Detecting Procurement Fraud in the Public Sector

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ABSTRACT

Content
This study provides an in-depth examination of detection mechanisms for procurement fraud in the public sector, identifying common forms of fraud, key indicators, and strategies for mitigation. The research explores the complexities of procurement fraud, including bid rigging, bribery, and embezzlement, and evaluates the effectiveness of various detection techniques.

Purpose
The primary purpose of this study is to guide public sector entities on addressing procurement fraud through proactive monitoring and the adoption of advanced technological detection and governance. The research aims to inform policy development and implementation, enabling public sector organisations to strengthen their anti-fraud measures and protect public resources.

Methods
A structured literature review (SLR) approach was employed, a systematic review of existing literature on procurement fraud detection mechanisms in the public sector. The research involved a comprehensive search and analysis of peer-reviewed articles, identifying key themes, trends, and gaps in the literature.

Findings
The study reveals that procurement fraud is a complex and widespread challenge, requiring a multifaceted approach to detection and prevention. Advanced detection techniques, such as data analytics, e-procurement platforms, and whistleblower mechanisms, are effective in identifying and mitigating fraudulent activities. The research highlights the importance of robust internal controls, digital solutions, and employee education initiatives in strengthening anti-fraud measures.

Managerial Implications

Public sector entities can benefit from implementing robust internal controls, digital solutions, and employee education initiatives to strengthen anti-fraud measures. The study provides guidance for policy development and implementation, highlighting the importance of proactive monitoring and advanced technological detection in addressing procurement fraud. Key recommendations include; implementing data analytics and artificial intelligence to enhance detection capabilities, establishing effective whistleblower mechanisms and protecting whistleblowers, strengthening internal controls and segregation of duties, providing regular training and education for procurement staff, and adopting e-procurement platforms to enhance transparency and accountability.

INTRODUCTION

In most countries, public procurement accounts for a significant share of government spending, serving as a primary mechanism for acquiring goods, services, and works necessary to sustain public service provision (Johari, Faudzi, Hussin, Rosnidah & Musyaffi, 2023:114). A well-structured public procurement system can play a significant role in achieving key policy goals, including environmental protection, driving innovation, creating

jobs, and supporting the growth of small and medium-sized businesses (Khan & Bakar, 2022:1). Procurement processes within the public sector are inherently susceptible to corruption and fraudulent practices reflecting vulnerabilities like those observed in other forms of public expenditure (Santos, Santos, Castro & Carvalho, 2025:1). Procurement fraud constitutes a form of occupational crime, characterised by individuals exploiting their legitimate professional responsibilities, breaching organisational trust, and leveraging privileged access to complex and protracted processes that are inherently vulnerable to manipulation (Smith, 2022:24). Economic crimes in public procurement, particularly fraud and corruption, pose significant risks to the integrity of government operations and the public trust (Al-Ababneh, Fedorchuk, Tymchyshyn, Pishchenko & Hrytsai, 2024:8861).

Public procurement remains highly vulnerable to corrupt practices such as collusion, manipulation, and fraud, positioning it as one of the most critical risk areas for government integrity (Gunasegaran, Basiruddin, & Rizal, 2023:1446). Procurement processes are prone to fraudulent conduct and constitute a major area of corruption risk (Patar, Hidayati & Husnan, 2024:156). The procurement process within the public sector represents a high-risk area for governance, frequently associated with collusion, corruption, manipulation, and fraudulent behaviour (Khan, Nor & Isahak, 2022:27). There is growing global concern on the rising prevalence of procurement-related fraud (Ezeji, 2024:64). Procurement is a multifaceted process that extends beyond the mere acquisition of goods, requiring coordinated efforts among specialised teams to ensure efficiency and compliance (Muteteri & Akumuntu, 2025:933). Public procurement fraud encompasses illicit practices that undermine procedural integrity, resulting in the misappropriation or diversion of public resources (Adebayo, Adenle, Ojeleye & Ayeni, 2024:232). The demand for effective procurement systems has intensified in the era of regional autonomy, as sustainable development increasingly depends on the capacity of regional administrations to plan and implement procurement processes effectively (Mansyuri & Ramadhan, 2024:1129).

Procurement fraud constitutes a serious financial crime within the public sector, undermining accountability, transparency, and the efficient delivery of services (Emmanuel, 2025:1). As a form of economic crime, procurement fraud not only depletes public resources but also compromises institutional integrity, particularly in sectors critical to public welfare such as healthcare (Omata, Gathoni & Musumba, 2024:2255). Classified as an occupational crime, procurement fraud is perpetrated by individuals abusing legitimate responsibilities and exploiting organisational trust, often requiring privileged access to complex and lengthy processes (Smith, 2022:24). Procurement fraud within the public sector poses a substantial threat to the integrity, operational efficiency, and credibility of governmental institutions, and procurement fraud is characterised by deliberate acts of deception intended to manipulate procurement decisions, thereby securing undue advantage or illicit financial gain (Amuzat, 2025:24).

This study reviews the detection of procurement fraud within the public sector. The literature identifies common forms of procurement fraud and their key indicators, including detection strategies, such as data analytics, digital transparency mechanisms, and strengthened internal controls in mitigating fraudulent activities. Ultimately, the research provides guidance for public sector entities on addressing procurement fraud through proactive monitoring and the adoption of advanced technological detection and governance. This study adopts a structured literature review (SLR) approach to systematically examine detection mechanisms for procurement fraud in the public sector. The review employs a rigorous search protocol designed to query multiple scholarly databases independently, ensuring comprehensiveness and replicability (Gilula, 2016:7). The process incorporates predefined keywords, inclusion and exclusion criteria, and standardised search strings to minimise bias and maintain consistency. This methodology facilitates the identification of relevant studies, critical appraisal of their quality, and synthesis of findings to develop an integrated understanding of procurement fraud.

The legal framework governing procurement in South Africa

The Constitution regulates South African public procurement, Section 217(1) of the Constitution Act (108 of 1996), which mandates a fair, equitable, transparent, competitive, and cost-effective system for public procurement. The Public Finance Management Act (PFMA) (Act 1 of 1999) thus reiterates the principle of transparency, fairness, and efficiency being enshrined as the principles upon which accounting authorities operate, requiring accountability for a procurement system built on these same principles. Under the Preferential Procurement Policy Framework Act (Act 5 of 2000) (PPPFA), South African government organs are required to

use a preference point mechanism in procurement to drive participation from individuals and small businesses that belong to historically disadvantaged communities and are also instructed by organs of state when implementing preferential procurement policies and promoting the inclusion of Historically Disadvantaged Individuals (HDIs) and small, medium, and micro enterprises (SMME's). The Prevention and Combating of Corrupt Activities Act (PRECCA), Act 12 of 2004, is a comprehensive law that aims to beef up the fight against corruption in South Africa. Importantly, the Prevention and Combating of Corrupt Activities Act (PRECCA), Act 12 of 2004, serves to actively counteract fraud associated with contracts and procurement through the criminalisation of bribery and other corrupt activities. Sections 12 and 13 outline offenses that enforce accountability and transparency in tender processes, ensuring penalties are imposed for related violations. The Competition Act 89 of 1998 is a piece of legislation in South Africa that is central to competition and prevents anti-competitive practices, such as bid rigging and collusion, which are both prevalent in procurement fraud.

METHODOLOGY

This study employed a structured literature review search to identify public sector fraud detection mechanisms, as employed by Rudman and Bruwer (2016:7). The researcher adhered to a four-step methodology derived from Rudman and Bruwer's (2016:7) framework, as delineated in Table 1.

Table 1: Steps of Structured Literature Review

Step 1	Keyword search	A systematic search was conducted on Google Scholar using carefully selected keywords to identify and review scholarly literature relevant to the research topic, "Detecting procurement fraud in the public sector".
Step 2	Mapping and exclusion	Search results were mapped to the study's purpose, and articles were excluded based on criteria such as non-public sector focus, lack of discussion on detection mechanisms, non-peer-reviewed sources, and non-English language articles.
Step 3	Analysis	The remaining articles were analysed to identify key themes like detection mechanisms, data analytics, auditing, whistleblower policies, and internal controls, and how these were applied to detect procurement fraud in the public sector
Step 4	Synthesis	The findings were consolidated in the prevalent themes, discerning recurring patterns, and highlighting gaps within the literature, thereby delivering a thorough synthesis of existing mechanisms for detecting procurement fraud in the public sector.

Source: Rudman & Bruwer (2016:7).

This research employed a Structured Literature Review (SLR) methodology, following the framework proposed by Rudman and Bruwer (2016:7), to systematically identify and analyse mechanisms for detecting procurement fraud in the public sector. The SLR process comprised four distinct stages:

Step 1: Keyword search

A systematic search was conducted on Google Scholar using carefully selected keywords, including "public sector procurement fraud detection" and "procurement fraud detection mechanisms," to identify relevant scholarly articles. The search employed structured strings such as ("public sector" AND "procurement fraud" AND "detection mechanisms" OR ("procurement fraud detection" AND "public sector"), resulting in an initial pool of pertinent literature. The search yielded 63 articles, which were reviewed and resulted in an initial pool of relevant literature on public sector procurement fraud detection and mechanisms.

Step 2: Mapping and exclusion

The search results were aligned with the study's objectives, and articles were excluded based on predetermined criteria, including a non-public sector focus, absence of discussion on detection mechanisms, lack of peer review,

and non-English language. Applying these criteria led to the exclusion of 16 articles, resulting in a refined pool of 47 relevant studies.

Step 3: Analysis

The remaining articles were systematically analysed to identify specific detention mechanisms such as data analytics, auditing, whistleblower policies, and internal controls, and to examine their practical application in addressing procurement fraud within the public sector. The analysis involved a comprehensive review of each article, with key insights extracted and organised into thematic categories for deeper interpretation.

Step 4: Synthesis

The findings of this study were systematically consolidated to present a comprehensive overview of current practices for detecting fraud in public sector procurement. The research confirms that procurement fraud is a complex and widespread challenge, requiring a multifaceted approach to both detection and prevention. This approach involves a thorough examination of recurring themes, emerging trends, and gaps identified across the literature. The synthesis emphasises the critical role of advanced detection techniques such as data analytics, e-procurement platforms, and whistleblower mechanisms in identifying and mitigating fraudulent activities. Additionally, the review highlights the importance of robust internal controls, digital solutions, and employee education initiatives to strengthen anti-fraud measures. Notably, the analysis reveals gaps in existing research, particularly the need for more empirical studies on detection strategies within the South African context. Overall, this paper provides an in-depth assessment of current knowledge on procurement fraud detection and prevention, identifies areas for future inquiry, and offers guidance for policy development and implementation. By implementing these steps, the study sought to deliver a rigorous and systematic review of public sector procurement fraud detection mechanisms, thereby enhancing the existing body of knowledge and providing valuable insights to guide future research and practical applications.

LITERATURE REVIEW

Procurement fraud is a major threat to institutions, businesses, and governments around the world, causing serious monetary loss, damage to reputation, loss of trust, eroding relationships between supplier and retailer which can come with legal risks (Ezeji, 2024:64). Procurement fraud encompasses a broad spectrum of criminal acts from rigging the bidding process before the contract award phase to fraudulent invoicing after the contract award (Johari, *et al*, 2023:114), thus it is a complex problem. Perpetrators may act by manipulating contract awards, invoice payments, and bid processes via collusion between vendors (Ezeji, 2024:64). Bribery can occur at multiple stages of public procurement for construction services, including bribes to secure contracts, influence project design, manipulate tender outcomes, or falsely approve work, involving various officials and stakeholders in the process (Lukhele, Botha & Mbanga, 2022:53).

Bid rigging is when officials work with suppliers to rig procurement outcomes, eliminating fair competition and inflating costs, and bid rigging impacts organisational integrity, encourages corrupt public-private partnerships, and undermines the commitment of the public sector to fairness and accountability (Adenodi, Okenigbeme & Eneh, 2025:138). Public procurement is susceptible to corruption, which has led to increased scrutiny of government spending (Johari *et al*, 2023:114). Procurement fraud refers to the dishonest and illegal activities of the involved entities during the procurement transactions, compromising the procurement process integrity, leading to monetary losses to the purchasing organisation and damaging the public interest (Ifejika, 2024:86). Procurement fraud, including conflict of interest, bid rigging, and product substitution, can damage an organisation's reputation, emphasising the need to recognise red flags and warning signs, especially when close supplier ties and shared confidential information exist (Ezeji, 2024:64).

Characterising common procurement fraud scams, red flags, and measures to investigate suspicious procurement is important. These schemes can be organised into categories, listed in Table 2, and described in the next sections.

Table 2: Types of Procurement Fraud Schemes in the Public Sector

Falsification of procurement documents	Submitting forged documents during government contracting remains one of the most prevalent forms of public procurement fraud committed by contractors and vendors (Ifejika, 2024:92).
Inflation of contract prices	Signs of procurement fraud include price inflation, bid rigging, approving overpriced invoices, and setting up fake companies or supplier accounts, and these tactics let fraudsters profit at the organisation's expense and can result in overpaying for goods and services due to a lack of competitive bidding (Muteteri & Akumuntu, 2025:938).
Shell companies bidding and winning contracts.	In the context of procurement, such entities may submit fictitious bids to create an illusion of competition and artificially influence procurement outcomes (Santos *et al*, 2025:15).
Embezzlement through fictitious projects	Procurement fraud happens at the hands of a number of government departments and agencies that exaggerate the budgets to generate fictitious projects, which then allow the individuals to steal the funds for non-existent initiatives (Ifejika, 2024:102).
Bribes and kickbacks	Bribery continues in the procurement space because people and organisations turn on each other for personal gain, which is reflected in the existence of undocumented additional fees or incentives attached to procurement contracts, plus favoritism related to special companies or individuals when formulating policies and contracts (Johari *et al*, 2023:114).
Overpricing	Overpricing entails the existence of a discrepancy between the anticipated value of the contract and the actual cost, possibly reflecting corrupt activities, ineffectiveness, or poor management (Santos *et al*, 2025:15).

(Sources: Ifejika, 2024:92-102, Johari *et al*, 2023:114, Muteteri & Akumuntu, 2025:938 and Santos *et al*, 2025:15).

Red flags in the procurement cycle

In relation to public procurement, anomalies signify questionable practices and are correlated with certain contractual attributes, termed red flags, which serve as indicators of possible fraudulent activity (Potin, Figueiredo, Labatut & Largeron, 2023:2). The procurement lifecycle is vulnerable to various forms of fraud and corruption, with distinct risks at each stage, making it essential to understand these risks and identify red flags for effective prevention (Aotearoa, 2025:8). Red flags can be defined as anomalies or abnormal conditions that usually act as signals of fraud occurrence, and in fraud detection processes, red flags become one method to detect fraudulent conditions (Zakaria & Setyahuni, 2023:84). Signs that are unusual and come in the environment or attitude that identify fraud are a sign of red flags and mean early warning or an early warning of an alert of possible indications of fraud (Rubiyanty, Restianto & Rokhayati, 2024:327). The primary objective of anomaly detection is to identify behaviours that deviate substantially from anticipated norms or standards (Potin *et al*, 2023:3). Red flags often signal potential fraud, triggering auditors to perform additional procedures to verify and confirm the situation. (Rubiyanty *et al*, 2024:327).

Red flags, on the other hand, can be categorised into five groups: bidder relationships, firms, contracts, procurement notices, and tenders (Santos, *et al*, 2025:19). Bribery persists as a challenge in public procurement because individuals and agencies compromise their duties for personal benefit, and this manifests through undisclosed supplementary charges or inducements in public transactions, as well as preferential treatment accorded to specific firms or persons during policy and contract formulation (Johari *et al*, 2023:114). Contract price modifications during the procurement process and the submissions of single-bid responses to a call for tenders are considered as indicators of possible irregularities, classified as red flags (Potin *et al*, 2023:2).

Methods used for detecting procurement fraud

Procurement fraud is a hidden offence very typical of white-collar crimes, and many of its perpetrators go unnoticed by their victims until long after the fact, and since such incidents are conducted in close quarters, detection and prevention are very difficult for those in business (Smith, 2022:65). The detection of fraud and corruption in public procurement has been an ongoing worldwide problem in recent times, and due to the number of public services and the cost of money associated with public procurement, any type of corrupt practice should be detected and stopped (Modrusan *et al*, 2021:7). Fraud detection is important as Adelakun, Onwubuariri, Adeniran & Ntiakoh (2024:980) have indicated, because good fraud detection will protect financial reporting integrity – it is required for stakeholders to decide whether the organisation is compliant with the financial statement, protect organisational assets, reduce the financial losses, and robust detection mechanisms also enhance credibility, foster trust between stakeholders and companies, and assure regulatory compliance, so reducing legal risk (Adelakun *et al*, 2024:980).

Internal controls

Internal control refers to a comprehensive framework of rules, regulations, policies, and activities implemented within an organisation to identify and mitigate operational irregularities, including misappropriation of funds, fraudulent activities, and inaccurate record-keeping (Opaleye & Adelugba, 2024:25). Strong internal controls and good corporate governance are essential for an organisation's success, serving as its foundation and guiding force. (Ugwu & Ochuba, 2021:64).

Effective internal controls are crucial for organisations to ensure their contract management processes are transparent, accountable, and integrity-driven, ultimately supporting reliable procurement actions (Rendon & Rendon, 2022:1303). The board of directors and audit committee are responsible for ensuring effective internal controls, guiding management, and overseeing internal and external auditors to drive organisational efficiency (Ugwu & Ochuba, 2021:64). Internal controls play a crucial role in detecting and preventing public procurement fraud, with effective detection often serving as a potent prevention tool (Smith, 2022:66). The internal control system plays a pivotal role in the development of policies in institutions across the world, which can also be a very vital tool in the prevention of fraudulent activities in financial institutions in the economy (Fabiyi, Aregbesola, Wright, Omojola & Kolawole, 2025:179). Effective internal controls are key to preventing fraud, promoting efficiency, and detecting errors or irregularities early, ultimately safeguarding assets and ensuring compliance with policies and procedures (Ugwu & Ochuba, 2021:65).

Internal control mechanisms are crucial for effective public procurement, providing reasonable assurance of operational, reporting, and compliance objectives (Gunasegaran *et al*, 2023:1450). A strong internal control system is vital for organisational integrity, preventing fraud and promoting transparency and accountability, which are essential for good governance (Kurniawan, Haliah & Kusumawati, 2024:5260-5261). The function of internal control in an organisation is essential for an effective governance architecture to help organisations accomplish their goals (Flowerastia, Trisnawati, & Budiono, 2021:236). Effective internal control is an important factor for the reduction of fraud in the organisation, which limits opportunities of deviant behavior; therefore, it is essential for the integrity of the organisation (Sutoyo, Nugroho & Windyastuti, 2023:2331). Good governance and internal control have a significant positive effect on preventing fraud in the procurement of state-owned goods and services (Dewata, Farah, Jauhari & Sari, 2021:153).

The internal control framework comprises five interrelated components: control environment, control activities, risk assessment, information and communication systems, and monitoring processes (Ugwu & Ichuba, 2021:65, and Opaleye & Adelugba, 2024:25-26), as depicted in Table 3 below.

Table 3: Internal control framework

Control environment	The control environment refers to the organisational atmosphere established by management, influencing employee behaviour and guiding actions towards achieving organisational objectives. It has a profound impact on business effectiveness, particularly in attaining organisational goals (Opaleye & Adelugba, 2024:25). The control environment encompasses an organisation's integrity, ethical values, and governance

	structure, including management's approach to assigning authority, developing competent personnel, and promoting accountability through performance measures and incentives (Ugwu & Ichuba, 2021:67).
Control activities	Control activities are policies and procedures ensuring organisational objectives are met, involving segregation of duties, authorisation, documentation, and asset protection, with internal checks and balances, approvals, and verification at all levels (Ugwu & Ichuba, 2021:67-68). Organisations should establish and maintain an effective internal control system that fosters a culture of discipline, integrity, and ethical behaviour among those responsible for managing financial resources (Opaleye & Adelugba, 2024:25).
Risk assessment	Risk assessment, a key component of an internal control system (ICS), involves identifying and analysing risks that could impact organisational objectives, evaluating their likelihood and potential impact (Opaleye & Adelugba, 2024:25).
Information and Communication	Information and communication, key elements of an internal control system, involve identifying, capturing, and communicating relevant information to support employee duties and responsibilities, fostering working relationships, reducing fraudulent concealment, and detecting potential fraud (Opaleye & Adelugba, 2024:25).
Monitoring processes	Monitoring, a key component of an internal control system, evaluates the effectiveness and quality of an organisation's internal control framework, assessing its design, execution, and operation. It ensures all control components function as intended, and can be continuous, separate, or combined (Opaleye & Adelugba, 2024:26). Management uses monitoring activities to ensure controls operate effectively and are adapted to changing risks, often through internal audit, to detect breaches and ensure compliance via continuous monitoring, intermittent evaluation, or both (Ugwu & Ichuba, 2021:68).

(Sources: Opaleya and Adelugba (2024:25-26) & Ugwu and Ichuba (2021:67-68).

An effective internal control system (ICS) significantly impacts procurement fraud prevention and financial performance, ensuring correct transaction processing, preventing waste, misuse, and theft. Implementing and maintaining an ICS is recommended for organisations to prevent procurement fraud and improve financial performance (Opaleye & Adelugba, 2024:35). Effective internal control activities mitigate or eliminate fraudulent activities by implementing robust security measures, including physical asset protection and restricted access to computer databases, thereby preventing theft and unauthorised transactions (Ugwu & Ichuba, 2021:73). The implementation of internal controls establishes a system of oversight, yielding significant benefits, but potentially posing implementation challenges and costs (Smith, 2022:66). The internal control systems implemented in government departments can prevent the prevalence of fraudulent procurement of goods and services by implementing the gentlest control so that the opportunity to commit fraud can be minimized (Primastiwi, Wardani & Hasinah, 2021:271).

Audits

Internal auditing is a pivotal function that boosts organisational performance by offering impartial and objective assessments, and in addition to examining the process by which management, control, and governance are undertaken, that is essential to ensure organisational objectives are met, it carries out an overall process methodically and consistently (Handoyo & Bayunitri, 2021:47). Effective internal audits can assist in identifying anomalies, revealing errors or a possible illegal act, and offer data-driven measures for relief (Smith, 2022:66-67). Conducting internal audits is essential for safeguarding procurement processes, ensuring their integrity, effectiveness, and accountability, and promoting transparency while also uncovering irregularities such as inflated budgets and bid manipulation, thereby reducing opportunities for corruption (Yanuarisa, Irianto & Djamhuri, 2025:15).

Building internal audit capabilities can help organisations to reduce fraud and improve the value of public procurement (Handoyo & Bayunitri, 2021:45; Yanuarisa *et al*, 2025:16). Internal audits offer numerous advantages that strengthen organisational governance and performance, and the key benefits include improved risk management and enhanced control systems, enabling organisations to respond proactively to potential threats (Handoyo & Bayunitri, 2021:48). Combining internal audits with risk management can boost the effectiveness

of public procurement, making it more efficient and transparent (Yanuarisa *et al*, 2025:16). Improved adherence to policies and procedures is also a major benefit, which allows an organisation to remain in compliance with regulations and standards (Handoyo & Bayunitri, 2021:45). Institutional reforms and a strong organisational culture are crucial for internal audit to effectively support public procurement governance, requiring a commitment to addressing operational and institutional challenges (Yanuarisa *et al*, 2025:16).

Focusing on internal audit and risk management would allow organisations to improve both governance and procurement practices and create value and integrity in their operations Handoyo & Bayunitri, 2021:47). Computer-Assisted Audit Techniques (CAATs) are highly effective in auditing processes targeted towards the discovery and prevention of procurement fraud (Samagaio & Diogo, 2022:4). Surprise audits can boost procurement fraud detection and engaging professional bodies such as the Association of Certified Fraud Examiners (ACFE), the Institute of Internal Auditors (IIA), and the National Institute of Governmental Purchasing (NIGP) provides organisations with specialised expertise for identifying risks and refining processes, thereby enhancing audit effectiveness (Smith, 2022:70).

Whistleblower channels

Whistleblowing system is also one of the major components of the internal control mechanism as it serves in preventing irregularities and fraudulent activities, and the effective governance practices are utilised (Zahra, Abdullah, Din, Fadli, Besar & Ali, 2024:304). The presence of whistleblowers has a positive impact on detecting procurement fraud, indicating that more whistleblowers can lead to more effective fraud detection (Syamsuddin, Rahmawati, Indrijawati & Bandang, 2023:13). The whistleblowing mechanism constitutes a formal reporting framework designed to enable both internal and external stakeholders to disclose suspected breaches of compliance or irregularities within organisational processes (Maulida & Bayunitri, 2021:277). A well-functioning whistleblower system provides a safe and anonymous environment for reporting suspicious activities, promoting transparency, accountability, honesty, and encourages workers and the public to report fraud, breaking the silence culture and minimising corruption and abuse (Maulida & Bayunitri, 2021:281).

An effective whistleblower system requires key elements, including clear reporting and investigation procedures, protection from retaliation, anonymous communication channels, timely investigations, and actions to recover losses, and this helps prevent irregularities and fraudulent activity (Maulida & Bayunitri, 2021:277). A whistleblowing system can help detect and prevent fraud in government procurement, making investigative audits more effective in identifying and addressing irregularities (Zahra *et al*, 2024:308). Governments can enhance fraud detection and promote transparency in procurement by leveraging competence, whistleblowers, probity audits, and emotional intelligence, which collectively support good governance and accountable procurement practices (Syamsuddin *et al*, 2023:19). Organisations implementing multiple reporting mechanisms were found to detect fraud earlier, reducing losses compared to those that did not (Smith, 2022:71). The whistleblowing system has a positive effect on the prevention of fraudulent procurement of goods and services is supported., and it can be concluded that whistleblowing has a positive effect or contributes to the prevention of fraudulent procurement of goods and services (Primastiwi et al, 2021:271).

Data and Technology Methods

Fraud detection aims to identify unethical behaviours globally. Big data drives innovation in business and accounting. Companies that do not adopt data analytics risk falling behind and facing financial consequences (Johari *et a*l, 2022:9). As fraudsters employ more advanced tactics, financial institutions and regulatory bodies must enhance their capabilities through innovative and data-driven approaches. The evolution of forensic auditing now integrates technology-driven methodologies, including big data analytics, artificial intelligence (AI), and blockchain, to improve fraud detection efficiency and accuracy (Elumilade, Ogundeji, Achumie, Omokhoa & Omowole, 2022:55). In today's digital landscape, forensic accountants require expertise in accounting, auditing, computer tech, data analysis, and financial investigation laws to stay effective (Daraojimba, Farayola, Olatoye, Mhlongo & Oke, 2023:343).

Technological advancements have established novel benchmarks and innovative methods for data collection and analysis, and the internet's interconnectedness and continuous data exchange across systems have generated

extensive datasets ripe for analysis (Balios, Kotsilaras, Eriotis, & Vasiliou, 2020:213). The integration of artificial intelligence (AI) and data analytics presents a transformative opportunity to enhance transparency, accountability, and efficiency in public procurement (Ayobami, Mike-Olisa, Ogeawuchi, Abayomi & Agboola, 2024:835). Traditional manual methods fall short in detecting sophisticated fraud, necessitating the adoption of advanced technologies like Artificial Intelligence (AI), big data, and blockchain to boost detection effectiveness in the digital era (Azzahra, 2025:1). The next paragraphs will explore the role of Data Analytics, AI, and Blockchain in detecting and preventing procurement fraud.

Big Data Analytics

Procurement fraud detection and prevention aim to eradicate unethical conduct worldwide, and big data analytics has emerged as a critical tool in business and accounting; big data is increasingly integral to assurance processes, enhancing fraud detection and prevention capabilities (Rosnidah *et al*, 2022:9). The growing digital economy underscores the importance of utilising digital tools, demonstrating data analytics' potential to combat corruption and drive effective responses (Chystiakova, Podliehaiev, Khoronovskyi, Sakur, & Kubariev, 2025:117). Big Data can supplement auditors' work, providing additional support when traditional audit evidence is lacking, thereby enhancing sufficiency (Balios *et a*l, 2020:214).

Data analytics can effectively support anticorruption efforts in two key areas: investigating contracts, organisations, or markets, and informing policy reform and evaluation (Poltoratskaia & Fazekas, 2024:52). Big data analytics is key in fraud detection, processing large volumes of financial data to identify suspicious activities, predict fraud, and mitigate risks (Elumilade *et al*, 2022:58). Data analytics plays a vital role in uncovering corruption links, making it essential in today's legal and technological landscape (Chystiakova *et al*, 2025:117).

Data analytics and Business Intelligence enable organisations to identify procurement fraud, anticipate anomalies, and assess the effectiveness of processes, ultimately leading to an increase in case generation, with costs reduced. However, this requires consideration of the data volume, training, and safeguards (Smith, 2022:72-73). Rosnidah et al (2022:9) highlight that big data enhances organisational capabilities in three keyways, as illustrated in Table 3 below,

Table 4: Three Keyways Big Data Enhances Organisational Capabilities

Comprehensive data review:	Analysing entire datasets instead of samples.
Risk assessment:	Highlighting any unusual or evolving trends, possibly compared to industry peers, to facilitate further research.
Audit evidence generation:	Comprehensive reviews of a company’s general ledger to create compelling audit evidence

(Source Rosnidah *et al* (2022:9).

Big Data analytics is a game-changer for investigating corruption offenses, and it helps identify complex financial patterns, detect anomalies, and predict potential issues, uncovering hidden links and irregularities that traditional methods might miss by analysing vast amounts of data, including financial transactions and communication records (Chystiakova, *et a*l, 2025:138). Data analytics is key in forensic auditing, helping uncover corporate financial fraud, and auditors use it to apply statistical modelling and detect anomalies, identifying revenue overstatements and irregular expense classifications (Elumilade *et al*, 2022:60). Data analytics plays a vital role in uncovering corruption links, making it essential in today's legal and technological landscape (Chystiakova *et al*, 2025:117). In knowledge management, data analytics can add value by transforming data into information, information into knowledge, and knowledge into wisdom - a hierarchical progression (Kamal, 2022:186). Data analytics in corruption investigations must follow legal principles for data handling, balancing detection capabilities with privacy rights, and only infringing on rights as necessary for law enforcement (Chystiakova *et al*, 2025:122-123).

Artificial intelligence (AI)

The term "Artificial Intelligence (AI)" gets everyone in the AI community buzzing, from experts to enthusiasts,

and the idea of a human-made machine that can think, learn, and decide for itself is mind-blowing, which is why it's been a popular theme in culture for ages (Hasan, 2022:441). AI is a revolutionary technological tool that enhances the ability to detect and prevent fraud by improving efficiency and effectiveness (Ezeji, 2024:63). AI is a computer system that mimics human brain functions, like learning, reasoning, adapting, and making decisions, enabling it to handle complex tasks that typically require human judgment (Hasan, 2022:444). Global public procurement systems struggle with inefficiency, corruption, and opacity, but AI offers a transformative solution to boost transparency, streamline processes, and curb fraud, potentially restoring public trust and optimising taxpayer funds (Ayibam, 2025:54).

AI's integration into public procurement systems can revolutionise and overcome entrenched issues of inefficiency, corruption, and lack of transparency (Ayibam, 2025:59). Implementing AI-based procurement software improves operations, automates tasks, and gives control over purchases and invoice features (Ezeji, 2024:67-68). AI shows exceptional strength in fraud detection, outdoing conventional approaches (Ayibam, 2025:59). AI detects patterns, adapts, and automates tasks, freeing humans from error-prone procurement tasks to focus on high-attention areas, and is used in procurement software to streamline processes (Ezeji, 2024:68). AI technology provides potent tools to boost efficiency, detect fraud, and enhance decision-making in public procurement, offering substantial public value amid tight budgets and intricate purchasing requirements (Ayibam, 2025:66).

AI's capacity to rapidly process vast data, identify patterns, and adapt to evolving fraud techniques enables efficient detection, while its automation capabilities complement human efforts, reduce errors, and free up resources for complex investigations, ultimately leading to more robust detection systems (Mohammed & Rahman, 2024:473-474). AI in procurement management boosts analytics, uncovers insights, and improves operations, identifies savings, generates revenue, strengthens vendor relationships, and automates complex tasks, speeds up processing, and uncovers hidden business knowledge (Ezeji, 2024:67).

AI-driven fraud detection boosts accuracy and automates tasks, enabling organisations to proactively respond to threats and prevent fraud by identifying anomalies and forecasting suspicious activities in real-time, surpassing human capabilities (Ezeji, 2024:70).AI's success in public procurement hinges on promoting transparency, fairness, and accountability, bolstering public trust and reinforcing the state-citizen social contract, rather than solely focusing on efficiency gains (Ayibam, 2025:66). According to Bansal and Jain (2023:2788-2789), AI can significantly enhance public procurement systems, and the techniques it can do so are outlined in the table below

Table 5: Artificial Intelligence's Role in Enhancing Public Procurement Functions

Automation and optimisation	AI automates repetitive procurement tasks like data entry and document verification, streamlining workflow, reducing errors, and freeing up personnel time.
Data analysis and decision support	AI analyses procurement data to uncover patterns and trends, empowering professionals with informed decision-making, cost savings, supplier evaluation, and demand forecasting, with AI-driven decision support systems offering real-time insights and recommendations.
Supplier selection and evaluation	AI evaluates suppliers based on criteria like quality, delivery, and compliance, identifying top performers and mitigating risks associated with underperforming suppliers.
Fraud detection and risk management	AI identifies irregularities and anomalies in procurement, detecting potential fraud and corruption by analysing patterns and flagging suspicious activity, enabling early risk mitigation.
Contract management	AI-driven contract management systems track compliance, monitor performance, and automate notifications, streamlining contract administration and ensuring effective lifecycle management.
Predictive analytics	AI leverages predictive analytics to forecast demand, optimise inventory, and anticipate procurement needs, enabling proactive planning and cost-effective procurement through data-driven insights.

Increased transparency and accountability	AI enhances government procurement transparency by providing auditable tracking, promoting accountability, reducing corruption risk, and fostering trust in public procurement systems.
Market Intelligence and Strategic Sourcing	AI-driven tools gather and analyse market data, providing public procurement officials with real-time insights to inform strategies, identify suppliers, and negotiate terms, while suggesting alternative options based on cost, availability, and quality.

Source: Bansal and Jain (2023:2788-2789).

Several types of AI and emerging technologies can effectively combat corruption and procurement fraud, including machine learning, natural language processing, and blockchain technology, which will be explored in the following sections.

Machine Learning (ML)

Machine Learning (ML) is a subset of artificial intelligence (AI) and computer science that leverages data and algorithms to mimic human learning, continuously enhancing its accuracy over time (IBM Cloud Education, 2020). Machine learning, a subset of AI, discovers patterns in data using statistical methods, differing from explicit task specification, and is often computationally intensive and data-driven (Caldwell, Andrews, Tanay, & Griffin, 2020:3).

The utilisation of powerful machine learning models in artificial intelligence offers novel prospects for the identification of fraudulent activities (Ezeji, 2024:63). AI systems utilising machine learning algorithms promote a fair and trustworthy procurement process by minimizing bias, ensuring objective bid evaluation, and fostering a level playing field for suppliers, ultimately building stakeholder trust (Bansal & Jain, 2023:2788). In procurement, AI can leverage machine learning to classify and interpret massive transactional data, making sense of huge datasets (Ezeji, 2024:68). ML algorithms can identify unusual patterns, flag suspicious transactions, and learn from new fraud trends, enhancing their detection capabilities over time (Elumilade *et al*, 2022:56). Machine learning algorithms detect fraud by analysing past cases, identifying patterns, and creating models that recognise these patterns in future data, enabling effective detection (Ezeji, 2024:69).

Natural Language Processing (NLP)

Natural language processing (NLP) is a branch of AI that enables computers to understand text and spoken language similarly to humans (IBM Cloud Education, 2020). Natural Language Processing (NLP), a subfield of AI, uses supervised learning to transform human-machine interaction, enabling machines to perform tasks like image recognition, decision-making, and language translation (Ezeji, 2024:65). NLP techniques enable AI systems to interpret unstructured data like procurement documents, emails, and user requests, enhancing communication between procurement officials and users, and boosting the overall user experience (Guida *et al*, 2023:2789). NLP is a vital AI capability for real-time fraud detection, analysing textual data like contracts and emails to identify discrepancies and suspicious patterns, enabling swift action against potential fraud (Ande, Adisa, Odunsi & Odeniran, 2025:762).

NLP capability holds significant promise for public procurement, facilitating advanced demand analysis, strategic supply chain management, and detailed spending insights, while also enabling more natural human-AI interaction through voice and text interfaces, and leveraging automated tools (Guida *et al*, 2023:2789). Natural language processing is another critical AI capability used in real-time fraud detection, especially when dealing with textual data such as contracts, emails, supplier communications, and regulatory documents (Ande *et al*, 2025:765).

Blockchain Technology

Blockchain technology functions as a decentralised and transparent digital ledger system in which transactions are securely recorded and validated by multiple independent nodes, thereby ensuring immutability and significantly reducing the risk of data manipulation (Bester, 2025:442). Blockchain refers to a distributed ledger comprising a sequential chain of confirmed blocks linked using cryptography (Jia, Xu, Han, Zhang, Zhang &

Chen, 2023:1492). Blockchain technology possesses several features that make it an attractive solution for enhancing transparency and accountability (Bester, 2025:446). Blockchain tech uses cryptography, smart contracts, and a distributed ledger to create a shared, time-stamped record of transactions, with all network members having identical ledger copies (Dowelani, Okoro, & Olaleye, 2022:2). Blockchains are integrated digital systems that need careful design and management to become effective decision-support tools for industry and government (Balan, Alboaie, Kourtit, & Nijkamp, 2020:10).

Advanced technologies, such as blockchain and robotic process automation, are transforming procurement by enhancing transparency, security, and efficiency. Blockchain's decentralised ledger system ensures data integrity and enables automated smart contracts (Uzozie, Onaghinor, Esan, Osho, & Etukudoh, 2023:1152). Blockchain is transforming procurement with its immutable, decentralised platform that secures transactions and ensures data integrity (Uzozie *et al*, 2023:1152). Blockchain technology enhances public procurement transparency, security, and traceability through an immutable record of transactions, reducing fraud and corruption risks (Bansal & Jain, 2023:2791). Blockchain's decentralisation reduces fraud, bribery, and corruption risks, while its immutable record provides a clear audit trail for issue investigation and resolution (Uzozie *et al*, 2023:1154). Blockchain technology, a trust- and transparency-building system, uses decentralised distributed ledgers to store data, making it ideal for procurement processes by preventing single-party data alteration (Adobor & Yawson, 2023:359). Blockchain technology promotes supplier transparency and fraud prevention through a secure, immutable transaction record, enabling tracking, verification, and compliance with contractual terms (Uzozie *et al*, 2023:1154).

According to Balan *et al* (2020:11), using blockchain in urban procurement and tendering has several potential benefits, including; reduced corruption by cutting out intermediaries, which are often the source of bribery and graft, immutable data prevents fraud and ensures tender conditions can't be altered, transparency prevents bid rigging and collusion, making it hard for competitors to manipulate the process. These features make blockchain a powerful tool for increasing transparency and fairness in public procurement (Balan *et al*, 2020:11). Blockchain's immutability secures procurement records, while smart contracts automate agreement execution, reducing errors and disputes by executing when conditions are met, ensuring reliable supplier relationships (Uzozie *et al*, 2023:1153). Blockchain technology prevents duplicate transactions by permanently recording and verifying transactions, eliminating the risk of double spending (Elumilade, Ogundeji, Achumie, Omokhoa & Omowole, 2021:58). Blockchain technology can effectively counter fraudulent activities in public tendering processes (Balan *et al*, 2020:9). Blockchain technology provides a secure, tamper-proof solution for public procurement records, leveraging transparency, immutability, and decentralisation to prevent fraud and ensure transaction integrity (Batista, 2024:168). Blockchain technology streamlines public procurement by digitally approving documents, storing transactions securely, and enabling automatic execution of complex transactions via smart contracts, thereby reducing processing time and increasing transparency (Mircea, Stoica & Ghilic-Micu, 2022:63359).

Detectable procurement risk patterns

A Decision Support System (DSS) detects potential procurement fraud by analysing contract data, identifying risk patterns, and evaluating variables such as blacklisting, enabling proactive measures to prevent fraud and more effective risk management (Velasco, Carpanese, Interian, Octavio, Neto & Ribeiro, 2021:33). This section outlines the DSS capacity to identify complex collusion risk patterns involving multiple companies and elucidates the attendant risks to public institutions responsible for managing bidding and spending processes (Velasco *et al*, 2021:34-35).

Table 6: Collusion Risk pattern and related risk.

Risk Pattern	Related Risk
Identical bids	Identical bids from companies A and B in multiple procurement processes suggest potential collusion, indicating pre-agreed arrangements that compromise fair competition.
Concerted bids	When two companies consistently submit bids with prices in a fixed ratio or with a constant difference, it may indicate collusion, suggesting they're coordinating their bids rather than competing fairly.

Top losers	A company that frequently bids on projects but rarely wins might be participating in a bid-running scheme, where it colludes with the winning company to create an illusion of competition.
Common partners	Shared partnerships between bidding companies can raise suspicions of collusion, as the common partner may be influencing bid outcomes to favour a particular company.
Common addresses	Shared addresses between bidding companies can indicate a connection that may compromise fair competition, potentially suggesting collusion or anti-competitive practices.
Common economic groups	Companies with a common parent company bidding on the same project can create a conflict of interest, as the parent company could influence the outcome, effectively reducing competition.
Common registration data	Shared IP addresses between online bidders can indicate a connection, potentially compromising fair competition and suggesting collusion or coordinated bidding practices.

(Source: Velasco *et al*, 2021:34-35).

Prevention methods

Fraud prevention involves creating an enhanced controlled environment that promotes ethical values and fair transactions, reducing losses due to fraud (Ferina, Mulyani, Afia & Poulus, 2020:326). To prevent fraud, companies require robust internal control systems that combine human resources and information technology, designed to help achieve specific organisational goals (Astuti, 2024:56). To prevent procurement fraud, organisations should foster a culture of integrity and implement robust measures, including clear policies, segregation of duties, staff rotation, forensic audits, and ethics training, ultimately promoting a culture where integrity is everyone's responsibility and earning stakeholder trust (Boakye-Sarkodie, 2025:2). Inadequate segregation of procurement roles undermines organisational integrity, but assigning separate tasks to different officials can mitigate fraud risks and prevent collusion (Adenodi *et al*, 2025:138). Segregation of duties ensures proper command of procurement activities and transactional roles are streamlined, preventing individuals from having too much control, and rotational assignments can help reduce opportunities for fraud (Ong'are & Njeru, 2022:959). Effective fraud prevention involves implementing a mix of measures, including prevention, detection, and investigation (Astuti, 2024:56).

Good governance and internal control both significantly contribute to preventing fraud in procurement processes, promoting transparency and accountability (Dewata *et al*, 2021:152). Practitioners apply the principles of Good Governance to avoid fraudulent procurement, ensuring more accurate and transparent acquisition of goods and services (Dewata *et al*, 2021:153). Organisational commitment is crucial in preventing procurement fraud, as it promotes a culture of accountability and reduces deviant behaviour (Herdiyanto & Samukri, 2025:2312-2313). A strong culture of integrity starts with leadership, where management leads by example, promotes honesty, and holds everyone accountable, creating an environment where employees feel empowered to make ethical decisions (Boakye-Sarkodie, 2025:2). Organisational culture sets the tone for a fraud-free procurement process, fostering honesty, transparency, and accountability among employees and stakeholders (Mansyuri & Ramadhan, 2024:1137). Good procurement accountability removes the opportunities for fraud, reduces contractual issues and actions of moral hazard (Adi & Rohman, 2023:239), and is part of the primary deterrent against fraud.

Fraud awareness and ethics training

Fraud awareness and ethics training can prevent procurement fraud by enabling employees to identify misconduct, emphasising vigilance, and providing reporting guidelines for suspected fraud (Smith, 2022:73-74). Ethical employees, demonstrating integrity, responsibility, and honesty, are key to preventing procurement fraud, as they adhere to policies and report suspicious behavior, prioritising public interest (Mansyuri & Ramadhan, 2024:1137-1138). Transparency and public notice are key to sound procurement procedures, enabling stakeholders to scrutinize officials' performance, track decisions, and access information like bidding procedures and contract notices, promoting accountability and understanding of government spending (Gunasegaran *et a*l, 2023:1449). Organization for Economic Co-Operation and Development (OECD) countries provide specialized

training for procurement officials to uphold ethical standards, promoting professionalism and integrity in public procurement, which involves values like truth, honesty, and equality, and requires avoiding conflicts of interest and following anti-corruption methods (Gunasegaran *et al*, 2023:1449).

E-procurement

Electronic procurement (e-procurement) is the procurement of goods/services carried out using information technology and electronic transactions in accordance with applicable laws and regulations (Mansyuri & Ramadhan, 2024:1129). The implementation of e-procurement has a positive effect on preventing fraud the procurement of goods and services (Adi & Rohman, 2023:241). (Adi & Rohman, 2023:240-241). E-procurement has been a good way to minimise the possibility of fraud, and it increases government management efficiency, prevents conflict of interest, and minimises financial fraud by limiting face-to-face interaction and fostering transparency (Herdiyanto & Samukri, 2025:2312). E-procurement promotes transparency, accountability, and efficiency, while fostering healthy competition and supporting audit processes (Mansyuri & Ramadhan, 2024:1129). Organisations are adopting e-procurement due to its benefits over traditional paper-based procurement, leading to increased usage (Kumar & Ganguly, 2021:41).

An integrated electronic system for procurement makes it possible to monitor procurement processes in real-time, which leads to enhanced responsibility and mitigates corruption hazards; and technology makes it possible to automate the bid evaluation and contract management processes and reduce the interaction that might take place with the procurement processes, which reduces the chance that individuals attempt to manipulate processes; the automation of systems records all of the final decisions which is useful for the automatic audits and data analysis of the data and can help to detect fraudulent patterns, such as frequent winning of tenders or suspicious changes of contracts (Mansyuri & Ramadhan, 2024:1135). E-procurement has a positive effect on the prevention of fraud in the procurement of goods and services (Primastiwi *et al*, 2021:270). Technology plays a huge role in preventing procurement fraud by increasing transparency and accountability through e-procurement systems, which allow real-time monitoring and reduce manual interactions, making it harder for corruption to slip through the cracks (Mansyuri & Ramadhan, 2024:1136).

RESULTS

The study reveals that procurement fraud is a complex and widespread challenge, requiring a multifaceted approach to detection and prevention. The literature review highlights the importance of advanced detection techniques, such as data analytics, e-procurement platforms, and whistleblower mechanisms, in identifying and mitigating fraudulent activities. The study confirms that procurement fraud is a significant threat to public sector organisations, resulting in financial losses and reputational damage (Ezeji, 2024:64; Johari *et al*, 2023:114). The research highlights the importance of robust internal controls, digital solutions, and employee education initiatives in strengthening anti-fraud measures (Opaleye & Adelugba, 2024:25; Ugwu & Ichuba, 2021:67). The study also reveals that data analytics, artificial intelligence, and blockchain technology are effective in detecting and preventing procurement fraud (Rosnidah et al, 2022:9; Elumilade et al, 2022:55; and Balan et al, 2020:10).

Public sector managers can use the results to improve procurement processes by implementing advanced detection techniques, such as data analytics and artificial intelligence. Managers can strengthen internal controls by segregating duties, implementing e-procurement platforms, and providing regular training and education for procurement staff. The study highlights the importance of establishing effective whistleblower mechanisms and protecting whistleblowers to encourage reporting of suspicious activities. Managers can use the results to inform policy development and implementation, enhancing transparency and accountability in procurement processes.

Implement data analytics and artificial intelligence to enhance detection capabilities. Establish effective whistleblower mechanisms and protect whistleblowers. Strengthen internal controls by segregating duties and implementing e-procurement platforms. Provide regular training and education for procurement staff. Adopt e-procurement platforms to enhance transparency and accountability. By implementing these recommendations, public sector managers can improve procurement processes, reduce the risk of procurement fraud, and protect public resources.

CONCLUSION

The pervasive nature of procurement fraud poses a significant threat to public sector organisations, compromising financial resources, reputational integrity, and citizen trust. This study synthesises existing literature on procurement fraud detection mechanisms, highlighting the complexities of this challenge and the need for a multifaceted approach to detection and prevention. The unique contribution of this article lies in its comprehensive review of advanced detection techniques, including data analytics, artificial intelligence, and blockchain technology, which can be leveraged to enhance procurement fraud detection and prevention. However, despite the growing body of research on procurement fraud, there remains a significant gap in understanding the effectiveness of these techniques in the South African context. Further research is required to explore the application of these techniques in the South African public sector, identifying best practices and challenges in implementation. Additionally, research on the impact of organisational culture and leadership on procurement fraud prevention is warranted.

Recommendations: Public sector organisations should invest in advanced detection techniques, such as data analytics and artificial intelligence, to enhance procurement fraud detection and prevention. Whistleblower mechanisms should be established and protected to encourage reporting of suspicious activities. Procurement staff should receive regular training and education on procurement fraud detection and prevention. E-procurement platforms should be adopted to enhance transparency and accountability in procurement processes. In conclusion, procurement fraud is a complex and evolving challenge that requires a proactive and multifaceted approach to detection and prevention. By leveraging advanced detection techniques, strengthening internal controls, and promoting a culture of transparency and accountability, public sector organisations can protect public resources and maintain citizen trust. The fight against procurement fraud is ongoing, and we must continue to innovate and adapt to stay ahead of emerging threats.

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