

JOURNAL OF ANTI-CORRUPTION LAW

2025 Volume 9(2) Pages 255 - 283

COMBATING TENDER FRAUD: ENHANCING PROCUREMENT ACCOUNTABILITY

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ABSTRACT

Corruption remains pervasive in South Africa, particularly within the public tender sector. Millions of rand are lost each year, and in some instances, lives are endangered or even taken due to tender-related fraud. Reports frequently implicate government officials in procurement corruption, especially regarding the awarding of tenders. The reliance of the tender process on human participation and intervention creates a fertile ground for corrupt activities. Given the substantial financial stakes and the broad discretionary powers often granted to officials, the temptation for corruption can be overwhelming. Tender fraud frequently manifests through schemes such as bid rigging, bid splitting, and collusion. Often, legitimate bids are rejected in favour of entities preferred by officials. There are documented cases where individuals, acting as members, directors, or shareholders of certain companies, falsely claim to represent different entities in order to manipulate bid prices and ensure that their favoured companies secure contracts. This article proposes exploring an innovative approach inspired by reforms introduced by the Albanian Minister of State for Artificial Intelligence, where Artificial Intelligence (AI) plays a central role in automating and managing public processes. By reducing or removing the human element in critical stages of the bidding and tender process, AI could enhance fairness, transparency, and accountability. It is acknowledged, however, that AI is not a magical solution that will instantly eradicate corruption and tender fraud. AI systems may also present challenges, including limited oversight, potential algorithmic bias, and the risk of producing unsatisfactory outcomes if poorly designed or improperly monitored. Nevertheless, a holistic consideration of the issue is essential. Given the scale and persistence of corruption, there must at least be an effort to adopt tools capable of making a meaningful impact. The deployment of AI in public procurement offers a powerful opportunity to curb and, potentially, eliminate tender fraud. This article argues that such technological interventions should be seriously explored as part of a broader strategy to combat this enduring and destructive problem.

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1. INTRODUCTION

South Africa, often lauded for its natural splendour, undeniably harbours significant challenges, notably persistent corruption and crime.¹ The public sector, in particular, has been plagued by procurement fraud, a form of corruption where officials and contractors collude to manipulate tender processes for illicit gain.² Since 1994, it is estimated that approximately R700 billion in public funds has been lost to corruption, much of it through rigged government contracts.³ There have, however, been some success in recovering appropriated funds. The Special Investigating Unit (SIU), for example recovered R2 billion for the National Student Financial AID Scheme (NSFAS).⁴ Nevertheless, corruption in the public sector remains pervasive. It is estimated that as much as R25 billion and R30 billion of the government's annual procurement budget is lost to tender corruption alone.⁵ The advent of the deadly COVID-19 pandemic unfortunately, created new opportunities for perpetrators to exploit public resources,⁶ resulting in substantial volumes of economic crime.⁷ Emergency relief funds distributed by governments were specifically targeted by fraudsters, money launderers, and corrupt officials seeking new sources of illicit wealth.⁸ Such criminal activity is likely to persist unless effective and efficient solutions are implemented.⁹ It is therefore argued that the time may have come to consider more innovative approaches to addressing this problem.

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- 1 Wesso C & Hamman A. (2022). Grappling with the Scourge of Money Laundering during the Covid-19 Pandemic in South Africa. *Journal of Anti-Corruption Law* 127.
 - 2 Duja Consulting (2025) Procurement Fraud in Public Entities-A Forensic Perspective available at <https://www.duja.co.za/procurement-fraud-in-public-entities-a-forensic-perspective>.(accessed 23 October 2025). This discussion does not address scams in which fraudsters impersonate government departments, use fake email domains, or issue counterfeit purchase orders. In such schemes, bidders are deceived into believing they have secured a contract, only to be told to make advance payments before goods are "released." Nor does it cover phishing and similar frauds targeting unsuspecting individuals.
 - 3 Duja Consulting (2025) at <https://www.duja.co.za>. (accessed 20 November 2025).
 - 4 SIU returned over R1,7 billion into NSFAS's coffers <https://www.siu.org.za/siu-returned-over-r17-billion-into-nsfass-coffers/> (accessed 12 November 2025).
 - 5 Corruption-Watch (2015)-Understanding-Corruption in Tenders available at <https://www.corruptionwatch.org.za/wp-content/uploads/2015/06/.Corruption-Watch-Understanding-tender-corruption> 8 (accessed 23 October 2025).
 - 6 Wesso & Hamman (2022) 127.
 - 7 Wesso & Hamman (2022) 127.
 - 8 Wesso & Hamman (2022) 127.
 - 9 Wesso & Hamman (2022) 126.

The public procurement sector is particularly vulnerable to corruption due to the immense financial stakes involved and the considerable discretion afforded to officials within the tendering process.¹⁰ Furthermore, the size and complexity of the public sector means that significant amounts of money are allocated to various departments, granting public officials access to and control over how these funds are spent, often within their own discretion. Corruption in this sphere not only leads to inflated costs and inefficient resource allocation of resources, but also significantly erodes public trust in government institutions.¹¹ The construction industry, for example, is particularly vulnerable to fraud and corruption, despite the fact that approximately R7.1 trillion has been earmarked for infrastructure development between 2023 and 2026.¹² Given the complexity of procurement processes and the often limited transparency surrounding them, the manipulation of tendering procedures can be difficult to detect.¹³ Against this backdrop, this article explores the transformative potential of deploying Artificial Intelligence (AI) and data analytics, operating under principles of algorithmic integrity, to assist in managing critical functions within the public procurement cycle.¹⁴ Importantly, such technologies are not intended to replace human oversight, but rather to complement and support the work of investigators and officials within specialised investigative units.

2. PROCUREMENT CORRUPTION IN SOUTH AFRICA

The period following the onset of the COVID-19 pandemic vividly illustrated the extent to which procurement corruption has become entrenched in South Africa.¹⁵ Criminals aggressively exploited emergency procurement systems, converting illegal proceeds into

10 Ferweda J, Deleanu, & Unger B Corruption in Public Procurement *European Journal on Criminal Policy and Research* 2016 (245).

11 Ayobami A T, Mike-Olisa U, Chidera Ogeawuchi J, Abayomi A A, Agboola O A Algorithmic Integrity: A Predictive Framework for Combating Corruption in Public Procurement through AI and Data Analytics (2023) *Journal of Frontiers in Multi-disciplinary Research* 131.

12 Council for the Built Environment (CBE) (2024) Fraud in the South African Construction Industry A Growing Challenge available at <https://cbe.org.za/fraud-in-the-south-african-construction-industry-a-growing-challenge> (accessed 23 October 2025).

13 Corruption-Watch (2015)5 available at <https://www.corruptionwatch.org.za> (accessed 23 October 2025).

14 Ayobami et al (2023) 130.

15 Wesso & Hamman (2022) 128.

legitimate assets through money laundering (ML), thereby concealing predicate offences.¹⁶ The financial losses associated with fraudulent procurement during the pandemic as well as in preceding years, underscore the urgency of systemic reform. Corruption has been widely reported across municipalities, with Corruption Watch receiving 465 corruption reports between January 2012 and January 2014, 32% of which originated from Gauteng.¹⁷ The City of Johannesburg alone accounted for 61 reports of alleged corruption.¹⁸

2.1 Examples of Systemic Corruption

The Judicial Commission of Inquiry into Allegations of State Capture (Zondo Commission) highlighted the extensive nature of corruption within public procurement.¹⁹ Despite these revelations, high-profile scandals continue to emerge across various sectors, demonstrating persistent practices such as bribery, bid-rigging, and fraud.²⁰ The construction sector provides a notable example of a sector frequently affected by procurement corruption. Fraudulent activities often include the acceptance of substandard work, inflating pricing and collusion between contractors and officials, thereby overcharging, which jeopardises public safety and undermines infrastructure development.²¹ In one high-profile investigation, the Special Investigating Unit (SIU) uncovered procurement irregularities amounting to approximately R3 billion within the Department of Public Works. The investigation revealed improperly awarded tenders, falsified accounting records and corruption involving department officials.²² These irregularities affected leases, prestige projects linked to the presidency and cabinet, and other procurement processes.²³ Similarly, investigations into the construction

16 Wesso & Hamman (2022) 127.

17 Corruption-Watch (2015) available at <https://www.corruptionwatch.org.za>, 3, 9. (accessed 23 October 2025).

18 Corruption-Watch (2015) available at <https://www.corruptionwatch.org.za>, 10. (accessed 23 October 2025).

19 Wesso & Hamman (2022) 128.

20 Duja Consulting (2025) available at <https://www.duja.co.za>. (accessed 23 October 2025).

21 Council for the Built Environment (CBE)(2024) <https://cbe.org.za/fraud-in-the-south-african-construction-industry-a-growing-challenge> (accessed 12 November 2025).

22 Political Bureau (2021) *R3bn tender fraud found by SIU* available at <https://iol.co.za/news/2011-09-20-r3bn-tender-fraud-found-by-siu> (accessed 10 November 2025).

23 Political Bureau (2021) available at <https://iol.co.za/news/2011-09-20-r3bn-tender-fraud-found-by-siu> (accessed 10 November 2025).

cartel revealed widespread collusion among major companies in large infrastructure projects, including stadium construction for the 2020 FIFA World Cup.²⁴ The Competition Commission subsequently imposed collective fines totalling R1.5 billion.²⁵

Corruption in procurement processes became particularly visible during the COVID-19 Pandemic. Emergency procurement of personal protective equipment (PPE) created opportunities for large-scale abuse.²⁶ The South African Police Services (SAPS) was implicated in irregular PPE procurements amounting to R1.6 billion in only six months in 2020.²⁷ Between April 2020 and September 2021, the South African Government spent approximately R152.5 billion on COVID-related contracts, of which R14.4 billion was considered potentially corrupt or irregular.²⁸

Numerous contracts were awarded without proper tender procedures, frequently to politically connected companies with little or no experience in supplying medical equipment. In one case, a Gauteng-based company received a R139 million contract for PPE despite lacking relevant expertise.²⁹ In another widely criticised incident, the Eastern Cape government procured so-called “ambulance scooters”, which proved impractical and unusable.³⁰ The Special Investigating Unit subsequently investigated hundreds of these contracts and sought to recover billions in misappropriated funds.³¹

Another widely publicised case involved the Digital Vibes scandal. In 2023, Digital Vibes secured a R150 million contract from the National Department of Health to conduct public awareness campaigns related to COVID-19 and the national health insurance programme. Investigations later revealed that the company was closely linked to the associates of the then

24 Corruption-Watch (2015) 6 available at <https://www.corruptionwatch.org.za> (accessed 23 October 2025).

25 Corruption-Watch (2015) 58 available at <https://www.corruptionwatch.org.za> (accessed 23 October 2025).

26 Wesso & Hamman (2022) 128.

27 Wesso & Hamman (2022) 128.

28 Duja Consulting (2025) available at <https://www.duja.co.za> (accessed 23 October 2025).

29 SIU welcomes dismissal of Gauteng Health official at <https://www.sanews.gov.za/south-africa/siu-welcomes-dismissal-gauteng-health-official> (accessed 12 November 2025).

30 Eastern Cape scooter project doesn't replace ambulances, says Mkhize available at <https://www.citizen.co.za/network-news/lnn/article/eastern-cape-scooter-project-doesnt-replace-ambulances-says-mkhize/> (accessed 23 October 2025).

31 SIU investigations, recoveries saved govt R8bn available at <https://www.polity.org.za/article/siu-investigations-recoveries-saved-govt-r8bn-2024-10-15/> (accessed 25 November 2025).

Health Minister, Dr Zweli Mkhize.³² The contract was irregularly awarded and significantly overpriced. A forensic investigation by the Special Investigating Unit found that Digital Vibes subcontracted most of the work while diverting funds to entities connected to the minister's family.³³ These funds were allegedly used for personal expenses, including home renovations and the purchase of a vehicle for a family member. The scandal ultimately led to Mkhize's resignation and criminal referrals against several individuals.

Procurement corruption has also severely affected state-owned enterprises. At the national electricity utility Eskom, irregular procurement practices have contributed significantly to financial losses and operational instability.³⁴ One example involved fraudulent procurement linked to the Kusile Power Station project, where equipment was purchased at highly inflated prices through corrupt arrangements.³⁵ In March 2025, several individuals, including former Eskom officials, were arrested in connection with procurement fraud relating to this project. These cases form part of broader patterns of corruption associated with the era of state capture, during which procurement systems at state-owned enterprises were systematically manipulated. Tender Fraud has also emerged in relation to the implementation of Broad-Based Black Economic Empowerment (B-BBEE) policies. Although the legislation was designed to promote economic transformation, procurement requirements have at times been manipulated through practices such as fronting. A prominent example involves an R88 million procurement fraud case within the South African Police Service (SAPS).³⁶ Several individuals, including Matthew Pillay and associates, together with multiple companies, were charged with hundreds of counts of fraud and money

32 Wesso & Hamman (2022) 1131, 132. Duja Consulting (2025) at <https://www.duja.co.za> (accessed 12 November 2025).

33 Duja Consulting (2025) available at <https://www.duja.co.za> (accessed 12 November 2025).

34 Eskom, irregular procurement practices have contributed significantly to financial losses and operational instability available at <https://procurementmag.com/logistics-distribution/lessons-from-eskom-procurement-fraud> (accessed 12 November 2025).

35 Eskom, irregular procurement practices have contributed significantly to financial losses and operational instability available at <https://procurementmag.com/logistics-distribution/lessons-from-eskom-procurement-fraud> (accessed 12 November 2025).

36 National Prosecuting Authority of South Africa (NPA) (2025) Seven Accused Appear in Court Over R88 Million Tender Fraud in the SAPS available at <https://www.npa.gov.za/media/seven-accused-appear-court-over-r88-million-tender-fraud-saps> (accessed 12 November 2025).

laundering. Pillay registered his company under his mother's directorship to falsely represent it as compliant with B-BBEE requirements aimed at promoting women and designated groups.

The company, KJP Trades, secured a three-year SAPS contract valued at approximately R88 million to supply office furniture across several provinces to comply with procurement requirements for subcontracting to local beneficiaries. Additional front companies were created and falsely presented as legitimate subcontractors.³⁷ These entities misrepresented their addresses and ownership structures, and in some instances even submitted competing bids in order to disadvantage genuine bidders.³⁸ The tender documentation further contained misrepresentations regarding VAT status and company ownership.³⁹ Through this coordinated deception, the company succeeded in securing the contract.

Fraudulent procurement is also prevalent at the municipal level, where it frequently contributes to service delivery failures. The Madibeng Local Municipality in the North West province lost over R50 million through fraudulent water infrastructure contracts that were never completed.⁴⁰ This corruption contributed to persistent water shortages and deteriorating infrastructure.⁴¹ In another municipal example, an inflated quotation for water testing equipment, approximately ten times higher than that of a legitimate supplier, was accepted, despite objections raised by a whistle blower.⁴² Similarly, a procurement officer at Dr JS Moroka Local Municipality illegally awarded a R24,000 contract to her husband, illustrating clear nepotism.⁴³

These examples demonstrate that procurement corruption often stems from the human element within procurement systems, particularly where officials exercise substantial discretionary power.⁴⁴ In one instance, a college deputy principal authorised the purchase of

37 NPA (2025) available at <https://www.npa.gov.za/media/seven-accused-appear-court-over-r88-million-tender-fraud-saps> (accessed 12 November 2025).

38 Duja Consulting (2025) available at <https://www.duja.co.za>.

39 NPA (2025) <https://www.npa.gov.za/media/seven-accused-appear-court-over-r88-million-tender-fraud-saps>(accessed 12 November 2025).

40 Duja Consulting (2025) available at <https://www.duja.co.za> (accessed 12 November 2025).

41 Duja Consulting (2025) available at <https://www.duja.co.za> (accessed 12 November 2025).

42 Corruption-Watch (2015)⁶ available at <https://www.corruptionwatch.org.za> (accessed 12 November 2025).

43 Corruption-Watch (2015)⁴¹ available at <https://www.corruptionwatch.org.za> (accessed 12 November 2025).

44 Ayobami *et al* (2023) 131.

software valued at R750,000 without following proper tender procedures, yet the software was never delivered. The integrity of the process is compromised when officials reject legitimate bids in favour of predetermined entities.⁴⁵

In one instance, a college deputy principal authorised the purchase of software valued at R750,000 without following proper tender procedures, yet the software was never delivered.⁴⁶ Such cases highlight how weak oversight and discretionary authority enable corruption to flourish within public procurement systems.

3. DETRIMENTAL CONSEQUENCES

The situation has deteriorated to such an extent that individuals have lost their lives as a direct consequence of widespread corruption and fraud in the awarding of government tenders.⁴⁷ The prevalence of fraudulent procurement processes has become a profound concern, with some individuals effectively “paying with their lives” for exposing corrupt activities.⁴⁸ Auditors, whistleblowers, members of the legal profession, investigative journalists and even police officers have been targeted by the very actors whose misconduct they sought to uncover.⁴⁹ These attacks of intimidation and violence are frequently intended to silence those who challenge corruption and to deter further scrutiny of illicit procurement processes. By eliminating or threatening individuals who expose wrongdoing, corrupt networks seek to preserve their access to public funds and avoid accountability. Such actions reveal the extent to which procurement corruption has become entrenched and the lengths to which perpetrators are willing to go to protect their illicit gains.

The following section highlights several examples of individuals who were severely affected and, in some instances, killed because of their efforts to expose corruption and fraud within procurement systems. These cases illustrate the profound human cost of tender corruption and

45 Ferweda, Deleanu & Unger (2016) 253.

46 Corruption-Watch (2015)40. available at <https://www.corruptionwatch.org.za> (accessed 23 October 2025).

47 Corruptionwatch (2025) She knew too much: why Babita Deokaran had to die available at <https://www.corruptionwatch.org.za/she-knew-too-much-why-babita-deokaran-had-to-die/>

48 Corruptionwatch (2025) at <https://www.corruptionwatch.org.za/she-knew-too-much-why-babita-deokaran-had-to-die> (accessed 23 October 2025).

49 News 24. 'Charl Kinnear murder: police must explain why armed protection of anti-gang cop was withdrawn- expert' 2020 available at <https://www.news24.com/news24/charl-kinnear-murder-police-must-explain-why-armed-protection-of-anti-gang-cop-was-withdrawn-expert-20200921> (accessed 26 November 2025).

demonstrate that the consequences extend far beyond financial losses. When corruption within procurement processes is allowed to flourish, it not only undermines public institutions and service delivery but also threatens the safety and lives of those committed to upholding integrity and accountability.

3.1 Auditors

The following examples illustrate how some individuals have paid the ultimate price for exposing corruption in procurement and tendering processes. One such example is the assassination of Mzwandile Mafole, Ekurhuleni's municipal chief auditor.⁵⁰ It is believed that his investigation into a R1.8 billion mobile chemical toilet tender may have contributed to his murder. Mafole was assassinated on 30 June 2025 in Kempton Park.⁵¹

Investigators later indicated that Mafole had been auditing the controversial sanitation tender shortly before his death. The contract involved the supply of mobile chemical toilets to informal settlements and areas lacking adequate sanitation infrastructure. Mafole and four members of his audit team had been tasked with reviewing the contract before it was awarded to fifteen companies for three years ending in June 2028. Within six days, the team completed and submitted an internal audit report that allegedly identified serious irregularities in the tender process. The report was handed over on 26 June 2025, and only four days later, Mafole was fatally shot.⁵² His killing represents one of the most recent examples of the targeting of professionals investigating corruption in public procurement.

3.2 Whistle Blowers

Another tragic example is the assassination of Babita Deokaran, a key whistle blower in corruption investigations within the Gauteng Department of Health. Deokaran, the department's chief director of financial accounting, was shot multiple times outside her

50 Stark V (2025) Share Slain auditor's report on R1,8-billion chemical toilet tender - details revealed available at <https://www.ewn.co.za/2025/10/20/slain-auditors-report-on-r1-8-billion-chemical-toilet-tender-details-revealed> (accessed 20 November 2025).

51 Stark (2025) <https://www.ewn.co.za/2025/10/20/slain-auditors-report-on-r1-8-billion-chemical-toilet-tender-details-revealed> (accessed 20 November 2025).

52 Stark (2025) <https://www.ewn.co.za/2025/10/20/slain-auditors-report-on-r1-8-billion-chemical-toilet-tender-details-revealed> (accessed 20 November 2025).

Johannesburg home in August 2021 shortly after dropping her child at school.⁵³ She had previously provided crucial evidence relating to irregular COVID-19 personal protective equipment and was involved in investigations concerning multimillion-rand tenders. Her murder shocked the nation and renewed calls for stronger whistle blower protection and procurement reform. The case illustrates the extreme lengths to which corrupt actors may go to avoid accountability.⁵⁴

Another prominent whistle blower is Athol Williams, who was forced to leave South Africa after receiving a threat against his life. In March 2021, Williams testified before the Judicial Commission of Inquiry into Allegations of State Capture. The commission investigated extensive corruption involving collusion between politicians and private businesses aimed at influencing state decisions and weakening regulatory institutions.⁵⁵ Williams, a former ethics lecturer at the University of Cape Town and former partner at Bain & Company, provided evidence regarding alleged misconduct involving Bain and the South African Revenue Service.⁵⁶ Following warnings from trusted associates and civil society organisations about threats against him, he ultimately left the country, arguing that the killing of Deokaran demonstrated the state's failure to adequately protect whistle-blowers.

3.3 The Legal Profession

Legal professionals involved in exposing corruption have also become targets of violence. On 18 March 2023, prominent lawyer and liquidator Cloete Murray and his son were murdered after gunmen forced their vehicle off a major highway and opened fire.⁵⁷ Murray was widely recognised for his work recovering assets linked to high-level corruption and had been

53 Corruptionwatch (2025) at <https://www.corruptionwatch.org.za/she-knew-too-much-why-babita-deokaran-had-to-die> (accessed 20 November 2025).

54 Corruptionwatch (2025) at <https://www.corruptionwatch.org.za/she-knew-too-much-why-babita-deokaran-had-to-die> (accessed 20 November 2025).

55 Nel & Van Romburgh (2024) Appraising the role of the Zondo Commission in the fight against corruption in South Africa *International Business Conference* 8.

56 Mahlaka R (2021) South Africa: Athol Williams - 'I will Continue Whistle-Blowing and Making the Corrupt Uncomfortable' *Dailey Maverick* 28 November 2021.

57 Coetzer M (2023) Murder of liquidator Cloete Murray and son likely hits linked to graft available at <https://www.citizen.co.za/news/south-africa/crime/murder-cloete-murray-son-hits-linked-graft> (accessed 12 November 2025).

appointed by the Master of the High Court to trace and recover funds in several sensitive corruption cases.⁵⁸ Similarly in September 2025, bankruptcy lawyer Bouwer van Niekerk was assassinated in the boardroom of his Johannesburg law firm after two men arranged a meeting and shot him once he identified himself.⁵⁹ According to media reports, the killing forms part of a disturbing trend targeting professionals involved in financial investigations. The climate of fear has become so severe that judges, lawyers, and forensic accountants have reportedly begun armour-plating their vehicles for protection. Shamila Batohi, the National Director of Public Prosecutions, has warned that prosecutors increasingly face serious safety risks in South Africa.⁶⁰ In July 2025, prosecutor Tracy Brown was shot and killed in Gqeberha, further highlighting the dangers faced by those attempting to combat corruption.⁶¹

These cases demonstrate that procurement corruption in South Africa is not merely a financial or administrative problem, but one that carries profound human consequences. When individuals who seek to expose wrongdoing are intimidated, threatened, or even murdered, the rule of law and the integrity of public institutions are fundamentally undermined. The high levels of discretion involved in procurement decisions, combined with weak oversight mechanisms, create conditions in which corruption can flourish, and those who challenge it become vulnerable. These realities underscore the urgent need for systemic reforms that reduce reliance on individual discretion and strengthen transparency within procurement systems. In this regard, technological tools such as Artificial Intelligence and advanced data analytics may offer innovative mechanisms to detect irregularities, identify patterns of fraud, and support oversight processes. By automating aspects of monitoring and analysis, such systems could help expose corruption earlier, reduce opportunities for

58 Nel B (2023) UPDATE: Liquidator Cloete Murray follows son Thomas to the grave after a suspected hit available at: <https://iol.co.za/weekend-argus/news/2023-03-19-update-liquidator-cloete-murray-follows-son-thomas-to-the-grave-after-a-suspected-hit/> (accessed 12 November 2025).

59 Cowan K, Du Toit P & Pijoos I (2025) UPDATE | Cold-blooded assassination of insolvency lawyer ‘sends hard message’ available at: <https://www.news24.com/southafrica/crime-and-courts/insolvency-attorney-bouwer-van-niekerk-shot-dead> (accessed 12 November 2025).

60 Internet mag (2025) Batohi warns prosecutors are becoming targets in high-profile cases available at <https://internetmag24.com/2025/11/12/politics/batohi-warns-prosecutors-are-becoming-targets-in-high-profile-cases> (accessed 12 November 2025).

61 Francke R (2025) Four gunmen sought after a public prosecutor Tracy Brown gunned down in Gqeberha available at <https://thestar.co.za/news/crime-and-courts/2025-08-01-four-gunmen-sought-after-a-public-prosecutor-gunned-down-in-gqeberha> (accessed 12 November 2025).

manipulation, and potentially lessen the risks faced by individuals who would otherwise be required to uncover these activities themselves.

4. AN INNOVATIVE APPROACH

Surely decisive action must be taken. It cannot be acceptable that auditors, whistle-blowers, and legal professionals are being threatened or killed by unscrupulous fraudsters and individuals determined to perpetuate corruption and tender fraud.⁶² These tragic incidents occur alongside the enormous financial losses suffered by the state as a result of procurement corruption. As discussed earlier, this raises an important question: whether it is the time to consider a fundamental paradigm shift in how procurement corruption is addressed, including exploring how technological solutions such as Artificial Intelligence (AI) could assist in alleviating this increasingly uncontrollable problem.⁶³

AI offers an innovative and proactive approach to addressing South Africa's persistent vulnerabilities in public procurement. By automating certain oversight functions, reducing reliance on human discretion, and detecting complex fraudulent schemes, AI has the potential to strengthen transparency and accountability within procurement systems.⁶⁴

South Africa's tender environment is particularly susceptible to corruption due to the significant financial stakes involved, the high level of human participation in decision-making, and the discretionary powers exercised by officials. These conditions create opportunities for practices such as bid-rigging,⁶⁵ bid splitting,⁶⁶ collusion, and the awarding of contracts to preferred or fraudulently represented entities.

While South Africa possesses a relatively comprehensive legislative framework to regulate procurement processes, the persistence of corruption suggests that the primary challenge lies not in the absence of regulation, but rather in weak implementation,

62 See the above examples of deokaran, Murray, brown and Kinnear.

63 Delauney G (2025) World's first AI minister will eliminate corruption, says Albania's PM available at <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 12 November 2025).

64 Delauney G (2025) <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 12 November 2025).

65 Carbone C, Calderoni F & Jofre M (2024) Bid-rigging in public procurement: cartel strategies and bidding patterns *Crime, Law and Social Change* 249.

66 Giosa PA (2018) 13(1) Division of Public Contracts into Lots and Bid Rigging: Can Economic Theory Provide an Answer? *European Procurement & Public Private Partnership Law Review* 30.

insufficient political will, and difficulties in securing successful investigations and prosecutions. AI technologies could assist in addressing these shortcomings by enhancing monitoring capabilities, identifying suspicious procurement patterns, and flagging irregular transactions at an early stage.

The central rationale for integrating AI into procurement oversight is to reduce opportunities for manipulation by limiting the influence of the human element in critical stages of the bidding and tender evaluation process.⁶⁷ Although AI cannot eliminate corruption, it may significantly reduce opportunities for fraud within public procurement systems. However, the implementation of such technologies must be undertaken carefully, ensuring that AI systems operate with integrity, transparency, and accuracy, while minimising the risks of bias and ensuring proper oversight mechanisms.

5. AI AND ALGORITHMIC INTEGRITY

To address persistent failures associated with human discretion, an overhaul of public procurement through AI presents a compelling alternative, an approach already being explored or implemented in several countries.⁶⁸ Given the wide range of fraudulent practices, including collusive bidding, bid suppression, market division, and post-submission bid manipulation, the complexity and opacity of tender awards require more sophisticated detection methods than traditional oversight can provide.⁶⁹

Central to this transformation is the principle of algorithmic integrity, which emphasises fairness, transparency, and accountability in AI systems. When carefully operated, AI systems can minimise the risk of replicating existing biases that may arise when models are trained on flawed historical datasets. Intelligent automation enables the extraction, transformation, and integration of a large volume of data, streamlining compliance checks and reducing human errors, such as transcription mistakes, that may

67 Lad R (2025) The Future of Bid Management: How AI and Automation Could Reshape Competitive Tenders available at <https://techbullion.com/the-future-of-bid-management-how-ai-and-automation-could-reshape-competitive-tenders/> (accessed 10 November 2025).

68 Delauney G (2025) <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 12 November 2025)

69 Corruption-Watch (2015)35, 38 & 39 available at <https://www.corruptionwatch.org.za> (accessed 12 November 2025)

create opportunities for corrupt practices. Importantly, AI allows anti-corruption strategies to shift from reactive investigations to proactive, real-time risk detection. This approach addresses a key challenge in South Africa, where robust legislative frameworks often exist, but implementation and enforcement remain weak.

Adhering to algorithmic integrity is therefore essential.⁷⁰ AI systems must be ethically designed, transparently operated, and accountable for their outputs.⁷¹ This includes the use of explainable AI techniques, ensuring that procurement officials can understand why certain bids are flagged as suspicious.⁷² Such transparency enables human oversight, facilitates the correction of potential errors, and helps maintain institutional trust in automated procurement monitoring systems. Next, a discussion of machine learning tools and national language processing tools follows.

5.1 Machine Learning Models

Machine Learning (ML) models commonly used in AI systems, such as Random Forest, Gradient Boosting Machines, Isolation Forest, and One-Class Support Vector Machines (SVM), are highly effective at detecting patterns and anomalies in large, complex procurement datasets.⁷³ These models can be trained to flag bids that deviate significantly from historical pricing trends, an especially valuable function given South Africa's documented instances of inflated contract costs, including the irregular R431 million spent on sanitising schools and the R172 million in questionable PPE contracts at the NHLS. Disparity between a bid's value and the estimated cost is a strong predictor of procurement anomalies.

AI is also capable of identifying broader "red flags" linked to corruption risks.⁷⁴ These include unusually low participation in bidding processes, repeated victories by the same supplier, abnormally short submission deadlines, and patterns suggesting discretionary contractor selection without proper justification. AI tools can evaluate compliance with

70 Ayobami *et al* (2023) 131.

71 Ayobami *et al* (2023) 136.

72 Ayobami *et al* (2023) 130.

73 Ayobami *et al* (2023) 131.

74 Decarolis F & Giorgiantonio C Corruption red flags in public procurement: new evidence from Italian calls for tenders *EPF Data Science* (2022)1.

minimum bidding timeframes, detect irregular subcontracting arrangements, and assess procurement behaviours that often signal corruption vulnerabilities. Beyond these indicators, AI offers powerful capabilities for uncovering sophisticated corruption schemes such as collusion, bid rigging, and the use of shell or front companies, persistent challenges in South Africa's public procurement landscape. By cross-referencing supplier information across tax databases, company registries, and blacklist systems, AI can verify legitimacy and detect inconsistencies that would be difficult and time-consuming for human auditors to uncover manually.

Different ML approaches contribute uniquely to this process. Supervised learning models like Random Forest and Gradient Boosting Machines excel at classifying known instances of fraud when historical labelled data is available. Unsupervised models such as Isolation Forest and One-Class SVM are effective for detecting unusual bidding behaviours in situations where fraudulent patterns are not yet clearly defined.⁷⁵ AI relies on a range of corruption indicators for risk prediction, including a bidder's geographical proximity to project sites,⁷⁶ correlations between the same bidders across multiple tenders,⁷⁷ and significant discrepancies between bid values and official cost estimates.⁷⁸ It can also identify practices such as contract splitting to evade oversight thresholds, false emergency declarations used to bypass open competition, and the creation of fake vendors.⁷⁹

Finally, AI enhances audit capability by accelerating detection speed and improving accuracy. When paired with explainable AI tools, these systems also provide clearer reasoning behind flagged anomalies, increasing trust and interpretability for procurement officials.⁸⁰ Natural Language Processing (NLP) tools can match subtle details such as company names, directors, and addresses to uncover hidden relationships, revealing conflicts of interest and fraudulent supplier networks. Network analysis further enhances this capability by mapping complex connections between bidders, contractors, officials, and previous contracts. Through

75 Decarolis & Giorgiantonio (2022) 3.

76 Decarolis & Giorgiantonio (2022) 10.

77 Decarolis & Giorgiantonio (2022) 18.

78 Decarolis & Giorgiantonio (2022) 27.

79 Duja Consulting (2025) at <https://www.duja.co.za>.

80 Ayobami *et al* (2023) 132.

graph analytics, AI can detect systemic or coordinated corruption, such as groups of related companies winning tenders in rotation, patterns that traditional manual auditing would likely miss.⁸¹

Intelligent document analysis, using NLP and Optical Character Recognition (OCR), enables the processing of unstructured data contained in tender documents, invoices, and contracts.⁸² This allows AI to identify whether specifications are deliberately restrictive or copied from a preferred bidder's proposal, thereby supporting fair and competitive procurement practices.

6. ENHANCING INVESTIGATIVE CAPACITY AND ACCOUNTABILITY

To address South Africa's persistent challenge of weak enforcement, AI can significantly strengthen the capacity of anti-corruption institutions. It could enable Risk Prioritisation, where Machine Learning models can assign real-time risk scores to procurement transactions, suppliers, and officials. This allows procurement officers and investigators to allocate limited resources more efficiently by focusing on high-risk cases.⁸³ Explainable AI (XAI) tools clarify why a transaction or supplier was flagged, enhancing transparency, trust, and interpretability for procurement officials, auditors, and investigative bodies. This improves evidence-based decision-making and supports more effective enforcement actions.⁸⁴ By a system of Continuous Improvements, AI systems can incorporate feedback from human investigators, enabling the model to adapt to new fraud patterns and continuously improve accuracy.⁸⁵ This dynamic learning process allows AI to stay responsive to evolving corruption tactics.

For an AI model to be really successful and assist in combating fraud and corruption, there must be reliable data that is available. So in such a process, the data that has been captured and is unavailable to the AI systems must be updated, because a successful AI model requires vast quantities of structured, high-quality data.⁸⁶ Unfortunately, publicly available

81 Ayobami *et al* (2023) 134.

82 Ferweda, Deleanu & Unger (2016) 251.

83 Ferweda, Deleanu & Unger (2016) 245.

84 Ayobami *et al* (2023) 134.

85 Ferweda, Deleanu & Unger 2016 (248).

86 Longobucco A Ferwerda J (2025) Fighting Corruption with Artificial Intelligence: Searching for Suitable Public Procurement Data in the EU Bridgegap_Working_Paper available at

procurement data is frequently fragmented and inconsistent, and this could be a problem.⁸⁷ Detecting advanced forms of corruption, such as when contractors collude to submit "sham losing bids"⁸⁸ or when officials draft specifications to fit one specific company (rigged specifications),⁸⁹ requires connecting procurement information with non-procurement data, such as records of beneficial ownership and political connections.⁹⁰ And if this type of data is not readily available, it could be difficult for AI systems to read such data.

This approach of using AI in the public procurement domain mirrors innovative global initiatives, such as those led by the Albanian Minister of State for AI, who is pursuing similar technology-driven reforms to ensure public tenders are "100% free of corruption."⁹¹ By enabling predictive governance and early detection, AI offers a powerful pathway toward systemic integrity within public procurement.⁹² There are, however certain challenges which would make the implementation of AI not that easy. Such a move will definitely present certain critical challenges discussed next.

7. CHALLENGES AND DISADVANTAGES OF UTILISING AI TOOLS

While the technological capacity for AI-driven reform is clearly established, implementation faces significant structural, legal and political hurdles. While the potential benefits of AI in the tender process, law enforcement and the criminal justice system are immense, significant challenges and ethical considerations must be acknowledged. One concern is the potential misuse of AI if proper policies and procedures are not implemented. Integrity needs to be safeguarded to ensure that AI is used as a tool for preventing fraud. Another major issue is

<https://corruptiondata.eu/new-deliverable-report-maps-public-procurement-data-across-europe/> (accessed 12 November 2025).

87 Longobucco & Ferwerda J (2025) <https://corruptiondata.eu/new-deliverable-report-maps-public-procurement-data-across-europe> (accessed 12 November 2025).

88 Duja Consulting (2025) at <https://www.duja.co.za> (accessed 12 November 2025).

89 Duja Consulting (2025) Corruption-Watch (2015)36 at <https://www.duja.co.za> . available at <https://www.corruptionwatch.org.za> (accessed 12 November 2025).

90 Longobucco & Ferwerda J (2025) <https://corruptiondata.eu/new-deliverable-report-maps-public-procurement-data-across-europe> (accessed 12 November 2025).

91 Delauney G (2025) <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 12 November 2025).

92 Ayobami *et al* (2023) 130.

the risk of bias in AI algorithms.⁹³ If the data used to train these systems is biased, the resulting algorithms may perpetuate or even exacerbate existing prejudices, leading to unfair targeting of specific individuals or communities.⁹⁴ AI systems rely heavily on high-quality data to make accurate predictions.⁹⁵ Incomplete or inaccurate data can result in both false positives and false negatives, with serious consequences for justice and fairness.

AI algorithms can be complex and difficult to interpret, which poses challenges for those responsible for operating and overseeing the systems.⁹⁶ Despite advancements in AI technology, human judgment and intuition remain indispensable. Users of AI must understand the potential bias, given that AI systems are created by humans and may inherit human flaws. Privacy is another vital concern,⁹⁷ because the use of AI in surveillance, data analysis, and predictive policing raises questions about how to balance public safety with individual rights.⁹⁸ Clear guidelines and regulatory frameworks must be established to ensure that AI is used ethically and responsibly, with robust oversight mechanisms to prevent abuse. There is also the danger that overreliance on AI in criminal investigations could undermine the presumption of innocence.⁹⁹

It must be emphasised that AI-generated evidence is not a silver bullet. It cannot independently replace core aspects of human reasoning. However, it presents a powerful opportunity to improve investigative methods to check if everything in the tender process was done above board and in evidence collection and evaluation.¹⁰⁰ AI systems can monitor thousands of phone calls simultaneously, significantly enhancing the effectiveness of voice recognition.¹⁰¹ This is a way to determine whether the correct individual is taking part in a

93 Fair Trials (2025) *Artificial intelligence (AI), data and criminal justice* 5, available at <https://www.fairtrials.org/campaigns/ai-algorithms-data/>. (accessed 22 November 2025).

94 Fair Trials (2025) <https://www.fairtrials.org> 5.

95 Sanction Scanner report (2025) *How AI and Machine Learning Help Prevent Money Laundering?* available at <https://www.sanctionscanner.com/blog/how-ai-and-machine-learning-help-prevent-money-laundering> (accessed 24 June 2025).

96 Sanction Scanner report (2025) <https://www.sanctionscanner.com>.

97 Singh D 'Policing by Design: Artificial intelligence. Predictive Policing and Human Rights in South Africa' 2022 *Just Africa* 59.

98 Singh (2022) 48. Krausova A 'Intersections between Law and Artificial Intelligence' (2017) 27 (1) *International Journal of Computer* (IJC) 59.

99 Fair Trials (2025) 5 available at <https://www.fairtrials.org> (accessed 12 November 2025).

100 Singh (2022) 41.

101 Krausova (2017) 59.

bidding process, for example. Nevertheless, issues such as programming bias and data integrity must be addressed, particularly regarding the right to privacy and the lawful acquisition of evidence. The usage of AI also presents legislative challenges, and research needs to be conducted; thus, issues need to be properly regulated, and there is currently a void in the regulation of AI technology.

7.1 The regulatory void of AI Technology

There are largely no standards or regulations to guide their usage (generally). One of the most pressing disadvantages of the current proliferation of AI technology is the worrying lack of robust, independent evidence about the effectiveness, safety, and overall impact of these systems.¹⁰² This absence is compounded by a lack of comprehensive, binding normative frameworks specifically designed to address the application of AI in contexts such as the procurement process.¹⁰³ The consequence of this regulatory void is profound, as unregulated AI technology may deepen existing inequalities and divides. Many existing guidelines and ethical frameworks attempting to address AI risks are often non-binding recommendations that actors are free to follow or ignore.¹⁰⁴ Moreover, these frameworks often focus only on a limited set of aspects related to AI risk, meaning a comprehensive normative framework addressing all potential consequences is missing.¹⁰⁵ Leaving the regulation of AI systems to the free market is undesirable, especially given the impact of AI on fundamental justice values related to the rule of law.¹⁰⁶

Without dedicated protective transparent mechanisms in place, there is a risk that systems will increasingly depend on proprietary or siloed AI-enabled technologies over which there is no regulated democratic control, creating risks to privacy and state sovereignty.¹⁰⁷ For AI to be successfully implemented in the tender process, this issue needs to be addressed.

102 COE Council of Europe Report (2024) Preparatory Study for the Development of a Legal Instrument Regulating the use of Artificial Intelligence in Education 3.

103 G Lupo (2019) 'Regulating (Artificial) Intelligence in Justice: How Normative Frameworks Protect Citizens from the Risks Related to AI Use in the Judiciary' (2019) *European Quarterly of Political Attitudes and Mentalities*, 8(2) 75.

104 Lupo (2019) 92.

105 Lupo (2019) 92.

106 Lupo (2019) 92.

107 COE (2024 above) 9.

As previously mentioned, a lot of research must still be done, which could possibly lead to the drafting of appropriate legislation.

7.2 Introducing AI in the tender/procurement process

AI is increasingly integrated into the tender process and practice, encompassing a range of technologies and techniques that simulate human intelligence processes, such as analysing legal documents or predicting case outcomes.¹⁰⁸ Such applications are also being used in Legal Practice and Education. It is suggested that the best practises in these fields should be incorporated in the public procurement process. Currently, law firms utilise AI for tasks such as due diligence, predictive analytics, brief analysis, legal search, and generating standardised contracts.¹⁰⁹ This can be made applicable in the public procurement process also. Specific applications include legal research where AI-powered platforms can analyse vast amounts of legal data to identify relevant precedents and statutes, and inform strategic decision-making.¹¹⁰ Examples include AI search tools like "Ross",¹¹¹ a document review system. AI platforms like Luminance use pattern recognition and machine learning to read and understand contracts and other legal documents, finding significant information and anomalies without explicit instruction.¹¹² These examples of document checks can be a useful tool to check and evaluate documentation that was submitted during the tender process.

There are however inherent challenges where AI is utilised without any type of regulation. Even without regulatory considerations, the widespread adoption of AI presents numerous technical and practical challenges. AI algorithms can inadvertently perpetuate bias and discrimination embedded in the data they are trained on, which is a significant ethical concern.¹¹³ Many sophisticated AI models, especially those based on machine learning, operate as "black boxes," making it difficult to trace why a particular prediction or output was

108 Lupo (2019) 75.

109 Cyran H 'New rules for a new era: regulating artificial intelligence in the legal field' (2024) 15(1) *Journal of Law, Technology and the Internet* 4. Lupo (2019) 75.

110 Lupo (2019) 76.

111 Lupo (2019) 78. Ross Intelligence available at <https://rossintelligence.com/> (accessed 12 November 2025). Ross is a legal research engine that utilises artificial intelligence to automate activities, as legal search that usually involves lawyers and law firms regulating AI.

112 Lupo (2019) 78

113 Lupo (2019) 84; Cyran (2024) 31.

generated.¹¹⁴ AI necessitates new skills and competencies among all role players and professionals, requiring training and upskilling initiatives in areas like data analysis and technology proficiency.¹¹⁵ Generative AI, like ChatGPT, is known to write "plausible-sounding but incorrect or nonsensical answers" and can be sensitive to slight tweaks in user input.¹¹⁶ Some AI systems are deemed high-risk because they may determine the educational and professional course of a person's life; if improperly used, they could violate the right to education and training and perpetuate discrimination.¹¹⁷ High-risk systems must comply with mandatory requirements for documentation, transparency, and human oversight.¹¹⁸ The AI European Act obliges providers and deployers (such as universities implementing an AIED system) to adopt a "human-oversight-by-design" approach.¹¹⁹ It is advocated that such human oversight by design should be introduced in the tender process.

The debate over regulating AI in the tender process and practice is rife with tensions, primarily between the drive for technological advancement and the imperative to protect fundamental rights and professional standards. It is argued that AI may stagnate legal evolution because its data is always behind current values, preventing the law from evolving consistent with present social policy.¹²⁰ AI lacks the moral compass that guides humans, precluding it from generating novel arguments based on changing circumstances.¹²¹ Over-reliance on AI by role players in the procurement sector could cement homogeneous biases in the law, replacing a mix of human perspectives with the perspective and biases of the data filtered by the AI creators.¹²² Restricting AI is necessary to ensure effective representation, especially in areas requiring empathy, emotional intelligence, and non-routine work.

114 Coe (2024) 24: Moses L B 'Artificial Intelligence in the Courts, Legal Academia and Legal Practice (2017) 91(7) *Australian Law Journal* 570.

115 Moses (2017) 572].

116 Cyran (2024) 12.

117 Colonna L 'Artificial Intelligence in Education (AIED): Towards More Reflective Regulation' (2025) *European Journal of Risk Regulation* 7.

118 Colonna (2025) I.

119 Colonna (2025) I.

120 Cyran (2024) 18.

121 Cyran (2024) 20.

122 Cyran (2024) 31.

Regulation is crucial to safeguard fundamental rights, democracy, and the rule of law.¹²³ Ethics and transparency are critical in data collection, use, and dissemination, especially regarding personal data concentration and liability.¹²⁴ Legal frameworks must prioritise effectiveness in outcomes and decision-making processes, ensuring AI adoption aligns with core educational values and goals.¹²⁵ There should be partnerships created with the private sector to enlarge the AI ecosystem, but new regulations are needed to secure the use of AI by private companies in terms of data use, privacy, and transparency.¹²⁶

A key argument against regulation is that it will undermine innovation in this fast-moving space.¹²⁷ It is argued that it is too early for a general system of AI regulation because the risks are still unknown, and hasty regulation risks stifling the development and implementation of useful solutions.¹²⁸ Furthermore, requiring *ex ante* transparency (explaining the decision process in advance) reduces the ability of AI to improve in use via machine learning, inevitably slowing down evolution.¹²⁹ Existing law, which allocates responsibility and liability to persons, can largely cope with immediate problems posed by AI.¹³⁰ There is a tension between AI regulation's mandate for human oversight and professional autonomy.¹³¹ The AI Act risks placing formal compliance responsibility on institutions (deployers), embedding duties into the everyday practices of teaching staff, which may increase workload and demand expertise that educators lack.¹³² This shift may undercut the role of teachers, potentially making them the "moral and legal crumple zone," absorbing the fallout of algorithmic decisions.¹³³

123 Colonna (2025) 20.

124 Lupo (2019) 87. Colonna (2025) 5.

125 Colonna (2025) 13.

126 C Reed 'How should we regulate artificial intelligence?' (2018) *Philosophical Transaction Royal Society* 2.

127 Reed (2018) 2.

128 Reed (2018) 2.

129 Reed (2018) 9.

130 Reed (2028).

131 Colonna (2025) 19.

132 Colonna (2025) 16.

133 Colonna (2025) 18.

A core element of emerging frameworks is ensuring human agency and oversight.¹³⁴ Regulation aims to safeguard fundamental rights by mandating appropriate human oversight, ensuring human reviewers do not simply "rubber-stamp" AI decisions, but instead exercise meaningful and independent oversight.¹³⁵ The principle of accountability mandates that stakeholders (developers, users, decision-makers) are responsible for the actions and decisions of AI systems under their control.¹³⁶ Transparency requires AI developers to provide clear information about the data sources, algorithms, and decision-making processes used by AI systems.¹³⁷ Transparency refers to the ability of AI systems to provide human-understandable explanations for their output.¹³⁸ Requiring transparency (particularly *ex ante* transparency) is justified where AI creates the risk that fundamental rights are breached.¹³⁹ Transparency serves as a suitable interim solution to some legal problems by explaining the options available to the technology and the choices it made between them.¹⁴⁰

8. THE WAY FORWARD

It must be acknowledged that apprehension will persist in certain circles regarding the growing use of AI in public procurement. The debate cannot focus solely on the tension between technological progress and the protection of fundamental rights and professional standards. While AI may risk stagnating evolution in some respects, particularly if over-relied upon, it also has the potential to enhance learning, improve legal services, and open new avenues for innovation.¹⁴¹ The challenge is to harness its strengths without compromising the ethical foundations of the legal system. A core limitation of AI is its lack of a moral compass.¹⁴² Algorithms operate on data, not values, and their outputs inevitably reflect the assumptions, blind spots, and biases of their creators. This makes it essential to develop robust checks and

134 Colonna (2025) 5.
 135 Colonna (2025) 5.
 136 Colonna (2025) 2.
 137 Reed (2018) 9.
 138 Reed (2018) 2.
 139 Reed (2018) 3.
 140 Reed (2018) 6.
 141 Cyran (2024) 18.
 142 Cyran (2024) 20.

balances to prevent over-dependence by those in the public procurement domain. Human reasoning, professional ethics, and contextual judgment must remain central, supplemented, rather than replaced, by AI-generated insights.¹⁴³ Effective regulation is therefore critical. Legal systems should establish frameworks that safeguard fundamental rights, democracy, and the rule of law.¹⁴⁴ Ethical standards and transparency requirements must be prioritised in the collection, use, and dissemination of data, especially when dealing with sensitive personal information and issues of liability.¹⁴⁵ State–private sector partnerships, combined with forward-looking regulatory tools, can help ensure privacy, accountability, and technological fairness.¹⁴⁶

Despite these challenges, the benefits of combating fraud and corruption in the tender process remain significant. AI can support research, enhance analytical skills, and streamline the process of applying for and awarding tender contracts.¹⁴⁷ Innovation in the tender process will remain possible if accompanied by principles of human agency and oversight. By maintaining a balanced approach that respects both human judgment and technological capability, the whole tender process can integrate AI in a way that strengthens, rather than undermines, justice.¹⁴⁸

8.1 Examples of AI in Public Procurement and Anti-Corruption

Several countries have begun adopting Artificial Intelligence (AI) and advanced data analytics to strengthen oversight and combat corruption in public procurement processes. Although the approaches vary, these initiatives share a common objective: improving transparency, detecting irregularities, and reducing opportunities for fraud in tendering systems. In China, AI has been integrated into public bidding and procurement platforms to identify irregularities and prevent corruption.¹⁴⁹ These systems analyse large volumes of tender documentation

143 Cyran (2024) 31.

144 Cyran (2024) 31.

145 Lupo (2019) 87; Colonna (2025) 5.

146 Reed (2018) 2.

147 Reed (2018) 2.

148 Colonna (2025) 5.

149 Paul Rakesh China AI Anti-Corruption Drive Hits Public Bidding available at <https://vellatimes.com/china-ai-anti-corruption-public-bidding/> (accessed 25 November 2025).

and procurement data to detect suspicious patterns that may indicate bid-rigging, collusion, or manipulation of tender processes. AI tools can also monitor decision-making committees and generate alerts for investigators when anomalies are detected.¹⁵⁰ Given the vast number of government tenders processed annually, China's approach recognises that manual oversight alone is insufficient and that automated risk detection can improve large-scale monitoring.

A more experimental approach has been undertaken in Albania, where an AI-generated system named *Diella* has been introduced as a virtual minister responsible for aspects of procurement transparency.¹⁵¹ Although largely symbolic and somewhat controversial, the initiative reflects an attempt to reduce reliance on human discretion in procurement decision-making and to improve trust in tender processes through automated oversight mechanisms.¹⁵²

In Brazil, AI is used more extensively in procurement monitoring. The Office of the Comptroller General of Brazil developed an AI-driven platform called *Alice*, which analyses thousands of procurement contracts to detect high-risk irregularities.¹⁵³ The system conducts automated audits, continuously monitors procurement activity, and flags contracts that exhibit indicators of corruption. In practice, *Alice* has triggered hundreds of investigations involving billions of rand worth of contracts by identifying suspicious patterns in tender data.¹⁵⁴

Similarly, Ukraine has implemented the *Dozorro* monitoring system, integrated with the national Prozorro procurement platform.¹⁵⁵ This system uses machine learning techniques to analyse procurement data and identify potential corruption risks, such as unfair

150 Paul Rakesh China AI Anti-Corruption Drive Hits Public Bidding available at <https://vellatimes.com/china-ai-anti-corruption-public-bidding/> (accessed 25 November 2025).

151 Delauney GWorld's first AI minister will eliminate corruption, says Albania's PM available at <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 25 November 2025).

152 Delauney GWorld's first AI minister will eliminate corruption, says Albania's PM available at <https://www.bbc.com/news/articles/cm2znzgwj3xo> (accessed 25 November 2025).

153 Robot Alice – Bid, Contract and Notice Analyser available at <https://oecd-opsi.org/innovations/robot-alice-bid-contract-and-notice-analyser/> (accessed 25 November 2025).

154 Robot Alice – Bid, Contract and Notice Analyser available at <https://oecd-opsi.org/innovations/robot-alice-bid-contract-and-notice-analyser/> (accessed 25 November 2025).

155 Yukins, Christopher, and Steven Kelman. "Overcoming Corruption and War - Lessons from Ukraine's ProZorro Procurement System." *NCMA Contract Management Magazine*. July 2022, 22-27.

supplier selection or collusive bidding behaviour.¹⁵⁶ By analysing procurement activity in real time, the system significantly strengthens oversight and accountability. Within Spain and the broader European Union, AI tools are being explored to detect irregular procurement patterns and support fraud prevention initiatives.¹⁵⁷ Regional governments, including those in Asturias and the Valencian Community, are experimenting with AI systems designed to automate document analysis and identify procurement anomalies.¹⁵⁸

Research initiatives in Hungary have also applied machine learning models to historical procurement datasets to uncover hidden patterns of corruption, enabling regulators to focus oversight on higher-risk tenders.¹⁵⁹ Nigeria is emerging as another example where technology-driven approaches are being adopted. The National Agency for Science and Engineering Infrastructure has begun implementing AI-based fraud detection systems to monitor procurement processes and prevent the diversion of public funds.¹⁶⁰ Collectively, these examples illustrate how governments are increasingly turning to AI-driven technologies to strengthen procurement oversight, detect corruption risks earlier, and enhance transparency in public tender processes.

9 RECOMMENDATIONS

Technology is already available and in use in various sectors and certain countries. Given the advancements in existence today, one must ask -why not fully utilise them. Procurement processes and procedures must be reviewed regularly and updated, especially the way they

156 Yukins, Christopher, and Steven Kelman. "Overcoming Corruption and War - Lessons from Ukraine's ProZorro Procurement System." *NCMA Contract Management Magazine*. July 2022, 22-27.

157 AI and public procurement in Spain: from anti-collusion screening to secure automation available at <https://www.osborneclarke.com/insights/ai-and-public-procurement-spain-anti-collusion-screening-secure-automation>. (accessed 23 October 2025).

158 AI and public procurement in Spain: from anti-collusion screening to secure automation available at <https://www.osborneclarke.com/insights/ai-and-public-procurement-spain-anti-collusion-screening-secure-automation>. (accessed 23 October 2025).

159 European commission Hungary AI Strategy Report available at https://ai-watch.ec.europa.eu/countries/hungary/hungary-ai-strategy-report_en (accessed 23 October 2025).

160 NASENI Empowers Anti-Corruption with Tech Tools available at <https://lagosvoice.com/naseni-empowers-anti-corruption-with-tech-tools/>(accessed 23 October 2025).

offer the tender process, and incorporating Artificial Intelligence (AI) into the process could be a significant step in the right direction.

As previously mentioned, AI has the potential to greatly assist individuals, companies and government departments by enhancing their understanding of how digital tools can be employed in the issue and completion, as well as the awarding of tenders. While challenges and concerns undoubtedly exist, the potential AI brings without considering its potential merits should not be rejected. Opposition to the use of AI is expected, particularly around issues of reliability and bias. However, with thoughtful implementation and proper safeguards, AI may work to our advantage. AI has the potential to improve lives and streamline time-consuming tasks. Both in the application and awarding of tenders. Although it should not replace human professionals, if AI can help perform certain tasks more efficiently, while ensuring that information is verified and protected against tampering, it could lead to fairer outcomes in the way tenders are awarded. It is therefore essential that all the role players in the tender systems are made aware of these technologies and receive comprehensive training on their use and limitations. It is conceded that the process will always require a human element. However, AI's ability to process and filter vast amounts of information can support and even enhance human reasoning. When used responsibly, AI can become an invaluable tool to combat tender fraud.

AI can make the procurement process more efficient without compromising its core principles.¹⁶¹ Developing specific rules governing the reliability of AI and developing rules to ensure that programming biases are limited. Legal research in this area should be encouraged and supported. It must be emphasised that such AI systems are not a silver bullet. It cannot run independently and will require human assistance. However, it presents a powerful opportunity to at least attempt to reduce the scourge of corruption, fraud and even death caused. Nevertheless, issues such as programming bias and data integrity must be addressed, particularly regarding the right to privacy and other rights that may be affected.

161 Krausova (2017) 61.

10. CONCLUSION

The pursuit of algorithmic governance in South African public procurement presents a viable strategy for addressing the vulnerabilities associated with human discretion.¹⁶² The scale of financial loss, ranging from the estimated R700 billion lost to corruption since 1994 to documented cases such as the R88 million tender fraud within the South African Police Service and the R3 billion procurement irregularities in the Department of Public Works, demonstrates the urgent need for innovative oversight mechanisms.¹⁶³

The implementation of robust Artificial Intelligence (AI) systems, grounded in principles of algorithmic integrity that emphasise transparency and accountability, offers the potential to shift financial oversight from reactive auditing to predictive risk management.¹⁶⁴ However, a hybrid approach that combines technological systems with human oversight is likely to be the most effective model. Comparative examples from countries such as China, Brazil, and Albania demonstrate the practical potential of AI in strengthening procurement monitoring and reducing opportunities for corruption. Nevertheless, technological intervention alone is not a panacea.

The persistent failure of governmental bodies to effectively enforce existing legislation, together with the continued operation of organised cartels and corrupt networks, particularly within sectors such as construction,¹⁶⁵ indicates that AI must be implemented alongside broader institutional reforms.¹⁶⁶ Without stronger political will, improved protection for witnesses and whistle-blowers, and better resourcing of investigative and prosecutorial institutions,¹⁶⁷ corrupt practices such as extortion, bribery, and politically motivated contract awards are likely to persist.¹⁶⁸

Ultimately, for AI-driven procurement oversight to succeed in South Africa, technological capacity must be aligned with ethical governance and sustained political

162 Ayobami *et al* (2023) 131.

163 Political Bureau (2011) <https://iol.co.za/news/2011-09-20-r3bn-tender-fraud-found-by-siu>.

164 Ayobami *et al* (2023) 134.

165 Council for the Built Environment (CBE) (2024) at <https://cbe.org.za/fraud-in-the-south-african-construction-industry-a-growing-challenge> (accessed 23 October 2025).

166 Wesso & Hamman (2022) 150.

167 Wesso & Hamman (2022) 150.

168 Corruption-Watch (2015)³⁴ available at <https://www.corruptionwatch.org.za>. (accessed 23 October 2025).

commitment. In this regard, algorithmic integrity may become a cornerstone of modern public financial management and a critical tool in the fight against tender corruption.¹⁶⁹

169 Ayobami *et al* (2023) 137.