



Whistleblowing System in Forensic Audit for Fraud Disclosure

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Abstract

Business competition makes companies must be able to maintain their survival, but fraud that occurs can result in high risks for the company so that it needs to be anticipated and managed properly. This study intends to examine the role of the whistleblower system in the implementation of forensic audits, particularly in effort to reveal fraud. The approach employed in this research is a Literature Review (SLR) study employing data sources from various national and international research. The results showed that the whistleblowing system has an important role as a provider of initial information about fraud that occurs in an organisation in both the government and private sectors. Information obtained from whistleblowers can then be used as preliminary evidence for auditors to conduct investigative audits and forensic audits that pay attention to the interests of evidence based on the law. This study also found that whistleblowers are more comfortable disclosing fraud to external parties than to internal organizations and are more willing to disclose fraud information if the fraud is committed by peers and equals than if it is committed by leaders or top management.

Keywords: Whistleblowing System, Forensic Audit, Fraud.

1 Introduction

Doing business in the Asian continent looks promising and has many profit opportunities, including in Indonesia. Indonesia has been praised by the World Economic Organisation for providing many conveniences for businesses, such as starting a business, paying taxes, and transacting internationally. Indonesia's economy was able to grow impressively at 5.44% in Q2-2022 amidst various global challenges and supported by a relatively manageable inflation rate, with Indonesia's inflation in July 2022 reaching 4.94%, higher than other countries such as Germany (7.5%) and France (6.1%). Currently in Indonesia, financial inclusion is one of the main focal points for enhancement (Wufron et al., 2023)

Unfortunately, the growing economy is also inseparable from fraud. According to (Association of Certified fraud Examiners, 2024) the scam is known as occupational fraud which is "The use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organisation's resources or assets". Occupational fraud is a type of commercial

fraud in which any of the world's approximately 3.55 billion employees has the opportunity to become involved.

This potential occurs because companies entrust them with cash and organisational assets to manage their business even though only a small percentage of the workforce can commit occupational fraud. This creates the conditions for fraud losses globally to reach trillions of dollars per year. Based on a 2024 poll by the Association of Certified Fraud Examiners (ACFE), the following figure depicts the fraud plan:

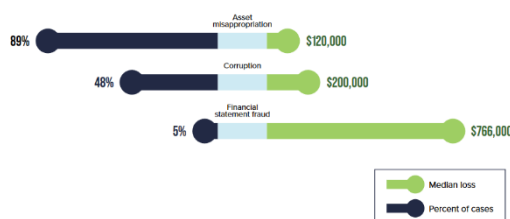


Figure 1: Fraud Schemes Categories

There have been several fraud instances in Indonesia. For example, in 2023, Johnny G Plate, the former minister of communication and information, was implicated in a corruption case involving the construction of 4G Base Transceiver Station (BTS) towers, which came at a cost of IDR 15.5 billion to the state (BBC News Indonesia, 2023). The case of PT Garuda Indonesia Tbk reported a fantastic financial performance with a net profit of US\$ 809 thousand or a total of 11.33 billion even though in the previous year it suffered a loss. (pppk.kemenkeu.go.id, 2019). Fraudster's luxurious behaviour occurred in the biggest corruption case that occurred in Indonesia in 2024, the Attorney General's Office investigated a case of alleged corruption in the tin commodity trading system from 2015 to 2022 with ecological losses reaching IDR 271 trillion which ensnared dozens of suspects, two of whom were Crazy Rich Indonesia, namely Helena Lim and Harvey Moeis. Reflecting on the PT Timah corruption case, which has a time span of 7 years of corruption, early detection of fraud is very important to limit the amount of losses incurred in an organisation. Another illustration is the Bernie Madoff scam, in which investors were duped out of \$64.8 billion by means of the biggest Ponzi scheme ever. The scam involving Lehman Brothers, which concealed loans worth roughly \$50 billion that were declared sales (Kledo.com). Internal control is expected to contribute to playing a role in detecting fraud that occurs. (Komite Nasional Kebijakan Governansi, 2022), internal control in the company includes a whistleblower system. A whistleblowing system is a way for people to disclose suspected criminal acts that have happened or will happen involving workers and other individuals in the company where they are employed, provided that the reporter is not involved in the crime they are reporting. The existence of a whistleblowing system can help public sector organisations to detect fraud. With the information provided by whistleblowers to auditors, it can be used as initial evidence for investigative audits and then if it is believed that fraud and crime have occurred in an organisation, a forensic audit will be carried out to provide evidence in the legal process that occurs.

To detect someone committing fraud, signs or symptoms commonly called red flags are needed. A forensic audit will produce red flags or signals of discrepancies. Red flags are a signal that something should not be fraud is a clue to the possibility of fraud. An auditor must be able to detect fraud by understanding the signals from red flags when there is a situation that is not in accordance with what should be, has fraud irregularities different from the situation in normal conditions. (Singleton & Singleton, 2010).

Mursalim et al., (2021) claimed that the fraud prevention mechanism in place is functioning effectively and that if a violation reporting system is put in place, it will be simpler for whistleblowers to disclose signs of fraud. The likelihood of fraud is positively correlated with the number of reports from whistleblowers. Because words that enter the whistleblower system are an early indicator of an act of violation or fraud, the system can help government auditors undertake forensic audit activities. Another opinion according to Hanifah & Clyde (2022) contends that forensic audits benefit from the whistleblower system. When fraud is reported to the organization, it serves as an early warning that there may be fraud within the organization. As a result, people are more inclined to disclose potential fraud in the organization due to the whistleblowing system's protection and convenience of use. Organizations will find it simpler to carry out forensic audits as a result of reports provided by whistleblowers.

Another study was conducted by Dilshad et al., (2020) which examined the noteworthy correlation between the dependent variable—whistle blowing on fraud control—and the independent variable. This study also discovered that when it comes to identifying fraud in business organizations, forensic audits are more accurate than ordinary audits. The analysis of the study's findings reveals that there isn't much of a correlation between fraud control and forensic auditing in the public and private sectors. There is a strong correlation between organizational effectiveness in the public and private sectors and whistleblowing. Meanwhile, according to Lauck et al., (2022) discovered that two tactics that raise the possibility that client employees will report suspected fraud to external auditors during client fraud investigations mandated by auditing standards are reminding client employees of the legal protections available to whistleblowers at public companies and conducting fraud investigations later. The findings shed light on procedures that auditors might use to increase the efficacy of their fraud disclosures.

Based on the background and theoretical studies, the research question in this study is stated:

Table 1: Research Question

RQ	Description
RQ1	How is the theory underlying the whistleblowing system in forensic auditing to reveal fraud?
RQ2	How does the procedure for reporting whistleblowers help forensic auditors find fraud?

2 Literature Review

2.1 Whistleblowing System

According to National Committee on Governance Policy (2022) the existence of a whistleblowing system can help public sector organisations to detect fraud. Internal control in the company includes a whistleblower system. Meanwhile, according to (Semendawai, 2011) Whistleblowing system is a system of disclosing violations or disclosing unlawful acts or other acts that can harm the organisation and stakeholders. In an attempt to deter infractions and crimes within the organization, this system was created. This mechanism is available for reporting crimes committed by the company, either by its employees or by anyone outside of it.

There are two types of whistleblowing systems according to Brandon (2013), namely: internal whistleblower and external whistleblower. The supporting elements in the whistleblowing system according to (Albrecht et al., 2014) are as follows: a) Anonymity i.e. Workers need to know that they may report questionable activities without worrying about facing consequences, b) Independence i.e. Workers are more at ease reporting infractions to a third party that is impartial

and unaffiliated with the company or the offending party, c) Access i.e. employees must have several different channels to report violations, namely by telephone, email, online or mail, d) Observation i.e., Events that are reported via the whistleblower system have to be investigated further, and remedial action has to be done when necessary.

2.2 Audit Forensic

The process of obtaining facts and evidence in the context of legal or financial disputes and financial irregularities, including fraud, as well as offering preventive counsel, is known as forensic audit. It involves gathering, verifying, processing, analyzing, and reporting data (Enofe, 2015). Investigative audit or forensic audit is an activity to collect legal evidence and evidence that is acceptable by applicable laws and regulations for use in legal proceedings (Tuanakota, 2019). In its implementation, forensic audits have two characteristics, namely proactive, which means that forensic audits are used to detect fraud or fraud risks in the company. The next trait is reactive, which means that the audit is carried out when there is initial evidence and indications of fraud in the company (Nur, 2022).

The methods used in forensic auditing specifically help find fraud. There are many approaches for deeper and even level detection, who is willing to commit fraud (Ridho Abdhilla et al., 2023). The stages in the forensic audit process consist of problem identification, discussion with the client, preliminary examination, examination development, further examination and preparation of financial reports. A forensic audit's main goals are to identify and stop fraud in a firm and to assess the losses that could result from fraud that has been committed.

According to The Association of Certified Fraud Examiners (ACFE), fraud is an unlawful act committed by someone with a specific purpose intentionally, such as manipulating reports to other parties. (Cressey, 1953) introduced the fraud triangle theory which has three stages with its fraud triangle. These stages consist of pressure, opportunity, and rationalisation. The framework in this study can be presented as follows:

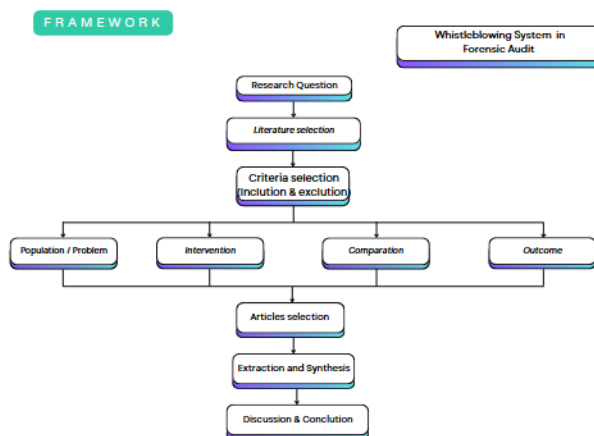


Figure 2: Research Framework

3 Research Methods

Important steps in the qualitative research process include formulating questions and protocols, gathering particular data from participants, doing an inductive analysis of the data that moves from particular topics to broad themes, and interpreting the findings (Zahra et al., 2023). The Systematic Literature Review (SLR) approach is used in this study. According to Kitchenham et

al., (2009), SLR is a process of identifying, assessing and interpreting all research documents that have been conducted so as to provide answers to research questions and objectives more specifically and accurately. SLR data collection stages according to Hoque: 2014 in (Evy Rahman Utami, 2024) consists of stages, namely: determination of the topic, determination of objectives, determination of search tools, identification of sources, future research, critical appraisal, classification of literature and drawing conclusions.

Criteria	Inklusi	Ekslusi
Population	Study on whistleblowing system and forensic audit	Studies that are not related to whistleblowing system and forensic audit
Intervention	Factors that cause fraud	Factors that do not contribute to fraud
Comparison	-	-
Outcome	Whistleblowing System in Forensic Audit	-
Database	Scopus dan Google Scholar	Selain Scopus dan Google Scholar
Criteria	<ul style="list-style-type: none"> - Journals that have the keywords whistleblowing system and forensic audit - display full text - Journals can be downloaded - National and International accredited journals - Themes found are relevant - Descriptive qualitative and descriptive quantitative research methods 	<ul style="list-style-type: none"> - Journals only display abstracts or not full text - Journals cannot be downloaded - journals are not accredited nationally and internationally - Themes found are not relevant - Other than descriptive qualitative and descriptive quantitative research methods
Publication	2018 – 2024	Outside 2018 - 2024
Language	English	Besides English

Figure 3: Inclusion and Exclusion

The next stage is to conduct literature extraction which aims to select criteria that are in accordance with the research question. This is how the literature extraction from this study might be presented:

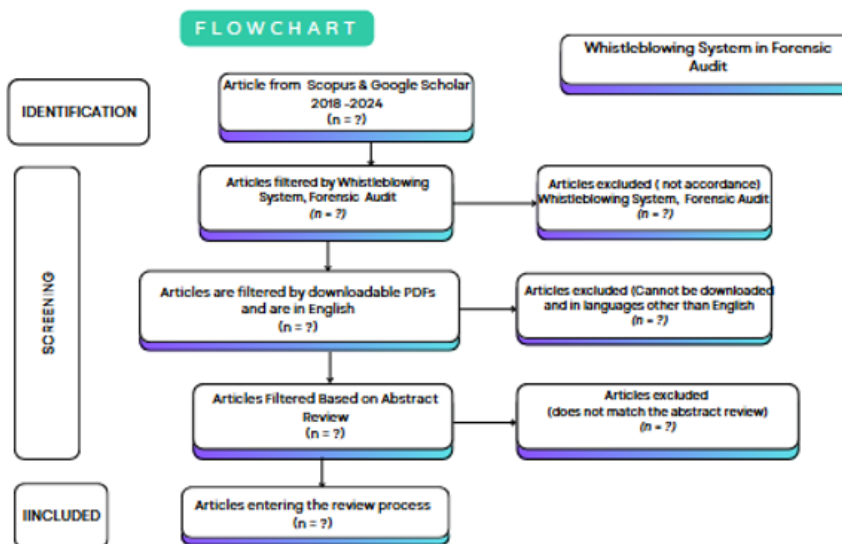


Figure 4: Flowchart of Data Extraction Process

4 Research Results And Discussion

4.1 Research Results

The trend of research related to whistleblowing systems in forensic auditing has been carried out in several countries such as Indonesia, America and Nigeria. This explains that the high level of fraud and crime in these countries so that research needs to be done on how to minimise this. In its development, the implementation of forensic audits is growing, one of which is through the existence of a whistleblowing system where its implementation also follows current developments. The existence of forensic audits in this digital era is very helpful to enforce the law from all fraud that occurs in the economic sector to the current government, so that the implementation of the whistleblowing system must also use or be technology-based. innovations that forensic auditors can do to be able to step on the intelligent forensics stage and how forensic auditors can develop entry level competencies. In the field of forensic auditing, there is potential for a rise in the variety of fraudulent activities due to the present developments in digital technology.

Forensic audit in the Industry 5.0 era must be able to act proactively, must start using data analytics in solving a problem to help companies keep up with digital developments in the Industry 5.0 era. This makes researchers also develop research directions using technology-based audits and the application of technology-based whistleblowing systems.



Figure 5: Network, Overlay and Density Visualization

Based on Figure 5 above, there are 16 keyword items and consist of 3 research clusters. The first cluster consists of keywords namely factor, forensic accounting, forensic audit, fraud detection, impact, investigative audit, and whistle. The second cluster consists of fraud prevention, influence, internal audit, and internal control. The third cluster consists of the keywords auditor, intention and whistleblowing system. Figure 5 shows the novelty of the research publication year where it can be explained that the results of research related to the whistleblowing system based on its novelty can be attributed to 4 keyword items, namely forensic audit, investigation audit, auditor and internal audit. Figure 6 explains that the most research conducted uses the keywords whistleblowing system, forensic accounting, fraud prevention, and forensic audit.

Literature extraction was carried out in accordance with the inclusion and exclusion criteria and then 17 articles were included in the review process which can be described as follows:

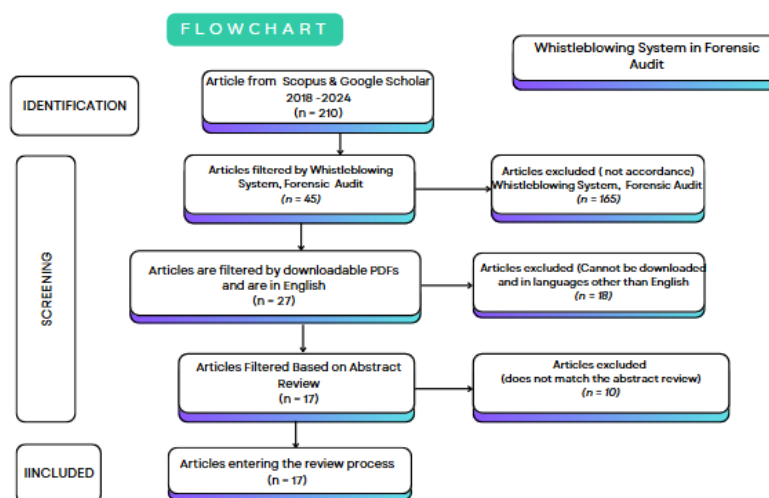


Figure 6: Flowchart of Data Extraction Result Process

Based on the literature extraction that has been carried out above, 17 articles were selected for further analysis by researchers, namely

Table 2 Selected Journal Article Data

No	Topic / Author	Keyword	Methods	Research location
1	How Auditors' <i>Fraud</i> Inquiry Strategies Can Increase the Likelihood of <i>Whistleblowing</i> (Lauck et al., 2022)	audit inquiry; audit quality; ego depletion; <i>whistleblowing</i>	This research method is qualitative by conducting observations, interviews and analyses.	Employees with more than 8 years of experience and over 15 years of age in the U.S.
2	Empirical evidence of <i>forensic auditing</i> and <i>whistleblower</i> on <i>fraud</i> control, organizational performance (Dilshad et al., 2020)	<i>Forensic auditing</i> , Whistle-blower, <i>Fraud</i> Control, Organization performance	Using a deductive approach with a positivism paradigm. Survey research design with a cross-sectional approach.	Case Study of Public and Private Sector in Pakistan
3	The significance of <i>whistleblowing</i> as an anti- <i>fraud</i> measure (Albrecht et al., 2014)	<i>Whistleblowing</i> , anti <i>fraud</i> measure	used logistic regression analysis to test the research design	Global
4	The Effect of <i>Forensic audit</i> Services on Tax <i>Fraud</i> in South-South, Nigeria (Ibadin & Embele, 2023)	<i>forensic audit</i> services, tax <i>fraud</i> , Nigeria	Using mixed methods. Using a cross-sectional research design with survey data collection and structured questionnaires,	Southern Nigeria
5	Forensic accounting & auditing techniques on public sector <i>fraud</i> in Nigeria (T Ogiriki, 2018)	Forensic Accounting, Auditing, <i>Fraud</i> , Public Sector.	The research method is descriptive quantitative and uses multiple regression testing	Nigeria
6	The Effect of <i>Whistleblowing</i> and Professional	Auditor Ability; <i>Fraud</i> Audit Training; <i>Fraud</i> Detection;	Using quantitative descriptive methods. Data analysis using the	Auditors working for the Supreme Audit Agency of

	Skepticism on <i>Fraud</i> Detection Audit with <i>Fraud</i> Audit Training as a Moderating Variable (Waromi et al., 2024)	Professional Skepticism; <i>Whistleblowing</i>	Moderated Regression Analysis (MRA) technique, which is facilitated through the use of SPSS 25 software.	Papua Province Representative in Indonesia
7	Effect of Data Mining, Computer-assisted Auditing Software (CAAS) and the Use of Anonymous Communication on Financial <i>Fraud</i> Detection in Local Government Council of Oyo State, Nigeria (Elizabeth et al., n.d.)	Anonymous communication, Computer-assisted auditing software, Data mining, <i>Fraud</i> detection, Local government council	qualitative descriptive research methodology to gather opinions from Local Government staff.	Local Government in Oyo State Oyo, Nigeria
8	<i>Whistleblowing</i> system, Machiavellian personality, <i>fraud</i> intention: An experimental study (Hanrin Damas Triantoro, 2020)	<i>Whistleblowing</i> system, Machiavellian personality, <i>fraud</i> intention	The research method uses qualitative	Undergraduate accounting students from seven universities in Indonesia who took the auditing course
9	<i>Whistleblowing</i> intentions of lower-level employees: The effect of reporting channel, bystanders, and wrongdoer power status (Gao et al., 2015)	<i>Whistleblowing</i> , Bystander effect, Reporting channel, Sarbanes-Oxley	It is a qualitative research through observation and analysis	Mahasiswa bisnis di universitas negeri di Amerika Serikat
10	<i>Whistleblowing</i> in audit firms: Organizational response and power distance (Taylor & Curtis, 2013)	<i>whistleblowing</i> ; ethical dilemma; power distance; gender	Using mixed methods in research by conducting observations, analyses, and calculations.	third-year audit seniors from Big 4 firms, who take part in annual training sessions and represent offices across the United States.
11	<i>Forensic auditing</i> Techniques and Audit Quality of Public Sector Establishments in Nigeria (Ezugwu et al., n.d.)	<i>Forensic auditing</i> technique, audit quality,	Quantitative research using multiple regression testing	Ministries, Departments and Agencies (MDAs) in Abia State, Nigeria
12	The effect of <i>whistleblowing</i> system toward <i>fraud</i> detection with <i>forensic audit</i> and investigative audit as mediating variable (Priyadi et al., 2022)	<i>Whistleblowing</i> system, <i>Fraud</i> Detection, <i>Forensic audit</i> , Investigative Audit	Quantitative research and with Smart PLS 3 test tool	Inspectorate of Banten Province, Indonesia
13	The comprehensive model of whistle-blowing, <i>forensic audit</i> , audit	Whistle-blowing, <i>Forensic audit</i> , Audit Investigation, and <i>Fraud</i> Detection	The method used in this research is the conceptual research framework method.	Yogyakarta, Indonesia

	investigation, and <i>fraud</i> detection (Mamahit & Urumsah, 2018)		conceptual research framework method.	
14	The Effect of Whistleblowing System toward <i>Fraud</i> Prevention: Mediation of Forensic and Investigative Audit (Hanifah & Clyde, 2022)	<i>Forensic audit, Fraud Prevention, Investigative Whistleblowing system.</i>	This research is a quantitative study that uses hypothesis testing to make references about population parameters. Using PLS in data testing	Auditor at the inspectorate of Banten Province
15	<i>Whistleblowing's</i> effectiveness in preventing <i>fraud</i> through <i>forensic audit</i> and investigative audit (Mursalim et al., 2021a)	Wistleblowing, <i>Forensic audit, Fraud</i> Prevention, Investigative Audi	It is a quantitative research using AMOS as a research test tool in conducting descriptive analysis and path analysis.	auditors in the office of the Financial and Development Supervisory Agency (BPKP) Representative of West Sulawesi Province were involved in this study.
16	Can forensic and investigation audit and <i>whistleblowing</i> detect <i>fraud</i> during the Covid-19 pandemic? (Ramadhan & Mulyati, 2022)	<i>Forensic Audit, Investigative Audits, Whistleblowing, Fraud</i> Detection, COVID-19 Pandemic	Quantitative research	auditors working at BPKP, BPK, and Inspectorate, Dompu Regency NTB, Indonesia
17	The impact of whistle-blowing on the effectiveness of <i>forensic audits</i> and investigative audits in <i>fraud</i> detection: A multigroup analysis of gender and experience (Urumsah et al., 2023)	Whistle-blowing, <i>forensic audit, investigative audit, fraud</i> detection, gender and experience moderation	This research uses a quantitative approach.	Investigative auditor at the Supreme Audit Agency (BPK) RI, the Financial and Development Supervisory Agency (BPKP) RI, BPKP Yogyakarta Special Region, BPKP Central Java, and BPKP East Java.

4.2 Discussion

Based on the results of a review of various reference sources above, it can be analysed that the forensic audit procedure relies heavily on the whistleblowing system to uncover fraud. As stated by (Hanifah & Clyde, 2022) and (Priyadi et al., 2022) that the implementation of a whistleblowing system will encourage and increase employee participation in reporting violations that have an impact on fraud, and that the system can detect fraud and has a significant positive effect on forensic audits and investigative audits. The conceptual research model for detecting fraud using proprietary methods, specifically, the effectiveness of forensic and investigative audits in identifying fraud, as well as the role of whistleblowing in bolstering the audit process. This idea can serve as a foundation for the government sector to evaluate its efficacy in identifying fraud

and to provide managers and decision makers feedback on aspects that should be taken into account to enhance fraud detection in order to improve fraud prevention techniques going forward (Mamahit & Urumsah, 2018) and (Hanrin Damas Triantoro, 2020).

Through their immediate and significant impact on fraud prevention through investigative audits, whistleblowing programs are beneficial (Mursalim et al., 2021). Several techniques, particularly on the internal front, might enhance fraud detection. These include improving the caliber of an auditor by boosting their impartiality, independence, and professional skepticism as well as maximizing their capacity to complete audit assignments. In order to promote auditor performance and implementation in line with the present pandemic conditions, another factor—the establishment of the whistleblowing system—is equally crucial (Ramadhan & Mulyati, 2022). The findings show that whistleblowing positively and significantly affects forensic audits, investigative audits, and ultimately, fraud detection. Both forensic audit and investigative audit also showed a positive and significant impact on fraud detection. The moderating effects of gender and experience were not observed in the relationship between whistle-blowing and the aforementioned audits or fraud detection. These results imply that putting in place a whistleblowing system can improve early warning for fraud detection, make it easier to report fraud, and act as a useful monitoring mechanism to stop internal misbehavior in government agencies (Urumsah et al., 2023).

Research examining best practices for auditors in conducting examinations of clients found that educating staff members about the safeguards in place to protect whistleblowers helps allay the fears that many have regarding reprisal against them (Lauck et al., 2022). Meanwhile, (Dilshad et al., 2020) assessed the most effective relationship between whistleblowing and forensic audit with regard to uncovering fraud, where forensic audit should be included in the required audit and forensic auditors should be included during the audit in the audit team. The study examined the relationship between forensic audit or whistleblowing on fraud control and organizational performance in the public or private sector.

The implementation of a whistleblower system will greatly assist companies in monitoring the effectiveness of the organisation as Whistleblower complaints are the most effective way for organizations to track and verify that the system is operating as intended and that staff members are appropriately trained in its use. Millions of dollars can be saved by organizations when fraud is avoided or discovered early. The frequency of using whistleblower complaints as a method of investigation and the peak times for whistleblower complaints (Albrecht et al., 2014).

According to (Ibadin & Embele, 2023), that by decreasing the incidence of tax fraud in Nigeria, forensic audit services can boost compliance and tax income. Research conducted in Nigeria by (T Ogiriki, 2018) showed that the best way to address the extent of fraud in the Nigerian public sector is to use forensic accounting and auditing approaches. To enhance fraud detection, investigation, and prevention mechanisms in the public sector, it was suggested, among other things, that the government take into consideration setting up additional fraud hotlines, enhance whistleblower regulations, and create forensic accounting divisions in the public sector (Waromi et al., 2024) stated that whistleblowing and professional scepticism have The association between professional skepticism and fraud identification is not moderated by training in fraud auditing, which has a substantial impact on fraud detection. Based on this, government internal and external audit can increase professional scepticism through fraud audit training and using whistleblowing information.

Local government councils should consider and prioritise the adoption and utilisation of data mining techniques, computer-aided audit software (CAAS), and also encourage the use of

anonymous communication channels that can encourage a culture of reporting and whistleblowing (Elizabeth et al., n.d.). Channels for third-party managed reporting might offer more robust procedural protections to preserve anonymity and prevent the appearance of improper behavior. When reporting channels are externally handled as opposed to internally managed, whistleblowing intents are higher. We also found that externally managed reporting channels lessen the detrimental impact of onlookers on the objectives of whistleblowers (Gao et al., 2015). Auditors have the ability to report unethical behavior they witness in their colleagues. Auditors are more likely to report their peers than their superiors, but when the prior organizational response was robust rather than weak, they were more likely to report the latter (Taylor & Curtis, 2013). The audit quality of MDAs in Abia State is positively and significantly impacted by computer forensic techniques. As a result, the researchers suggested that during investigations, computer forensic processes be followed and specialists like Certified Public Accountants be consulted. Furthermore, digital forensics training for accountants will provide them with the knowledge and abilities needed to investigate high-profile crimes involving public officials (Ezugwu et al., n.d.).

5 Conclusions

Based on several studies that have been previously analysed, it is clear that auditors using the whistleblowing system to conduct forensic audits benefit greatly from it. With the information provided by whistleblowers to auditors, it can be used as initial evidence for investigative audits and then if it is believed that fraud and crime have occurred in an organisation, a forensic audit will be carried out to provide evidence in the legal process that occurs. An important note in the implementation of whistleblowing is the need to build a systematic and good system that makes it easier for whistleblowers to provide information and the need to give confidence to whistleblowers in the security and confidentiality of data so that it will increase courage and confidence to provide the information needed.

A procedure in place for reporting whistleblowers is felt to be an important point in efforts to disclose fraud that occurs in an organisation both in the government sector and in the business sector so it is very important for organisations to be able to implement this system in their management. In several studies it was also found that whistleblowers feel more comfortable and brave to provide information to external parties than external parties. Of course this is an advantage and benefit for auditors if it can be utilised properly and auditors have the ability to extract as much and complete information as possible from whistleblowers. The forensic audit whistleblowing system also allows companies to build a more transparent organisational culture, ensure integrity, and encourage everyone to take responsibility for unethical actions. Companies can build a strong reputation and ensure sustainable growth by making people feel comfortable reporting violations.

In practice, a whistleblower actually knows about an alleged violation or crime because he is or works in an organised group of people suspected of committing a crime, in a company, public institution, or government institution, so it is very important that information can be obtained by the auditor from the whistleblower. However, in reality, there are still concerns for whistleblowers to disclose the existence of these crimes because there is no guarantee of data confidentiality and security guarantees for themselves. In addition, there are still many organisations that do not have a good system or even those that have adopted technological advances in implementing a whistleblowing system, which should also increase whistleblower confidence and reveal fraud in an organisation.

Another weakness of the observed research results is the low level of whistleblower trust in internal parties of the organisation when compared to external parties such as auditors. In addition, employees are also not willing to disclose information on fraud committed by management or senior leaders compared to reporting colleagues. This is certainly not in line with the purpose of the whistleblowing system to reveal fraud and take early prevention of possible fraud. The more time a fraud is exposed, the greater the possibility of losses that will be borne by the organisation. This is an important note for organisations on how to further increase whistleblower trust in internal management so that it is expected to anticipate greater losses for the company. Another weakness from the auditor's side is that not all auditors have sufficient competence to be able to extract information from whistleblowers as widely / deeply as possible, especially by using technology. Based on this, it is certainly interesting in further research to develop the discussion of forensic audit and whistleblowing system, especially in adopting the development of information technology.

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