The role of forensic auditing techniques in preventing non-government organisations' financial statement fraud in South Africa using a proactive approach

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ABSTRACT

This study is designed to investigate the role of proactive forensic auditing techniques in preventing fraudulent activities among NGOs in the eThekwini region. The population of this study comprised 87 knowledgeable staff in the field of fraud risk management and auditing selected from 30 NGOs. Primary data was gathered using an online questionnaire and semi-structured interviews. Quantitative data were analysed with the aid of SPSS version 27, while NVivo12 assisted in thematically analysing all interview questions. Analysis of movement Structures (AMOS version 27) was also used to estimate statistical models. Empirical findings proved that a proactive approach to forensic auditing techniques could hugely assist in preventing fraudulent activities among non-government organisations in the eThekwini region, South Africa. Relying on these empirical findings, this study proposes a model for proactively preventing financial and economic crimes in NGOs. This study contributes to the current body of knowledge and further contributes to fraud risk management in NGOs. This study has also provided a very robust plan for future researchers.

Background of the study

Globally, incidents of fraud and scandals in large NGOs such as the Red Cross, United Way, American Cancer Society, the Youth Motor Sport Foundation, the Baptist Foundation of Arizona, the American Federation of Teachers, the Women's royal voluntarily service, etc. have been a continuing burning issue (Archambault, Webber and Greenlee 2015). In South Africa and elsewhere, there have been several high-profile examples of misuse of donor funds within the NGOs sector through fraud (Agere, 2014; Kang'ethe and Manomano, 2014).

Poor proactive preventive fraud risk management practices are known as a common factor that influences the failures of NGOs in the eThekwini region, and according to Mvunabandi, Nomlala, and Patrick (2022), "KwaZulu-Natal Blind and Deaf Society, one of the largest and most-respected NGOs in the eThekwini region, had lost R12 million, siphoned off from the organisation's bank accounts by an officer who had sole access to its online banking". The Society's Board of Directors and staff have raised serious questions as to why auditors gave clean audits year after year. This incident has highlighted NGOs' financial vulnerability as well as the consequences of ineffective proactive preventive fraud risk management. The level of proactive preventive financial statement fraud in particular and fraud risk management practices in general of current NGOs in the eThekwini region, KwaZulu-Natal South Africa, is unknown. Accordingly, the sustainability and financial viability of existing NGOs in this region are uncertain. This is a problem because the viability and sustainability of existing NGOs in this region are crucial for local and national socio and economic development. This issue further motivated this study on how forensic auditors could appropriately prevent financial statement fraud risk factors in the NGOs in the eThekwini region.

Esmaili Kia, Najafnia, and Oshani (2019) briefly described the following four elements required: (1) intentional omissions of disclosures concerning accounting principles and policies and related to financial figures in the financial reports; (2) deliberate misapplication of accounting principles, policies and procedures used to measure, recognise, report and disclose business transactions, (3) material intentional omissions or misrepresentation of events and transactions, accounts and other significant information from financial reports prepared, and (4) falsification, alteration, or manipulation of material records, supporting documents, or business transactions, in order to provide an understanding of what financial statement fraud is all about.

Financial statement fraud prevention is the process of stopping the occurrence of financial statement fraud in an organisation and a study conducted by Wells (2017) and (Chepkoech and Rotich (2017) revealed that "it could involve the removal of the casual enabling factors that encourage financial statement fraud in an entity, and putting in place necessary proactive measures to deter or stop or discourage financial statement fraud in an entity is what financial statement fraud prevention is all about". A forensic audit has a huge and unique focus that distinguishes it from regularity, performance, financial, environmental, budget, and computer auditing.

Globally and in South Africa, in particular, the primary objectives of the forensic audit, according to Khersiat (2018:147-148) built on Oyedokun (2016) work are: (1), "to determine the nature and extent of the perpetration of financial and economic crimes and the adequacy and effectiveness of measures that should have either prevented or detected such crimes, (2) and to facilitate the investigation of economic and financial crimes in general by providing critical support to the relevant investigating, and or prosecuting institutions (by handing over cases and providing accounting and auditing skills)". Proactive and reactive forensic audit techniques have been developed as the major drivers to achieve these objectives; interestingly, forensic auditors are increasingly being asked to play a critical role in helping organisations investigate, prevent, detect and investigate fraudulent activities (Amah, 2018). In this article, the main issue and purpose are to investigate empirically how can proactive forensic auditing techniques facilitate the deterrence or prevention of fraud in the financial statements among NGOs in the eThekwini region. A question dominating the research space is: whether or not fraudulent activities among NGOs can be proactively prevented using forensic auditing techniques. In our view, responding to this question will fill a research gap in the literature

and enable similar research. The question also motivates the current research builds on the gaps in the extent of literature (Bello, Mohammed, & Javan, 2022; Kimathi, 2018; Nandini & Ajay, 2021), and it holds the centre stage in scientific inquiry leading NGOs to prevent financial scandals. The objective of this research is to extend the debate on the role of a proactive approach to forensic auditing techniques in inhibiting fraudulent activities among NGOs in the eThekwini region, South Africa.

Literature review

This study adopted the NFTT; the FDT; the FBKM Theory; the Fraud Concealment Theory, the holistic model theory, the FRM Life Cycle Theory, and the Fraud Deterrence Theory. Furthermore, the researcher developed a robust theory, the New Fraud Combination Theory. All these theories offer insights into fraudulent activities among NGOs. This mix of theories can be described as a multi-paradigm approach aimed at gaining in-depth insight into the research topic. The main aim is to assist auditors to effectively performing fraud risks assessments (FRAs) robustly by broadening their knowledge of fraud risks and how they occur and responding appropriately to those risks. Central factors that are always present when committing financial statement fraud are outlined in the newly developed fraud combination theory and forensic auditors have to consider as follows: (1) weak corporate governance (Fraud Key Box Theory), (2) pressure or motivation (NAVSMICE – National Value System; M = Money; I = Ideology; C = Coercion; and E = Ego); (3) fraud opportunity (fraud triangle); (4) capability and competence (New fraud diamond theory); (5a) personal integrity (fraud scale theory) (5b); lack of conscience or employee's arrogance (crow's fraud pentagon theory) and (6) rationalisation.

Financial statement fraud committed by NGOs Management

Hopwood, Leiner, and Young (2012:411) assert that "intentional deviation from IFRS involves three elements. Firstly, any undisclosed material deviation from IFRS is, by definition, misleading because the lack of disclosure leads users to believe that the statements comply with IFRS when in fact, they do not. Secondly, research shows that financial statements are linked to users' decisions; thus, users will rely on misleading financial statements. Lastly, the users of financial reports are serious". According to Zack (2003), NGO management intentionally commits fraudulent financial reporting by making false assertions in financial reports. These include: (i) misleading donors by misclassifying project expenses, (ii) misleading donors by misclassifying restricted donations, (iii) non-disclose of significantly related party transactions, (iv) inflating revenue, (v) understatement of expenses, failing to correctly value donated assets, inventory, receivables, expenses misreporting, and split-interest liabilities or gift annuity obligations. Such fraud is carefully planned by people in high positions in the organisation. Anichebe, Agbomah, and Agbagbara's (2019) recent survey of 101 NGOs that had recorded fraudulent activities found that falsifying financial statements was prevalent in such entities. The authors recommend a strong Board of Directors that establishes an effective audit committee to detect and deter financial statements and other fraud within the sector.

Preventive Fraud Risk Management factors and forensic auditing techniques

Prevention is always better than cure, and fraud prevention and deterrence are less costly than fraud detection (Hemraj, 2004; Omar and Bakar, 2012). Chepkoech and Rotich (2017) define preventive FRM as all efforts and means to forestall the occurrence of fraud. In other words, preventive FRM's strategic and tactical objectives are to tackle fraud before it occurs in an entity proactively. Sanusi (2015), argues that fraud prevention begins with the identification of weak internal controls, policies and systems and the enforcement of sound controls which reduce opportunities for fraud. Garbou (2016) states that anti-fraud policies and procedures, an audit committee, an effective fraud prevention policy like internal controls and fraud vulnerability reviews, a limit on transactions and their proper authorisation, and separation of duties can curb fraud. Adetiloye and Olokoyo (2016) identify clear procedures, policies, and improved internal audits and controls as tools and techniques to prevent and deter fraud. Houdek (2017) concurs that fraud could be prevented by means of sound policies and internal audits.

A Critical review of Academic Literature on forensic auditing techniques

Samociuk and Iyer (2010) state that a comprehensive FRM strategy includes developing an anti-fraud culture, assessing and responding to fraud risks (preventive FRM practices), detecting fraud (detective FRM practices), and managing fraud incidents and measuring fraud resistance (responsive FRM). Thus, the forensic auditor's primary concern is fraud detection, prevention and responses to the organisation's losses (Ittonen, 2010).

Oyedokun (2016) identifies forensic auditing techniques, including "(1) robust computer-assisted reviews (Hybrid Multimodal, Predictive Coding, Bottom Line Driven Proportional Review, Review Quality Controls) which include data mining techniques such as regression (predictive); (2) Association Rule Discovery (descriptive); (3) classification (predictive); (4) clustering (descriptive); (5) and document review; (6) interviews; (7) background reading; (8) fraud risk assessment; (9) benchmarking; (10) systems analysis; (11) mathematical modeling; (12) analysis of financial ratios; (13) technology-assisted reviews; (14) litigation; (15) lifestyle audits; (16) qualitative and quantitative approaches to fraud risk assessment; (17) vertical financial statement analysis (which entails analysing the relationship between different financial accounts); (18) horizontal financial statement analysis (comparing the current year's financial statements with those of previous years or comparison of financial statistics across time periods); (19) surprise audits,; and (20) operational ratios analysis, among others". Nigrini (2020) notes that the techniques used by forensic auditors to detect fraud, errors and other anomalies include (i) analysis of credit card transactions, (ii) risk scoring with regard to access, (iii) FRAs using forensic units, (iv) time series analysis, (v) correlation, (vi) abnormal duplications within subsets, (vii), the relative size factor test, (viii) the largest subsets and largest growth tests, (ix) testing the internal diagnostics of the current period and prior period data, (x) Benford's law, (xi) Access, (xii) Excel, (xiii) Powerpoint, and (xiv) high-level data overview tests.

Benjamin Onodi, Okafor, and Onyali (2015:73) identify three essential computer forensic auditing techniques to detect fraudulent activities within firms, namely, (i) cross-drive analysis - where a forensic auditor correlates information on multiple hard drivers to identify and detect anomalies (Garfinkel, 2006), (ii) Live analysis - examination of a computer from within the operating system using forensics tools to extract evidence, especially

when dealing with encrypted files systems (Qasim, Rind, and Saleem, 2011), (iii) recovering deleted files, and (iv) rigorous and focused tests that yield a small sample of highly specious transactions (Ngomane, 2010; Philipp, Cowen, and Davis, 2009).

Empirical review

The critical role of forensic audits in fighting fraudulent activities has also been confirmed in a study conducted by Uniamikogbo (2019) using Nigeria as a case study. The study found inappropriate lifestyle changes, poor separation of duties, weak and poor internal controls, inadequate board oversight, unrealistic compensation packages, unprofitable offshore operations, and over-personalised business matters as the highest fraud risk indicators. However, the study failed to suggest proactive strategic approaches to tackle fraudulent activities in the NGO sector. It also failed to test the prevention and detection drivers linked with falsified financial reports, as was done by Smith and Wright (2009), and did not empirically validate fraud risk indicators associated with the prediction of the incidents of fraudulent activities among NGOs. Whilst Van Rooyen (2008) strongly recommended that both non-profit and public entities should employ the services of forensic auditors because they provide irrevocable and irrefutable evidence. However, Van Rooyen's (2008) study did not examine the findings' implications for forensic investigators. In summary, none of the studies reviewed in this section focused on the relationship between forensic auditing and FRM practices in the NGO sector.

Knowledge gap and Gap Analysis

Much of the literature on forensic auditing focuses on for-profit organisations and, to some extent, State-Owned Entities (SOEs). The literature sets out broad principles for preventing fraud risks among for-profit entities. However, there is little guidance on this issue for NGOs and their funders. The gap between stakeholders or funders and traditional auditors' perspectives on proactive preventive financial statement fraud has widened in recent years and debate continues on the precise roles and responsibilities of traditional auditors (Ogweno, 2018). The gap between stakeholders' (donors/beneficiaries and NGOs themselves) expectations and auditors' mandates need to be closed (Sikka, 2009). Stakeholders believe that a traditional auditor would detect fraud during the traditional auditor's audit (Kassem and Higson, 2016). However, forensic auditing is essential in order for NGOs to prevent or reduce financial crimes within the framework of the ISA. The researcher believes that adding forensic auditing techniques to the audit process will assist in closing the expectations gap.

Stakeholders' misunderstanding of the core roles and responsibilities of auditors has created unrealistic expectations and financial statement fraud and audit failures have become burning issues. However, the techniques and procedures applied by external auditors during traditional audits are designed to detect material misstatements, not immaterial fraud and corruption (Ştirbu et al., 2010). The use of forensic auditors could fill this expectation gap. A forensic audit addresses the shortcomings of traditional audits and controls as forensic auditors investigate, prevent and detect misappropriation of assets, financial misstatements, and financial statement fraud. The current study aimed to address the expectation gap by highlighting the role of forensic auditing techniques as a powerful tool to detect

fraud in financial statements in the NGO sector. Drawing on the literature and focusing on NGOs in the eThekwini region, it examined the relationship between forensic auditing and the main drivers of FRM. Therefore, the aim of this research is to extend the debate on the role of a proactive approach to forensic auditing techniques in inhibiting fraudulent activities among NGOs in the eThekwini region, South Africa.

Research Methodology

Using sequential mixed research approach. Data for this study was gathered from 87 knowledgeable staff in the field of fraud risk management and auditing selected from 30 NGOs and purposively chosen. Primary data was gathered using an anonymous online Likert scale questionnaire :1 for Not at all, 2 for Small Extent, 3 for Moderate Extent; 4 for Large Extent, and 5 for Very Large Extent) and semi-structured interviews approved by the University of KwaZulu-Natal Human Social Sciences Research Ethics Committee. Quantitative data were analysed with the aid of SPSS version 27, while NVivo12 assisted to thematically analyse all interview questions. Analysis of movement Structures (AMOS version 27) was also used to estimate statistical models. Ten forensic auditors were interviewed via zoom meetings. The online survey (questionnaire) preceded the semi-structured Interviews during data gathering. Data gathered from eighty-seven staff working at various NGOs via the online interviews with ten (10) forensic auditors assisted in complementing and confirming the results of the online questionnaire, in particular, the results from the online interviews confirmed the online questionnaire results in the areas such as the significance of forensic auditing techniques and fraud detection, fraud prevention and in response to fraud risk in NGOs. To test the fitness of the model and to evaluate independent variables, SEM and CFA applications have been used. A Robustness analysis was fully performed using SPSS version 27 and SEM. NVivo version 12 was used to conduct a thematic analysis of the transcripts of the qualitative data.

Data presentation and interpretation of the results

Table 1. The Respondent's rate and descriptive analysis of the extent to which proactive forensic audits can be used as preventive fraud risk management practices in NGOs.

Item Nº	Questionnaire Items	Responses					Total	Descriptive statistics	
		Very Large Extent	Large Extent	Moderate Extent	Small Extent	Not at All		Mean	Std. Deviation
1	A proactive forensic audit can guarantee strategic prevention of fraud	58 66.7%	14 16.1%	12 13.8%	3 3.4%	0 0.0%		4.46	.860
2	A proactive forensic audit can help to build an efficient internal controls system to prevent future occurrence of fraud	19 21.8%	57 65.5%	11 12.6%	0 0.0%	0 0.0%	87 100%	4.09	.583
3	A proactive forensic can help to prevent fraud as far as possible	33 37.9%	28 32.2%	25 28.7%	1 1.1%	0 0.0%	87 100%	4.07	.846
4	A proactive forensic audit can help in establishing anti-fraud policy in the NGO	26 29.9%	42 48.3%	15 17.2%	4 4.6%	0 0.0%	87 100%	4.03	.813
5	A proactive forensic audit can help in applying fraud opportunities tests	40 46.0%	30 34.5%	13 14.9%	4 4.6%	0 0.0%	87 100%	4.22	.868
6	A proactive forensic audit can help to address weaknesses in internal audit and audit committee	24 27.6%	49 56.3%	13 14.9%	1 1.1%	0 0.0%	87 100%	4.10	.683
7	A proactive forensic lifestyle audit	41 47.1%	21 24.1%	19 21.8%	6 6.9%	0 0.0%	87 100%	4.11	.982
8	A proactive forensic audit can help in building an inventory of fraud opportunities	32 36.8%	33 37.9%	20 23.0%	2 2.3%	0 0.0%	87 100%	4.09	.830
9	A proactive forensic audit on employment screening	40 46.0%	31 35.6%	14 16.1%	2 2.3%	0 0.0%	87 100%	4.25	.810
10	A proactive forensic audit can help in using IT to prevent electronic fraud	41 47.1%	35 40.2%	9 10.3%	2 2.3%	0 0.0%	87 100%	4.32	.755
11	A proactive forensic audit can help in building sound policies to prevent the future occurrence of fraud	39 44.8%	30 34.5%	18 20.7%	0 0.0%	0 0.0%	87 100%	4.24	.777
12	A proactive forensic audit can address unethical practices	40 46.0%	35 40.2%	10 11.5%	2 2.3%	0 0.0%	87 100%	4.30	.764
13	A proactive forensic audit can prevent financial irregularities	43 49.4%	28 32.2%	14 16.1%	2 2.3%	0 0.0%	87 100%	4.29	.820
14	A proactive forensic audit can help in building an effective anti-fraud policy	49 56.3%	23 26.4%	11 12.6%	4 4.6%	0 0.0%	87 100%	4.34	.874

Source: Online Survey (2021), SPSS Version 27.

Descriptive analysis of the extent to which proactive forensic audits can be used as preventive fraud risk management practices in NGOs

The findings reveal that proactive forensic audits can be used to prevent and deter fraud risks of financial statement fraud as most of the respondents were in significant agreement with all questionnaire items in table 1 above. This is shown by the above means scores and standard deviations for the various questionnaire items. The means of all the responses are above 4, and there is little variation among them as the highest standard deviation is 0.982, which depicts consensus. This suggests that the adoption of proactive forensic auditing techniques will assist in preventing fraudulent activities among NGOs in the eThekwini region. Furthermore, the findings presented in the table above point to strong conformity in the respondents' views on the relevance of proactive forensic auditing as a tool for preventive FRM among NGOs in the eThekwini region. This implies that an increase in the use of forensic audit services is closely associated with fraud prevention, fraud detection, and responding to the risks of fraud.

These results concur with Ocansey's (2017) finding that proactive forensic auditing had a significant positive relationship with FRM in Ghana. The results of the current study also support the current body of knowledge that found that proactive forensic auditing is a crucial measure to prevent fraudulent activities in various contexts (Aiken, 2016; Amah, 2018; Eyisi, 2014; Oyedokun, 2016; Uniamikogbo, 2019; Walden, 2016), as well as Smith (2005), Hershensohn and Block (2005), and Thomopoulas (2013) who found that proactive computer forensic audits are effective in preventing electronic fraud.

The data analysis identified the different ways in which proactive forensic auditing can prevent financial statement fraud and other fraudulent activities. These results are in line with Njanike, Dube, and Mashayanye (2009) and Ogutu and Ngahu's (2016) studies that advocated for the use of proactive forensic auditing techniques to prevent financial and economic crimes and to reduce the number of financial scandals, fraudulent financial practices, manipulation of the figures reported in financial reports, cybercrimes and misappropriation of assets within entities. The results also support Ştirbu et al.'s (2010) finding that forensic auditors can identify and prevent fraud risks. A clear implication for practice is that an increase in using proactive forensic auditing would lead to increased prevention of fraudulent activities among NGOs in the eThekwini region.

Structural equation modelling for preventive fraud risk factors

Table 2. Regression Weights

	Constructs		Estimate	S.E.	C.R.	P	Label
Qd1	<---	PREV	1,000				
Qd2	<---	PREV	,706	,139	5,082	***	Supported
Qd3	<---	PREV	,830	,194	4,278	***	Supported
Qd4	<---	PREV	,834	,188	4,444	***	Supported
Qd5	<---	PREV	1,015	,205	4,946	***	Supported
Qd6	<---	PREV	,724	,158	4,569	***	Supported
Qd7	<---	PREV	1,049	,228	4,600	***	Supported
Qd8	<---	PREV	1,010	,198	5,106	***	Supported
Qd9	<---	PREV	,766	,185	4,146	***	Supported
Qd10	<---	PREV	,840	,177	4,754	***	Supported
Qd11	<---	PREV	1,033	,189	5,464	***	Supported
Qd12	<---	PREV	1,009	,186	5,438	***	Supported
Qd13	<---	PREV	1,038	,197	5,264	***	Supported
Qd14	<---	PREV	1,080	,209	5,171	***	Supported

Source. Online Survey (2021), AMOS Version 27

To test the robustness of the empirical evidence obtained, Table 2 shows the results among 14 study's latent variables/ constructs or measures used, namely: Qd1 "a proactive forensic audit can help in building an efficient internal controls system to prevent the future occurrence of fraud", Qd2 " a proactive forensic audit can guarantee strategic prevention of fraud", Qd3 "a proactive forensic audit can help to prevent fraud as far as possible", Qd4 "a proactive forensic audit can help in establishing anti-fraud policy in the NGO", Qd5 "a proactive forensic audit can help in applying fraud opportunities tests", Qd6 "internal audit and audit committee", Qd7 "lifestyle audits"; Qd8 "a proactive forensic audit can help in building an inventory of fraud opportunities"; Qd9 "employment screening", Qd10 "a proactive forensic audit can help in using IT to prevent electronic fraud"; Qd11 "a proactive forensic audit can help in building sound policies to prevent the future occurrence of fraud"; Qd12 "a proactive forensic audit can address unethical practices"; Qd13 "a proactive forensic audit can prevent financial irregularities in NGOs"; and Qd14 "a proactive forensic audit can help in building an effective anti-fraud policy". Relying on these empirical findings, this study, this study found a statistically significant relationship between a proactive approach to forensic auditing and FRM, indicating that the preventative fraud risk management practices model was strongly empirically supported. The results of the current study are overwhelmingly supported in the literature (Curran, Bollen, Paxton, Kirby, & Chen, 2002; Kenny & McCoach, 2003; Leite, Bandalos, & Shen, 2022; Marsh, Balla, & McDonald, 1988; West, Wu, McNeish, & Savord, 2022).
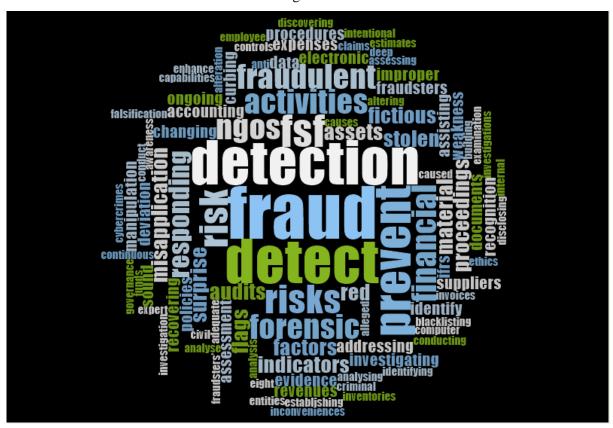
Analysis of the themes that emanated from the interviews (open-ended questions) and Frequency Analysis of interview data

The analysis of the data from interviews confirmed the quantitative findings on the strong connection between forensic auditing and preventive, detective, and responsive FRM in the NGO sector. Ghauri, Grønhaug, and Strange (2020) note that this is an effective data collection method that yields more in-depth, descriptive answers than a survey. The analysis also revealed the measures adopted by these NGOs and shed light on FRM practices that should be implemented to prevent, detect and respond to fraud risks. This confirms the results of Albrecht (2001) and Adeniyi's (2016) studies that found that proactive forensic auditing techniques are sufficient to proactively prevent,

detect and investigate financial and economic crimes within any entity. The results of the current study are overwhelmingly supported in the literature (Peter et al.,2014; Amin and Harris ,2017).

Frequency Analysis of interview data and Frequently cited words

The themes emanating from the in-depth analysis of the responses by expert and knowledgeable participants are similar to the above three significant themes. The frequency analysis (frequently cited words in word cloud) of the data obtained from the interviews is set out in Figure 1 below.

Figure 1. frequently cited words in the word cloud
Source: Virtual interviews (2021), NVivo version 12.

Discussion of the results

The research established a statistically significant relationship between proactive forensic auditing and preventive fraud risk management, indicating that [PREV FRM] was strongly empirically supported (Van Rooyen, 2008; Samociuk and Iyer, 2010; Jackson and Stent, 2010; Walden, 2016; Taylor, 2018). The results of the current study also support the current body of knowledge that found that proactive forensic auditing techniques and preventive fraud risk management measures go hand in hand (Jans, Lybaert, and Vanhoof, 2009).

   Furthermore, the results of the overall model from the structural equation analysis on the evaluation of theoretical preventive fraud risk management-PFRM (goodness-of-fit indices) confirm that proactive forensic auditing techniques have a positive impact in enhancing PFRM among NGOs in the eThekwini region. It was found that, overall, this model on FRM factors exhibited a good fit to the data: CMIN=107,520; DF=524; P=.000; *SRMR*=.002;

CMIN/DF=2,053; GFI=,920; AGFI=,520; CFI=,998; PGFI=,648; PCFI=,652; TLI=,976; IFI=,904; RFI=,517; NFI=.549; PNFI=,613; RMSEA=,076; and HOELTER=0.05 for the sample of 87. This model is significant and acceptable at all acceptable levels per the literature, more specifically, Marsh et al. (1988) and Enders and Mansolf's (2018) observations. They also concluded that proactive forensic auditing has assisted in uncovering financial and economic crimes in countries such as the United Kingdom, United States, Germany, Malaysia, Nigeria, India, Kenya, and Canada. The finding in respect of PFRM theory is strongly empirically supported. Following this, PREV <--> RESP: (Estimates=,784); (S.E.=,053); (t-Value (C.R) =4,002); and (P-Value=***), and DETEC<-->PREV:(Estimates=,884); (S.E.=,068); (t-Value (C.R.) =3,972); and (P-Value= ***). All loading values have *p*-values significantly higher than 0.05, which indicates that the CFA model was theoretically sound. This confirms the results of Albrecht (2001) and Abbas's (2020) studies that found that proactive forensic auditing techniques are sufficient to proactively prevent, detect and investigate financial and economic crimes within any entity.

This finding addresses the research question and this evidence is consistent with Okoye and Akenbor (2009) and Enofe, Omagbon, and Ehigiator (2015) and extends the literature by demonstrating that NGOs' stakeholders and auditing profession take into consideration the overall credibility of fraud risk management models.

This thesis research result corroborates with that demonstrated by Ocansey (2017) who showed that proactive forensic auditing has a significant positive relationship with preventive fraud risk management in Ghana. This finding also supports the findings of other prior studies that found that proactive forensic auditing is an essential measure in preventing fraudsters from committing financial statement fraud and detecting fraudulent activities in different contexts (Aiken, 2016; Amah, 2018; Eyisi, 2014; Oyedokun, 2016; Uniamikogbo, 2019; Walden, 2016).

This finding also corroborates with that demonstrated by Smith (2005), Hershensohn and Block (2005), and Thomopoulas (2013), who found proactive computer forensics, to a very large extent, can be used to proactively prevent electronic fraud as shown by mean score and standard deviations 4.32, and .755 respectively. This implies that forensic auditors enhance the effectiveness of internal control by preventing financial statement fraud; forensic auditing will prevent fraudulent activities in the NGO sector. Also, a clear implication is that the increase in the usage of proactive forensic auditing techniques leads to a decrease in financial and economic crimes.

The results of the current study are overwhelmingly empirically supported in the literature (Aiken, 2016; Jackson and Stent, 2010; Kranacher, 2019; Rooyen, 2008; Saidu, 2015). The results support the body of knowledge that found a forensic investigation team should consist of a team leader (forensic investigator), an accountant (forensic auditor), a legal expert, and an IT expert (computer forensic auditor) in order to be highly effective in the detection and prevention of financial statement fraud and other fraudulent activities Mehta and Bhavani, 2017; Kranacher, 2019). This also supports earlier discussion that recommended the use of the role of surprise lifestyle audits and forensic audits in fighting financial and economic crimes (Kranacher, 2019). This finding also agrees with previous studies such as Fakie (1999); and Aiken (2016) that established a significant positive relationship between proactive forensic auditing and financial statement fraud prevention.

The research results corroborate those of Tanim (2016), who found 4.01 and .812, 4.15 and .764, 4.85 and .787, .4.04 and 4.08, 4.93 and .996, 4.28 and .841, and 4.87 and .957 as means and standard deviations for items 2, 3, 4, 5, 6 and 7 of the questionnaires, respectively. However, they contradict Eyisi (2014) and Utomwen's (2015)

studies that found an insignificant relationship between forensic auditing and preventive and responsive FRM in the Kenyan financial sector. The findings concur with those of Ryoba's (2006) study in Tanzania and Koh and Arokiasamy's (2009) in Malaysia. Ryoba (2006) found 30 (28,6%); 40 (47,6%); 18 (23,8%), 36 (42,9%); 7 (33.3%); 44 (52,40), and 27 (42,90) as frequency percentages for questionnaire items 1, 2, 3, 4, 5, 6, and 7, respectively. For their part, Koh and Arokiasamy (2009) found 40 (38,10%); 45 (44,20%); 25 (23,80%); 35 (33.30%); 24 (38,10%); 32 (58,10%), and 53 (68,41%) as frequency percentages for questionnaire items 3, 1, 4, 6, 5 ,7 and 2, respectively. These are very similar percentages to the number of respondents who rated proactive forensic auditing techniques as either most significant or significant to a very large extent 64 (73.6%). This suggests a link between proactive forensic auditing techniques and proactive detectives, preventives, and responses to the risks of fraud. This suggests an increase in the use of proactive forensic auditing leads to a decrease in fraud risks among NGOs in the eThekwini region. The study's results also support studies that found that forensic auditors are not only deeply involved in preventing, detecting or identifying fraud but generally engage in a much wider variety of FRM engagements (Aiken, 2016; Walden, 2016; Knežević, 2015; Gillespie, 2014; Geldenhuys, 2016; Kapardis and Courakis, 2017).

Recommendation

The proactive techniques for fraud prevention, identification, and fraud detection on the basis that "prevention is better than curing" are particularly strongly recommended rather than using reactive techniques, which favours the philosophy that "we wait and see or repulse when attacked". 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 fraud risk management process as they are reliable ways of preventing financial statement fraud. NGO's financial statement strategy developed should incorporate proactive fraud preventive measures.

The implication of the findings and the study's contribution to the existing body of knowledge

Proactive forensic auditing techniques have proved instrumental in preventing financial statement fraud by providing empirical evidence in NGOs contexts. This study contributed toward understanding fraud risk factors and indicators that arguably, drive preventive fraud risk management practices in the NGO sector. This study showed the relationship between proactive forensic auditing and the drivers influencing preventive fraud risk management practices. The study's findings conclusively proved a positive and significant relationship between proactive forensic auditing techniques and proactive preventive fraud risk factors.

This discovery gave credence to the findings of McIntyre (2016) and Mehta and Bhavani (2017). This is also supported by the findings of Oyedokun (2016) and Nigrini (2020), who found that the involvement of forensic auditing has significantly raised hope of preventing the risk of fraud globally. These authors attested to the fact that forensic auditing has significantly prevented fraudulent activities in developed countries using their services.

This research fills in the gap in the literature by linking the proactive approach to forensic auditing proactive preventive fraud risk drivers in the NGO sector. This implies that there is a great need for NGOs in the eThekwini

region to explore how they could use proactive forensic auditing techniques to enhance preventive fraud risk management measures in their entities. This research also contributed to the knowledge by bridging the gap in the literature with the introduction of the new fraud combination theory, which can help auditors to effectively perform fraud risks assessments (FRAs) robustly. This study contributed to the scholarly debates for policymakers, practitioners and audit professionals and academia on using proactive forensic auditing in the NGO context. This study has also provided a very robust plan for future researchers.

Conclusion

The objective of this research was: to examine whether or not proactive forensic audit techniques can significantly prevent financial statement fraud among NGOs in the eThekwini region. Empirically, the study's results revealed that proactive forensic auditing has proved instrumental in preventing fraudulent activities by providing empirical evidence in NGO contexts as the means of all the responses were above 4, and the variations among them were low, with the highest at 0.982, depicting consensus. There was thus sufficient statistical significance to show the relevance of proactive forensic auditing techniques in preventive FRM. Overall the study conclusion is as follows: preventative fraud risk management model has been supported strongly and empirically and proved to be a powerful instrument to inhibit fraud risks among NGOs in the eThekwini region. It is, therefore, advised that the study results be considered carefully. This study has also provided a very robust plan for future researchers.

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