing. Ultimately, this research hopes to protect the interests of all NGOs' stakeholders as forensic auditors' engagements are usually geared towards finding where the money went, how it got it there and who was responsible.

Flowing from the above, the specific objective of this article is to investigate whether or not proactive forensic audit techniques can significantly detect financial statement fraud among NGOs in the eThekweni region. This article focuses on the role of proactive forensic auditing techniques in relation to financial statement fraud detection. Against this backdrop, this article is expected to answer the following question: How can proactive forensic audit techniques significantly detect financial statement fraud among NGOs in the eThekweni region?

## Literature Review

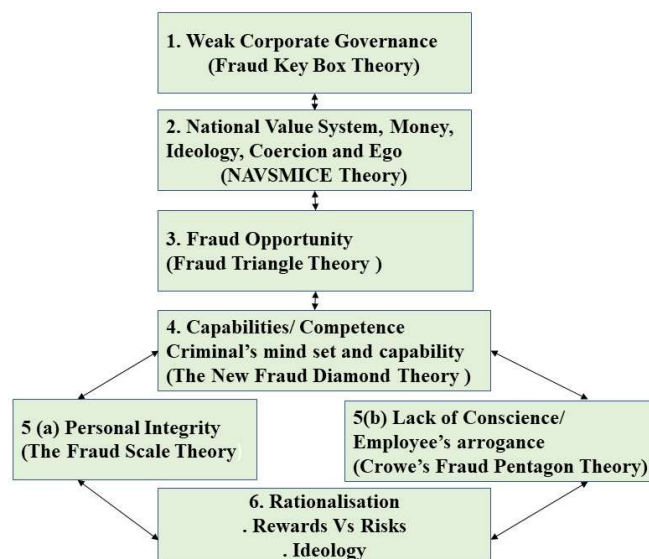
### Relationships Between the New Fraud Diamond Theory and Variables

The Fraud Diamond Theory offers valuable insights and a framework that can assist NGO leaders and practitioners to find sustainable solutions to reduce and/or prevent fraud. It can add value to fraud detection, prevention, mitigation, and deterrence. The services of an experienced and highly skilled investigator like a forensic auditor are recommended in this regard (Ruankaew, 2016). Sorunke (2016) note that, for fraud to be committed, the person must have the capacity and ability to recognise the open doorway as an opportunity and take advantage of it by walking through it. The New Fraud Diamond Theory is presented in the figure below.

### Relationships Between the New Fraud Combination Theory and Variables

Prior research concern in detecting financial statement fraud using the fraud triangle has been studied by many researchers (Albrecht et al., 2008; Dorminey et al., 2010; Dorseh & Tevmouri, 2019). There are many theories used for fraud prevention, fraud detection and fraud response. However, the theory that will guide this article is the new fraud combination theory.

Against the background of the review of the different fraud theories, I propose the New Fraud Combination Theory to predict the existence of fraudulent financial reports. The aim is to broaden auditors' knowledge of fraud and how it occurs and to enable forensic auditors to identify, detect, deter, prevent, and investigate financial statement fraud and respond appropriately to fraud risks. While the Wilken (2016) Fraud Combination Theory added the fourth and fifth variables (capabilities, personal integrity and a lack of conscience) to the fraud triangle and filled the gap in other fraud theories, on its own, it is an inadequate tool to identify, detect, deter, prevent, and investigate financial statement fraud. This is due to the fact that it ignores the critical factor of corporate governance. Thus, the New Fraud Combination Theory is proposed that adds a sixth variable, corporate governance to the five-factor fraud combination model introduced by Popoola et al. (2014) to detect fraud in financial statements and promote understanding of why a person would violate accounting rules and standards. It is believed that the New Fraud Combination Theory will provide a strong foundation for the development of policies, strategies, and techniques to detect fraud in financial statements.



Source: Developed by the researcher (2021)

Figure 1. New Fraud Combination Theory

The new theory posits that financial statement fraud is based on six factors: opportunity; pressure; the fraudster's capability; personal integrity and lack of conscience; rationalisation or risk versus rewards; and weak corporate governance (no matter how accessible the opportunity may be, or how strong the pressure, and regardless of the rationalisation and ability and capacity of the perpetrator). Strong, effective corporate governance will ensure that the fraudster's intentions amount to nothing. Thus, corporate governance is suggested as the lock that protects NGOs from all the factors that cause financial statement fraud. Therefore, the New Fraud Combination Theory incorporates all the elements of other fraud theories. It will enable forensic auditors to consider all the factors that contribute to the occurrence of financial statement fraud in order to assess fraud risks, identify red flags for fraud, and detect financial statement fraud. It is consistent with Tonye's (2018) observation that a forensic auditor should think like a fraudster in order to combat fraud. The New Fraud Combination Theory is set out in the Figure 1.

### **Detective Fraud Risk Management Factors**

Fraud detection mechanisms and strategies aim to effectively, efficiently and promptly identify fraud that has bypassed preventive measures in order for the entity to take corrective action (Peltier-Rivest & Lanoue, 2015). Dalnial et al. (2014) state that internal controls, fraud awareness (ethics), internal and external audits, effective fraud risk analysis, fraud hotlines, accounts reconciliations, inventories, and forensic auditing all reduce fraud risks and losses by unearthing fraudulent financial statements and fraudulent transactions when used separately. Halbouni (2015) concurs and adds that financial statement fraud should be detected by analysing the statements. Abdi (2017) surveyed 43 banks in Kenya to establish the influence of forensic audits on FRM practices and fraud risk exposure. The author found that forensic audit techniques play a critical role in detecting financial statement fraud. It is recommended that a forensic investigation team should be carefully selected and should consist of a team leader (forensic investigator) an accountant, a legal expert, and an IT expert to be highly effective. However, the study did not consider other factors that influence the adoption of forensic audit services among Kenyan financial institutions.

### **Modelling Financial Statement Fraud Detection and The Relevance of Forensic Auditing**

Forensic financial analysis and showed that proactive advanced forensic data analytics can be a powerful tool to prevent, detect, and investigate financial crimes and respond to the risks of fraud and other non-compliance within entities (Misra & Walden, 2016). Misra and Walden (2016) also found that proactive forensic data analytics is an essential and key component of effective FRM, sparticularly with respect to FRAs, and fraud prevention, detection and investigation. The authors concluded that proactive forensic audit techniques supplement the rules-based tests performed by traditional auditors. However, the results of these studies depend on participants' perceptions rather than empirical testing. Furthermore, they did not focus on the main drivers of FRM factors, but on red flags in financial statements that forensic auditors can identify.

Akenbor and Ironkwe (2014) examined the relationship between forensic audits and policies in Nigeria. A structured questionnaire was employed to gather data and regression data analysis was performed. Overall, the study found that FRM policy, and fraud detection, fraud prevention, and fraud control policy within forensic audit departments should strategically guide forensic auditors in fraud detective, preventive and responsive techniques and approaches. The authors conclude that forensic audits play a significant and critical role in the FRM process. However, the study does not offer a detailed analysis of proactive forensic auditing approaches to FRM, but focuses on the development of a fraud risks portfolio.

Fortvingler and Szívós (2016) focused on the interaction between forensic audits and fraud detection among Nigerian NGOs using a questionnaire and interviews to gather data. While the study recommends that forensic audits should be used to uncover fraud, it does not clarify why financial statement fraud occurs in NGOs and how it can be prevented, detected, and investigated. Moreover, it only focuses on two fraud theories.

Uniamikogbo et al. (2019) case study found that forensic audits are a viable and critical tool in fighting fraudulent activities in Nigeria, a country where external auditors have been heavily criticised for fraud cases. Uniamikogbo (2019) identified the following fraud risk indicators: (i) unrealistic compensation packages, (ii) inadequate board oversight, (iii) unprofitable offshore operations, (iv) poor separation of duties, (v) poor computer security, (vi) inappropriate lifestyle changes, and weak or poor internal controls, and (vii) over-personalised business matters. However, the study did not propose the proactive strategies recommended in the literature to tackle financial statement fraud in the NGO sector.

Aigienohuwa et al. (2017) investigated the role of forensics in FRM and fraud detection techniques and established a correlation between FRM and the effectiveness of forensic auditing skills in Nigeria. The study also found that proactive forensic audits play a significant role in fraud detection, deterrence, investigation and prosecution. However, it focuses on the banking industry and its findings may thus not be relevant to the public and NGO sectors.

Ocansey (2017) research on forensic auditing to combat economic and financial crimes in Ghana surveyed 66 technical officers at the Economic and Organised Crime Office with questionnaires employed to gather data. Overall, the study found that forensic auditing has a significant impact on fighting financial and economic crimes in the country. It thus recommends that all entities should establish a forensic auditing unit to address internal control issues and ensure effective investigation in order to mitigate, detect and deter such crimes. However, the author did not consider computer forensic skills or lifestyle audits as techniques to combat fraudulent activities.

### **Fraud Risk Management Research in South Africa**

There is a lack of research on FRM in South Africa. Only three studies were found on commercial forensic investigators and lifestyle audits. Akinbowale et al. (2020) study concluded that South African forensic auditors require a better understanding of fraud opportunities to assist them in preventing, identifying and investigating fraud. However, the study did not consider the use of forensic auditing as a tool for effective FRM in the NGO sector or identify significant factors that influence FRM.

Rooyen (2008) empirically investigated the generic process for forensic auditors in South Africa and analysed the forensic auditing process' effect on the investigative performance and budgeting process. A questionnaire was used to gather data. The findings revealed that not only for-profit entities but also public entities should employ the services of forensic auditors as they provide irrevocable and irrefutable evidence. Although this study has implications for the production of high-quality financial reports, it is not clear whether the fraud risks arise from management fraud (financial statement fraud). Furthermore, the findings' implications for forensic investigators are not examined.

Bredenkamp (2015) South African study concurs with ENSafrica (2010) views on the relevance of lifestyle audits in forensic investigations. However, both studies are based on secondary sources and lack empirical evidence. In summary, none of the studies reviewed in this section focused on the relationship between forensic auditing and FRM practices in the NGO sector. Furthermore, to the best of the researcher's knowledge, no such research has been conducted among NGOs in the eThekweni region. While relatively scarce, empirical evidence tends to confirm the importance of forensic audits through lifestyle audits as an indicator of possible fraud and corruption. The paucity of research on FRM in South Africa motivated the current study on financial statement fraud among NGOs in the eThekweni region.

### **Research Method**

This research study adopted the sequential mixed research design in gathering data, as both qualitative and quantitative data were gathered in which the quantitative preceded the qualitative method during data collection. The population of this research study comprised eighty-seven staff (Internal auditors, forensic auditors, Managers, Accountants and bookkeepers, audit committees, Finance officers, Chief Operations officers, Chief Executive Officers, and Directors) from thirty (30) chosen NGOs. The sample (quantitative) size of roughly 87 was obtained/calculated using Raosft Software, while purposive or purposeful sampling was employed to select interviewees for this research study. The online questionnaire included a question at the end seeking participants to take part in an interview for the pure purpose of this thesis research. Fifteen (15) forensic auditors showed interest in taking part in an interview for the pure purpose of the research study but only 10 forensic auditors were interviewed via zoom meetings. This thesis research distributed a total of 87 anonymous online questionnaires approved by UKZN HSSREC. Data was gathered by means of mixed methods, namely an online questionnaire where a Likert scale of 1 to 5 (Where 1=Not at all, 2= Small Extent, 3= Moderate Extent; 4= Large Extent, 5= Very Large Extent) is used as a basis for analysis and semi-structured interviews. A Robustness analysis was fully performed using SPSS version 27 and SEM. Analysis of Moment Structures (AMOS) software version 27 for CFA and SPSS version 27 were used to estimate statistical models. NVivo version 12 was used to conduct a thematic analysis of the transcripts of the qualitative data.

The Data generated for this thesis was analysed with descriptive statistics and the analysed data was presented in the form of figures and tables for easy understanding. The results from the interviewees were personally transcribed by the researcher to protect the interviewees' anonymity and the researcher ethically protected all the respondents for confidentiality and anonymity. The Data generated for this thesis was analysed with descriptive statistics and analysed data was presented in the form of figures and tables for easy understanding.

### **Results and Discussion**

#### **Descriptive Analysis**

The study sought to establish the respondents' views on the extent to which NGOs could adopt detective FRM practices to deter fraud. A Likert scale of 1 to 5 (Where 1 = Not at all, 2 = Small Extent, 3 = Moderate Extent; 4 =

Large Extent and 5 = Very Large Extent) was used as the basis for the analysis. The means and standard deviations for the 13 questions are presented in Table 1.

**Table 1.** Descriptive Analysis

Item	Questionnaire Items	Descriptive statistics	
		Mean	Std. Deviation
1	Proactive forensic audits can guarantee prompt detection of fraud	4.48	.874
2	Proactive forensic audit can help in detecting financial statement fraud	4.22	.655
3	Lifestyle audits would assist forensic investigations	4.02	.940
4	Proactive forensic auditing is a novel model used in South Africa for detection of fraud in NGOs	4.21	.794
5	Proactive forensic audits can safeguard assets from unauthorised use	4.17	.838
6	Proactive forensic audits build sound internal audits to detect fraudulent claims	4.20	.760
7	Proactive forensic audits can enhance strategic detection of fraud	4.18	.815
8	Proactive forensic audits can enhance fraud risk awareness	4.33	.872
9	Proactive forensic audits can detect, deter, and mitigate fraud in NGOs	4.24	.762
10	Proactive forensic audits can help in reviewing weak internal audits	4.20	.875
11	Proactive forensic audits can help to build stronger financial reporting systems	4.23	.788
12	Proactive forensic audits can help to address the weaknesses of internal controls	4.25	.810
13	Proactive forensic audits can guarantee stronger financial management	4.43	.772

Source: Online Survey (2021), SPSS Version 27

The results show that the respondents expressed significant agreement that proactive forensic audits can be used as a detective FRM practice by NGOs. This is demonstrated by the following means and standard deviations for the different items: the respondents agreed, to a very large extent, with proactive forensic audits as a tool to guarantee prompt detection of fraud in NGOs with a mean of 4.48 and standard deviation of .874; proactive forensic audits as a tool to guarantee stronger financial management in NGOs with a mean of 4.43 and standard deviation of .772; proactive forensic audits as a tool to enhance fraud risk awareness in NGOs with a mean of 4.33 and standard deviation of .872; a proactive forensic audit can address the weaknesses of internal controls in the NGO with a mean of 4.425 and standard deviation of .810; a proactive forensic audit can detect, deter, and mitigate fraud in NGOs with a mean of 4.24 and standard deviation of .762; and a proactive forensic audit can help to build a stronger financial reporting system in NGOs with a mean of 4.23 and standard deviation of .788.

The results also reveal that the respondents agreed, to large extent, with a proactive forensic audit as a tool to detect financial statement fraud with a mean of 4.22 and the lowest standard deviation of about .655; a proactive forensic audit is a novel model used in South Africa to detect fraud in NGOs with a mean of 4.21 and standard deviation of .794; a proactive forensic audit as a tool to build sound internal audits to detect fraudulent claims in NGOs with a mean of 4.20 and standard deviation of .760; a proactive forensic audit can help in reviewing weak internal audits with a mean of 4.20 and standard deviation of .875; proactive forensic audits can enhance strategic detection of fraud in NGOs with a mean of 4.18 and standard deviation of .815; a proactive forensic audit can help to safeguard assets from unauthorised use in NGOs with a mean of 4.17 and standard deviation of .838; and lifestyle audits would assist forensic investigations in NGOs with a mean of 4.02 and the highest standard deviation of about .940.

The means of all the responses are above 4 and there is little variation among the responses, with the highest standard deviation at 0.940, which depicts consensus. This implies that forensic auditors enhance the detection of fraudulent activities in NGOs, and thus expose the weaknesses of organisations' systems and unethical practices. It also implies that proactive forensic auditors enhance detective FRM measures as, by detecting financial statement fraud, forensic auditing will proactively detect fraudulent activities among NGOs in the eThekweni region. This analysis of the data gathered by means of interviews confirmed the results from the quantitative analysis. The frequency distribution of the responses to the open-ended questions indicates that all ten interviewees agreed that proactive forensic audit techniques will lead to strategic fraud detection among NGOs in the eThekweni region.

These results are in line with the current body of knowledge that states that lifestyle audits during forensic auditing are useful as they: (i) identify direct evidence of fraud, (ii) can quickly help forensic auditors to narrow their list of fraud suspects who are living beyond their financial means, (iii) can quickly identify misappropriated assets and funds, (iv) are crucial fraud risk indicators, (v) is an excellent barometer of the extent of the fraud risk in

an organisation, (vi) can yield direct evidence of illegal income and hidden assets, (vii) add value to the forensic investigation, and (viii) are tools forensic auditors can use to prove that a suspect is generating income from somewhere (Bredenkamp, 2015).

The findings are also in line with Ohando and Ronald (2015) whose means and standard deviations for questionnaire items 1, 2, 5, 6, 9, 10, 11, and 12, respectively were 4.34 and .745; 4.18 and .820; 4.15 and .807; 4.62 and .609; 4.25 and .762; 4.06 and .981, 4.53 and .621; and 4.03 and .808.

### **Analysis of Interview Data**

The interviews were recorded and later transcribed and the data were analysed using conventional thematic analysis via NVivo. The use of NVivo assisted in word counts such as in the case of the proactive forensic auditing techniques suggested by interviewees to detect and respond to the risks of fraud. NVivo assisted in counting the number of times similar practices were mentioned by different interviewees.

All responses were first saved in a Word document. A project was created in NVivo to save the data, and the Word document was transferred to a rich text file which was then imported into NVivo to use in the analysis. Different parts of the document were then coded at nodes to facilitate the word counts. Various parent nodes (key research nodes) were created on NVivo in line with the key research themes; for instance, nodes for a proactive audit as a tool for fraud detection in the organisations. Sub-nodes were created on NVivo by dragging and dropping selected text to a node that was then given a name in NVivo. Finally, the data were subjected to conventional thematic analysis to calculate the frequency of the themes' occurrence. The qualitative data gathered in phase II of the analysis supported and confirmed the empirical data gathered via the questionnaire survey and enabled the researcher to confidently test the hypotheses.

Following transcription, the transcripts were transferred to NVivo 12 for analysis. While reading the transcripts, all interesting information was highlighted. In total, 461 points of interest were detected and cross-referenced against the research question. The main purpose of employing this method was full immersion in the entire dataset and to gather initial points of interest. Thus, this step offered insight into the depth and breadth of the content. As Brown et al. (2006) point out, a theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the dataset. Therefore, it was essential to conceptualise all codes as building blocks and combine similar or multiple codes to generate potential themes in relation to the research questions (Maguire & Delahunt, 2017). In order to cluster all the codes, a thematic map was initially created. The substantial thematic map included 12 themes and 29 sub-themes. All these themes were further refined in the next step of the analysis. In stage two of the analysis, all master themes and sub-themes were brought together to refine them in a more systematic way. (Brown et al. (2006) suggest that themes should be checked for internal homogeneity (coherence and consistency) and external heterogeneity (distinctions between themes). Firstly, all coded extracts relevant to each initial theme were extracted from the NVivo file and pasted into a Microsoft Word document to facilitate cross-referencing of the coded extracts with the themes and to retrieve and meaningfully compare the themes. The researcher reread all the collated extracts for each theme, and clustered all themes and sub-themes to check whether they could form a coherent pattern.

It was essential to ensure that the thematic map accurately reflected the meaning evident in the data set as a whole (Brown et al. (2006). All the themes were put back together and the thematic map was refined to reflect on the type of themes developed for this thesis and how they fit together. During the review process, many themes or sub-themes were either merged with other master themes or discarded. Careful attention was paid to identify the story that each theme told, and how it fitted into the broader overall "story" that the researcher wanted to tell about the data in relation to the research questions and to ensure that there was not too much overlap between themes (Brown et al. (2006). The specifics of each theme were carefully refined. Themes were further refined, with some lower-level themes merged with higher-order themes as it was realised that these lower-level themes would make the thematic map more complex and add little to the story told by the data.

### **Proactive Forensic Auditing is a Powerful Tool**

As stated earlier, the data collected via interviews was meant to complement and confirm the questionnaire results. In particular, the interviews confirmed the quantitative findings on the strong connection between forensic auditing and detective FRM in the NGO sector. The analysis of the interview data validated the analysis of the data obtained by means of the closed-ended questions in the questionnaire. With respect to detective FRM practices. An open-ended question aimed to establish the respondents' views on how proactive forensic auditing can be used as a powerful tool to detect financial statement fraud and other fraudulent activities among NGOs. The findings revealed that almost all the respondents believed that forensic auditing is the main tool for fraud detection. Table 2 summarises the respondents' views and their frequency distribution.

The frequency distribution presented in the above table shows that all the respondents held the view that proactive forensic audit techniques help in reviewing financial reports; analysing financial data to detect the value

of stolen assets; detecting and preventing deliberate misapplication of the accounting principles, policies and procedures used to measure, recognise, report, and disclose business transactions; and in conducting financial trend analysis to detect financial statement fraud/fraudulent activities.

**Table 2.** Frequency Distribution of Respondents'

Techniques	Frequency of citation	
	Count	Weighted%
Proactive forensic audit techniques help in reviewing financial reports	10	96%
Proactive forensic audit techniques help in analysing financial data to detect the value of stolen assets	10	96%
Proactive forensic audit techniques help in the detection and prevention of deliberate misapplication of accounting principles, policies and procedures used to measure, recognise, report, and disclose business transactions	10	96%
Proactive forensic audit techniques help to conduct financial trend analysis to detect financial statement fraud/fraudulent activities	10	96%
Surprise forensic audits on red flags are an essential way to detect fraudulent activities	9	94%
Surprise forensic audits are a reliable way of preventing, detecting, and responding to financial statement fraud/fraudulent activities	9	94%
Proactive forensic audit techniques help in the detection of intentional omission of disclosures relating to accounting principles and policies, and the figures in financial reports	9	94%
Proactive forensic audit techniques enable in-depth examination of source of documents and analyse entities' suppliers to detect fictitious invoices	8	82%
Proactive forensic audit techniques help in the detection of undisclosed material deviations from IFRS	8	82%
Proactive forensic audit tests identify fraud risk factors and indicators	8	82%
Proactive forensic audit techniques detect financial statement fraud/fictitious inventory, overstated revenue, and underestimated expenses	8	82%
Proactive forensic audit techniques help in uncovering fraudulent activities	7	79%
Proactive forensic audit techniques are relevant in the detection of travel claims, and fictitious suppliers and invoices	7	79%
Proactive forensic audit techniques help in investigating fraud risks, and red flags in financial reports	7	79%
Proactive forensic audit techniques help in identifying material misstatement and misappropriated assets	6	68%
Proactive forensic audit techniques help in the detection of red flags in financial statements	6	68%
Proactive forensic audit techniques help in identifying all the factors contributing to the occurrence of financial statement fraud/fraudulent activities	6	68%
Lifestyle audits help in conducting forensic investigations to detect all kinds of fraudulent activities	6	68%
Proactive forensic audit techniques could help in ongoing fraud risk assessment	6	68%
Forensic audit techniques could help in assessing fraudsters' capability to commit financial statement fraud and other fraudulent activities	6	68%

Source: Virtual interviews (2021), NVivo version 12

These results support previous studies that found that employees who commit fraud against their employers are mainly members of senior management who are employed in finance and operations, or as executives and that the occurrence of such fraud is increasing since senior management has the ability and capability to commit fraud (Etherington, 2018; Jackson & Stent, 2010). The results also indicate that proactive forensic audits are very relevant in assessing fraudsters' capability of committing financial statement fraud and are critical in addressing weaknesses in internal controls which create a high risk of opportunity to commit fraud. However, Aigienohuwa et al. (2017) argued that NGOs cannot copy and paste large for-profit entities and public sector entities' forensic investigation systems.

The statements that surprise forensic audits are a reliable way of preventing, detecting, and responding to financial statement fraud; discovering red flags, and intentional omission of disclosures relating to accounting principles and policies, and the figures in financial reports were all supported by nine of the respondents.

Eight interviewees agreed that proactive forensic audit techniques help in the detection of undisclosed material deviations from IFRS; in in-depth examination of the source of documents and analysis of entities' suppliers to detect fictitious and fake invoices; and in detecting financial statement fraud/fictitious inventory, overstated revenue, and underestimated expenses in NGOs.

Proactive forensic audit techniques help in uncovering fraudulent activities, are highly relevant in the detection of travel claims, fictitious and fake suppliers and fictitious invoices, and help in investigating fraud risks, and red flags in financial reports were all mentioned seven times.

Proactive forensic audit techniques help in identifying material misstatement and misappropriated assets; in the detection of red flags in financial statements; in identifying all the factors contributing to the occurrence of financial statement fraud/fraudulent activities; and lifestyle audits help in conducting forensic investigations to detect all kinds of fraudulent activities, and could help in an ongoing fraud risk assessment, and in assessing fraudsters' capabilities to commit financial statement fraud and other fraudulent activities were agreed to six times.

Similarly, six respondents were of the view that proactive forensic audit techniques help in the detection of red flags in financial statement fraud. The interviewees also emphasised that such techniques assist in addressing weaknesses in internal controls and internal audits (some senior managers override internal controls and audits), and the challenges experienced by rule-based audits (traditional auditors) in detecting financial statement fraud and other fraudulent activities among NGOs. The ineffectiveness of rule-based audits in preventing and detecting fraud was also noted by Akinbowale et al. (2020) who found that external auditors are not suitably equipped to identify, assess, and detect asset misappropriation, corruption and financial statement fraud as they apply their judgement and make estimates and their major focus is not to identify fraud.

The results from the virtual interviews conducted via Zoom meetings with experts and knowledgeable participants corroborated the findings from the analysis of the questionnaire data in section of this article.

### Structural Equation Modelling for Detective Fraud Risk Factors

In order to develop an improved measure and to ensure a good model fit, it began with an exploration of the FRM factors (latent variables or constructs) required to conceptualise detective FRM scale items: a proactive forensic audit can guarantee prompt detection of fraud in the NGO (Qe1); a proactive forensic audit would help in detecting financial statement fraud in the NGO (Qe2); lifestyle audits would help in forensic investigations in the NGO (Qe3); a proactive forensic audit is a novel model used in South Africa for detection of fraud in NGOs (Qe4); a proactive forensic audit can guarantee that assets are safeguarded from unauthorised use in the NGO (Qe5); sound internal audits would help in detecting fraudulent claims in NGOs (Qe6); a proactive forensic audit can enhance strategic prevention of fraud (Qe7); a proactive forensic audit can enhance fraud risk awareness (Qe8); the key objective of a proactive forensic audit is to detect, deter, mitigate and fraud (Qe9); a proactive forensic audit can help in reviewing weak internal audits (Qe10); a proactive forensic audit can help in building a stronger financial reporting system in the NGO (Qe11); a proactive forensic audit can help in addressing the weaknesses of internal controls in the NGO (Qe12); and a proactive forensic audit can guarantee stronger financial management (Qe13).

### Standardised Regression Weights

**Table 3.** Standardised Regression Weights

	Constructs	Estimate	S.E.	C.R.	P	Label
Qe1	← DETEC	1.000				
Qe2	← DETEC	0.794	0.134	5.939	***	Supported
Qe3	← DETEC	1.123	0.192	5.864	***	Supported
Qe4	← DETEC	0.946	0.162	5.847	***	Supported
Qe5	← DETEC	1.023	0.171	5.972	***	Supported
Qe6	← DETEC	0.817	0.153	5.335	***	Supported
Qe7	← DETEC	1.040	0.167	6.208	***	Supported
Qe8	← DETEC	1.058	0.178	5.943	***	Supported
Qe9	← DETEC	0.931	0.156	5.977	***	Supported
Qe10	← DETEC	1.065	0.166	6.404	***	Supported
Qe11	← DETEC	1.034	0.163	6.357	***	Supported
Qe12	← DETEC	0.978	0.165	5.914	***	Supported
Qe13	← DETEC	1.085	0.161	6.736	***	Supported

Source: Online Survey (2021), AMOS Version 27



A number of diagnostic measures such as paths estimates (AMOS/standardised regression weights that link the individual indicators to a particular construct; the minimum recommended is 0.7 but 0.5 is acceptable and variables with low or insignificant loading should be considered for deletion) for CFA should be checked. The assessment of unidimensionality in CFA, is that each indicator should load highly on a single factor, the loading factor should 0.50 or more. The standardised regression weights for the study's indicators and found that all indicators had a high loading towards the latent variable and all the values of the different parameter estimates met the minimum recommended value of 0.5. The latent variables and their indicators that were developed in the AMOS process were as follows: detective FRM with 13 scale items/variables, and detective FRM with seven scale items/variables.

In terms of proactive forensic auditing techniques' role in enhancing NGOs' FRM in the eThekweni region, a statistically significant relationship was established between proactive forensic auditing and detective FRM, indicating that [DETEC] was strongly empirically supported. The results of these assessments (Regression Weights: (Group number 1 - Default model) are shown in Table 3.

### Discussion of a High Level of the Results

As discussed in the literature review, having proactive forensic auditing techniques is essential for detective fraud risk management and financial statement fraud detection (Abdi, 2017; Halbouni, 2015; Peltier-Rivest & Lanoue, 2015). Since fraud detective measures are the drivers of fraud risk management. Forensic auditing and detective fraud risk management measures go hand in hand (Abdi, 2017). The results of the researcher's analysis, it was revealed that there is a statistically significant relationship between proactive forensic auditing and detective fraud risk management indicating that [DETEC] was empirically supported strongly. Furthermore, respondents were, thus, in significant agreement that proactive forensic audit is highly relevant and can be used to proactively detect the risks of financial statements fraud among NGOs as the means of all responses are above 4 and the variations among responses were low as the highest is 0.940 which depicts the consensus.

It was concluded that there is a statistical significance between proactive forensic auditing techniques and financial statement fraud detection among NGOs in the eThekweni region. Peter et al. (2014) argue that the burning issue is the high costs associated with forensic services, arrests, trials, convictions, and reputational risk for the entity concerned, making forensic audits unaffordable for many NGOs. However, Amin and Harris (2017) assert that any NGO that believes that it will never fall victim to fraud is in for a big shock and Kimathi (2018) states that directors should recognise that some NGO employees are not perfect executors of their duties and that forensic audits should not be regarded as an expensive luxury. The author concluded that, directors and senior executives under fire might find forensic audits useful in sustaining their organisations

This thesis research result supports the current body of knowledge that found lifestyle audits during forensic auditing are advantageous as they: (i) identify direct evidence of fraud, (ii) can quickly help forensic auditors to narrow their list of fraud suspects who are living beyond their financial means, (iii) can quickly identify misappropriated assets and funds, (iv) is crucial fraud risk indicators, (v) are an excellent barometer of the extent of the fraud risk in an organisation, (vi) can yield direct evidence of illegal income and hidden assets, (vii) will add value to the forensic investigation and, (viii) are tools forensic auditors can use to prove that suspect is generating income from somewhere (Bredenkamp, 2015; Weber & Gillespie, 1998). Furthermore, the results of the current thesis research also support the results of Ohando and Ronald (2015) who found strong conformity of the respondents on the significance of lifestyle audits during forensic auditing on fraud reduction in the Kenyan Banking industry.

More so, this finding is empirically supported and articulated in the extant literature for example (Dorminey et al., 2010; Farouk et al., 2016; Jackson & Stent, 2010; Rooyen, 2008). Dorminey et al. (2010) describe that a forensic investigation team could consist of a team leader (Forensic investigator) an accountant (forensic auditor), a Legal expert, and an IT expert (computer forensic auditor) to be highly effective in the detection, prevention of financial statements fraud and other fraudulent activities. This finding also agrees with previous studies such as Misra and Walden (2016) revealed that proactive forensic auditing has a significant positive relationship with financial statement fraud detection. This implies that the increase in forensic auditing leads to an increase in the detection of financial and economic crimes and financial statement fraud among NGOs in the eThekweni region. This also implies that forensic auditors enhance the detection of fraudulent activities in NGOs, and thus expose the weakness of organisations' systems and other unethical practices.

The well-known fraud theory used by ISA 240, namely the fraud triangle was soundly and highly criticised to be ineffective in identifying and detecting financial statement fraud because it excludes the fraudsters' capability and competency, corporate governance, personal integrity and lack of conscience. Therefore, it is strongly recommended that ISA 240 should be expanded to include the new fraud combination theory.

Educating auditors online, contact and or on-demand sessions on new and or current forensic auditing skills and techniques by expanding their knowledge on how to detect financial statement fraud is highly recommended. NGOs should ensure that proactive forensic analysis, fraud risk assessments, surprise fraud audits,

and surprise forensic audits of their financial data is conducted which will contribute to the overall detective fraud risk management process as they are reliable ways of detecting, preventing, and investigating fraud.

NGOs' financial statement fraud should be investigated by competent forensic auditors and fraud risk management strategies and practices should incorporate detection and investigation techniques. Future studies could also explore if the theory offered by the thesis research on motivations behind trust violators to commit fraud, could actually help forensic auditors properly assess, identify, detect, and investigate financial statement fraud.

Scholars and researchers in the field of auditing and fraud risk management may wish to conduct further research in this field and should use this thesis research as a point of reference. Further research is recommended based on the study's results which could serve as a stepping stone towards finding sustainable solutions to the fraud risks in the NGOs sector.

### **The Implication of The Findings and Study's**

The thesis research is one among the fewest that have attempted to empirically investigate the phenomenon of forensic auditing and detective fraud risk management in NGOs in a developed country. Generally, there have been calls for more studies in this area and this study is in response to these calls. Thus, this article contributed toward understanding fraud risk factors and indicators that arguably, drive detective fraud risk management practices in the NGOs sector. The thesis research demonstrated the role of the relationship between the main drivers influencing detective fraud risk management measures. The fact that the results and findings of both the questionnaire and interviews conclusively proved a positive and significant relationship between proactive forensic auditing and the main drivers of detective fraud risk management (proactive detective fraud risk factors).

This complemented and supported strongly the growing literature, such as Abdi (2017) found that the involvement of proactive forensic auditing techniques and skills has raised the hope of detecting and investigating of financial statement fraud globally. More specifically, this article closes the gap in the literature by connecting a proactive approach to forensic auditing and proactive detective fraud risk drivers in the NGOs context. This implies that there is a great need for NGOs in the eThekweni region to explore how they could use proactive forensic auditing techniques to enhance detective fraud risk management measures in their entities. This article contributed to the knowledge by bridging the gap in the literature with the introduction of the new fraud combination theory which tends to consider all the necessary factors associated with fraud occurrence. The research contributes to critical realism philosophy in accounting and auditing and accommodation of interpretivism and positivism philosophy in accounting and auditing. This article expanded the knowledge of detective fraud risk management studies using a more robust scientific research methodology in the accounting and auditing discipline. The practical application of this model is the empowerment of the knowledge of NGOs potential stakeholders in the detection of financial statement fraud. This article adds to the body of existing knowledge and is a guide for researchers to further research on the subject matter in areas that were not addressed in this article.

### **Conclusion**

Financial statement fraud has affected the growth and development of NGOs in the eThekweni region in the past decades. The findings revealed that \$61 billion dollars were lost to financial statement frauds in NGOs with serious implications for growth and development. Various measures have been adopted to minimise financial statement fraud without success. It has been established empirically that a proactive approach to forensic auditing is an effective tool to detecting financial statement fraud. Based on the study's results and findings of both the questionnaire and interviews showed that the proactive approach to forensic auditing has a significant influence on detective fraud risk management among non-government organisations in the eThekweni region of South Africa as seen in previous sections. It is advised that the study results be considered carefully.

Above all, the results and findings of both the questionnaire and interviews revealed that proactive forensic auditing skills and techniques have a significant influence on detecting the risks of financial statement fraud among NGOs in the eThekweni region, South Africa. The researcher concludes as follows: Financial statement fraud detection model has empirically been supported strongly and proven that the application of proactive forensic auditing skills and techniques can contribute greatly to detective fraud risk management among NGOs in the eThekweni region. In view of this development, proactive forensic auditing techniques are very much needed to checkmate the activities of fraudsters in the NGOs sector.

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