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Public Procurement Audits:
Enhancing Transparency and Value for Money

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The Asian Journal of Government Audit is a popular resource for the SAI community for promotion of sound and effective audit systems. This bi-annual Journal has been in circulation since 1983 and has provided a forum to ASOSAI members for discussion and dissemination of good practices. The Journal accepts articles, special reports, news items and other materials from member SAIs of ASOSAI.

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From the desk of ASOSAI Chair



Mr. K. Sanjay Murthy

Chairman of ASOSAI & Comptroller and Auditor General of India

Dear Members of the ASOSAI Community,

I am pleased to reach out to you once again through the October 2025 issue of the ASOSAI Journal. The theme for this edition, “Public Procurement Audits: Enhancing Transparency and Value for Money,” is both timely and important.

Public procurement is an area where public funds are most at risk. Weaknesses in procurement processes lead to not only financial loss but also cause a loss of faith in governance structures. To serve the public interest, every procurement must be guided by transparency, efficiency, and accountability. However, issues such as corruption, collusive bidding, and procedural non-compliance often undermine these goals. Such practices damage public trust and reduce the quality of services delivered to citizens.

In an era of escalating fiscal pressures and complex supply chains, robust procurement audits are not merely technical exercises but vital instruments for fostering trust, curbing inefficiencies, and maximizing societal returns on taxpayers’ money. Audit should blend rigorous compliance scrutiny with forward-looking performance assessments—to assure value for money in public contracting. This would encompass systematic scrutiny of contracts across all stages—planning, tendering, execution, and closure—supported by advanced data analytics and AI-driven anomaly detection to identify red flags and prevent fraud. Further, SAIs should strive to recommend frameworks to promote the adoption of sustainable and green procurement. Adoption of a new manual for auditing procurement and imparting training would help SAIs enhance the quality of procurement audit.

I hope this issue of the ASOSAI Journal will offer useful insights and practical guidance in this direction. I sincerely thank all contributors and member SAIs for their valuable inputs to this edition.

With best wishes for the year ahead,

Shri K Sanjay Murthy

Comptroller and Auditor General of India & ASOSAI Chairman

From the desk of ASOSAI Secretary General



Mr. HOU Kai

Secretary General Of ASOSAI And Auditor General Of The National Audit Office Of the People's Republic Of China

Government procurement (public procurement) plays an important role in global economic development. According to the World Bank statistics, the world's total government procurement accounts for 10-15% of global GDP, and this proportion is even higher in some developed economies. Such substantial economic scale makes government procurement activities and their associated regulations and policies highly impactful in the international economic landscape. Through globalized procurement activities, government procurement facilitates international competition, innovation, and supply chain integration, thereby fostering deep integration of global economies. It promotes gradual and wider opening of markets for mutual benefits and shared development.

The evolution of government procurement systems across the world has a long history. As early as the 18th century in Europe, issues brought by royal household needs, economic operations, and warfare, including opacity and corruption in procurement, prompted countries to establish unified government procurement agencies to streamline expenditures and enhance regulatory oversight. In the post-World War II era, with global economic reconstruction and trade liberalization, the trade barriers created by those established national procurement rules became increasingly significant. With the acceleration of economic globalization, international frameworks such as the World Trade Organization's Agreement on Government Procurement (GPA) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) have matured, imposing principles of openness and mutual benefit on member states and encouraging the steady development of market-oriented, law-based, and internationally aligned government procurement environments. The function of government procurement has now expanded far beyond economic and trade considerations, and evolved from a tool focused solely on value-for-money objectives into a comprehensive policy instrument that advances economic, social, and environmental strategic goals, reflecting the continuous progress in global governance, market economy, and public administration.

Today, countries worldwide are vigorously promoting principles of transparency and fair competition in government procurement. The integrity and efficiency of a nation's procurement system serve as key indicators of its business environment and governance quality. This issue of the Asian Journal of Government Audit aims to share best practices in auditing government procurement and related fields from supreme audit institutions across Asia. By doing so, we seek to raise awareness of the importance of government auditing in this domain and foster audit experience and knowledge sharing, and capacity building.

We believe that, through collaborative efforts in conducting government procurement audits, supreme audit institutions across Asia will facilitate mutual learning in procurement practices. By heading the right direction of economic globalization, embracing openness and inclusiveness, and taking pragmatic actions to address challenges, we will collectively embrace opportunities with open minds, pursue shared development and secure a prosperous future through opening-up and cooperation.

From the desk of the Editor



Mr. Vimalendra Anand Patwardhan,
Director General (International Relations)
Office of the Comptroller and Auditor General of India

Dear Colleagues & Readers,

It is a pleasure to present the October 2025 issue of the Asian Journal of ASOSAI centered on the theme **“Public Procurement Audits: Enhancing Transparency and Value for Money.”**

Public procurement represents one of the most significant areas of government expenditure and is a vital mechanism for delivering public services. However, it is also one of the area's most vulnerable to inefficiencies, corruption, and misuse of public funds. In this context, public procurement audits serve as a powerful tool for ensuring that every public expenditure contributes meaningfully to development outcomes while maintaining transparency, fairness, and accountability.

This edition brings together a diverse range of perspectives and experiences from SAIs across the region, showcasing innovative audit methodologies, best practices, and lessons learned in enhancing value for money through procurement oversight. The contributions highlight the growing use of data analytics, e-procurement platforms, and risk-based audit approaches in strengthening audit effectiveness.

We are privileged to feature messages from the Chairman and the Secretary-General of ASOSAI, SAI China, who continue to inspire and guide our community with his leadership and insights. I also wish to thank SAI Japan, ASOSAI's Capacity Development Administrator, for keeping us updated on the training initiatives and capacity-building efforts being undertaken across the region.

I would like to extend my sincere appreciation to all authors and contributors for their valuable insights, and to the member SAIs who have shared their institutional updates, reflecting the continuous learning and collaboration that define the ASOSAI community.

I am confident that readers will find this edition informative and relevant to their professional needs. Your feedback and suggestions remain a cornerstone of our efforts to continuously improve the Journal. I also encourage all readers to follow our X handle @AsosaiJournal and visit our website asosaijournal.org to access current and archived editions.

I look forward to your continued engagement and contributions for the forthcoming April 2026 issue of the *Asian Journal of ASOSAI*.

CONTENTS

I	From the desk of ASOSAI Chair
II	From the desk of ASOSAI Secretary General
III	From the desk of the Editor
01	Theme Articles
02-05	Enhancing Value for Money (VfM) through Procurement Audits: Lessons from Indonesia's Toll-Road Public Private Partnership (PPP) Cases - SAI Indonesia
06-09	Public Procurement Audits: Enhancing Transparency and Value for Money - SAI India
10-11	From Wasteful Spending to Value for Money: Auditing Public Procurement for Transparency and Efficiency - SAI India
12-15	Can E-Procurement Solve the Procurement Dilemma? (Case Study of Indonesian e-Catalogue) - SAI Indonesia
16-21	Anomaly detection as a risk-triage tool in e-purchasing audit - SAI Indonesia
22-26	Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia
27-32	An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia
33-36	China's Audit Institutions Promote Orderly Operation of Government Procurement and Efficient Use of Public Funds - SAI China
37-42	Value for Money (VfM) - SAI Iraq
43-45	A Symphony of Oversight: The Role of Procurement Audits in Safeguarding Public Value – A Case from the Maldives - SAI Maldives
46-47	Public Procurement – a High-Risk Area - SAI Serbia
48-53	Public Procurement Audits: Enhancing transparency and Value for Money, and the Role of the State Audit Bureau in Achieving That - SAI Qatar
54-55	The Future of Public Procurement Audit in the BANI World: Redefining Integrity through the 5Vs Audit Criteria - SAI Thailand
56-59	The role of supreme audit institutions in the oversight and audit of green public procurement: transparency and accountability - SAI Vietnam
60-64	ASOSAI News
65-82	Featured Articles
83-84	Tentative Schedule Of Asosai Capacity Development Activities
85-89	Email/ Web Pages of member SAIs

Theme Articles

Enhancing Value for Money (VfM) through Procurement Audits: Lessons from Indonesia's Toll-Road Public Private Partnership (PPP) Cases - SAI Indonesia

Nafis El Fariq, SAI Indonesia

Introduction

In Indonesia's national development plan (RPJMN), infrastructure is divided into economic, social, and supporting categories, each prioritized to enhance connectivity, economic productivity, and social welfare. Traditionally, provision relied on conventional procurement (PBJ) funded by the state budget (APBN), where government agencies directly contracted private firms under strict regulations. Yet, fiscal constraints and rising demand have made this model insufficient. To address the gap, Indonesia increasingly turns to Public-Private Partnerships (PPPs), which enable private entities to finance, build, and operate infrastructure under long-term arrangements, thereby complementing conventional PBJ.

Globally, PPPs are viewed as governance instruments that combine public oversight with private sector efficiency, optimizing resources and sharing risks. Recent scholarship underscores their role in stakeholder coordination and sustainable development (De Matteis et al., 2024). In Indonesia, PPPs serve not only as financing tools but also as policy instruments to accelerate infrastructure delivery—particularly toll roads, which are vital for reducing logistics costs and spurring regional growth (World Bank, 2018).

The governance of PPPs in Indonesia is supported by a layered regulatory framework. Presidential Regulation (Perpres) No. 38 of 2015 establishes core PPP principles—transparency, fairness, competition, and Value for Money (VfM)—while LKPP Regulation No. 29 of 2018 sets detailed procurement procedures for private entities. Sector-specific rules strengthen this framework: Ministry of Public Works and Housing Regulation (Permen PUPR) No. 01/PRT/M/2017 regulates toll road PPP procurement, and Government Regulation (PP) No. 23 of 2024 consolidates toll road governance, aligning sectoral rules with national PPP policy objectives. Together, these instruments provide standardized processes while balancing investor attractiveness and public accountability.

Nevertheless, regulations alone cannot secure effective outcomes. As Song et al. (2023) note, PPPs require governance mechanisms that go beyond financial structuring to protect the public interest. Central to this is the concept of VfM, which ensures projects deliver optimal benefits relative to costs. Yescombe (2011) argues that PPP procurement is justified only when it demonstrates superior VfM compared to conventional methods. Recent evidence suggests that VfM assessments often overemphasize cost savings at the expense of broader measures such as service quality and sustainability (Zhao et al., 2023). Without robust VfM analysis, PPPs risk being perceived as costly financing arrangements rather than legitimate governance tools.

The procurement stage is especially decisive, as it sets contract design, risk allocation, and performance standards. Inadequate oversight here undermines VfM, leading to inefficiencies or poor service delivery. Recognizing these challenges, the Badan Pemeriksa Keuangan (BPK), Indonesia's Supreme Audit Institution (SAI), has expanded its audit scope beyond conventional APBN-funded procurement to include PPP projects. This marks a significant novelty, as PPPs—unlike conventional procurement—rely on more flexible regulatory mechanisms to attract private investment. Such flexibility, while necessary, creates accountability risks, making audits essential not only to safeguard transparency but also to ensure PPPs deliver real VfM for the public.

Methods

This study employs a qualitative case study of toll-road PPP projects in Indonesia, drawing on anonymized audit evidence. It examines how BPK's procurement audits enhance transparency, accountability, and value for money (VfM). Audit findings, recommendations, and challenges are analyzed against theoretical and regulatory frameworks to show how audits can address governance gaps and foster institutional learning. In this way, the study highlights the evolving role of SAI as both compliance watchdogs and enablers of better procurement practices.

Case Study

Between 2015 and 2020, Indonesia experienced a substantial expansion of toll road development under the PPP framework, resulting in the successful construction of 476.33 kilometers of new toll roads. This achievement was further reinforced by the toll road quality index reaching 4.6 out of 7, placing it among the best and underscoring the effectiveness of PPPs in delivering both quantity and quality in infrastructure provision (ADB, 2020). The procurement of these projects was regulated by Perpres No. 38 of 2015 on PPPs and its implementing ministerial regulations, which set out principles of transparency, accountability, competition, and VfM. Within this regulatory environment, the BPK initiated audits to examine whether toll road PPP procurements adhered to these principles while also meeting legal and technical requirements. The audit design combined compliance and performance evaluation, focusing on sequencing of procurement processes, fairness of competition, and the adequacy of cost benchmarking—particularly through the preparation and use of the Owner's Estimate (OE). As a reference for audit practice, it is important to define the essential elements of an ideal PPP procurement process within Indonesia's regulatory framework and also guided by international standards issued by the International Organization of Supreme Audit Institutions (INTOSAI), particularly the Performance Audit Standard (ISSAI 3000) and the Compliance Audit Standard (ISSAI 4000).

Enhancing Value for Money (VfM) through Procurement Audits: Lessons from Indonesia’s Toll-Road Public Private Partnership (PPP) Cases - SAI Indonesia

Guided by the principles set out in Perpres No. 38/2015, such a process must safeguard public accountability, ensure fair competition, and secure VfM. The following table summarizes the key dimensions that should be present in every PPP procurement to strengthen governance and ensure auditability.

Table 1. Key Elements of PPP Procurement

Dimension	Key Elements
Regulatory Compliance	a. Procurement follows Perpres 38/2015 and ministerial regulations; b. Sequencing requirements (e.g., Location Determination before tendering) strictly observed;
Transparency & Documentation	a. Public announcement of project opportunities; b. Complete records (feasibility studies, OE, concession drafts, evaluations); c. Dual-format archiving for audit trail.
Fair Competition	a. Open, competitive tendering as the default; b. Prequalification with objective, published criteria (technical, financial, legal); c. Independent bid evaluation and conflict-of-interest safeguards.
Value for Money (VfM)	a. OE used as benchmark for negotiations and tariff/concession period b. Independent review of financial models for efficiency and risk allocation c. Contract aligns incentives with performance
Risk Allocation & Contract Integrity	a. Risks assigned to parties best able to manage them b. Concession agreements define scope, performance standards, tariff adjustments, dispute resolution c. Penalties for non-performance, incentives for efficiency
Public Accountability & Oversight	a. Disclosure of procurement outcomes and contracts b. Independent monitoring by regulators (e.g., BPJT for toll roads) c. SAIs (BPK) granted full access to documents for audit

The anonymized cases of three toll road projects—X, Y, and Z—illustrate typical governance challenges that arise in PPP procurements based on BPK’s audit report (2024). The use of anonymized labels is intended to safeguard the confidentiality of the audited entities and project details, in line with prevailing audit regulations and ethical standards. This ensures that the analysis focuses on systemic governance issues rather than attributing shortcomings to specific parties, while still providing valuable lessons for policy and practice. To provide clarity, the cases are summarized in the following table:

Table 2. Summary of Cases

Toll Road Section	Condition	Cause	Effect	Violated Criteria
X Toll Road	Tendering completed in 2016 before the Location Determination was issued in 2017	Premature procurement process without securing land approval	Route extension by 9 km, higher acquisition and investment costs, project delays	Article 36 of Presidential Regulation No. 38/2015
Y Toll Road	Only one bidder qualified; negotiations reduced investment but raised overhead and charges	Weakness in applying OE as cost benchmark	Price reasonableness undermined, lack of transparency in final investment structure	Principles of transparency and VfM in PPP regulations
Z Toll Road	No OE document available for audit reference	Poor documentation and governance of procurement records	Inability to verify cost reasonableness, reduced credibility of negotiation and compliance test	Requirement of adequate documentation in PPP procurement
		procurement records	credibility of negotiation and compliance test	

From these cases, BPK issued several key recommendations. The sequencing of procurement must strictly follow legal requirements, ensuring that prerequisites such as Location Determination are fulfilled before tendering begins. The preparation and use of the OE should become a mandatory benchmark for negotiations, supported by transparent documentation and rigorous evaluation. Furthermore, secure and dual-format (digital and physical) archiving systems are necessary to preserve procurement records and safeguard auditability.

Enhancing Value for Money (VfM) through Procurement Audits: Lessons from Indonesia's Toll-Road Public Private Partnership (PPP) Cases - SAI Indonesia

Beyond technical fixes, the findings carry important policy implications. They underscore the need for closer alignment between regulatory provisions and procurement practices, institutional strengthening in cost evaluation and negotiation, and improved document governance. For BPK, this represents not only an expansion of its audit mandate—traditionally focused on conventional procurement financed by the state budget (APBN)—but also a novelty in its oversight role. By extending audits to PPP projects, BPK helps ensure that accountability and governance extend equally to infrastructure funded through private capital participation, thereby reinforcing public trust and advancing more sustainable procurement practices in Indonesia's toll road sector.

Lesson Learned, Challenges and Opportunities

From these cases, several lessons can be drawn that are relevant not only for Indonesia but also for other SAls conducting procurement audits in PPP contexts. First, procurement stages must be sequenced properly, as premature tendering exposes projects to route changes, cost escalation, and contractual risks. Second, the use of OE and data-driven analysis is vital to ensure price reasonableness, negotiation credibility, and transparency in tariff and concession arrangements. Third, systematic documentation and archiving are essential to provide a reliable audit trail and institutional memory across the long lifecycle of PPP contracts. These lessons highlight that procurement audits, when well executed, serve not only as compliance checks but also as instruments for strengthening governance and safeguarding value for money.

Nevertheless, auditing PPPs in Indonesia presents considerable challenges. The large number of operational toll roads compared to the limited pool of qualified auditors necessitates prioritization, leaving some risks insufficiently examined. The complexity of PPPs—shaped by diverse legal, financial, technical, and socio-political factors—demands a multidisciplinary approach and significant resources, while incomplete documentation such as missing OE weakens VfM assessments. At the same time, opportunities are emerging: refinements in Indonesia's PPP regulatory framework, growing institutional capabilities, and lessons from international best practices (e.g., UK, Canada, Australia) provide pathways to strengthen audit methodologies. Furthermore, the adoption of integrated assurance models, where oversight bodies coordinate and share results, can reduce duplication and enhance accountability, ensuring more holistic governance of PPP infrastructure projects.

Conclusion and Way Forward

In conclusion, the Indonesian experience with PPP procurement audits demonstrates both the promise and the complexity of embedding accountability and VfM into infrastructure delivery. While the regulatory framework anchored in Perpres No. 38/2015 provides a solid foundation, practical implementation reveals persistent weaknesses in sequencing, documentation, and cost benchmarking that expose projects to financial and governance risks. The BPK's expansion into PPP audits marks a significant step in aligning oversight with evolving procurement models, reinforcing the principle that public accountability must extend equally to projects financed through private capital. By learning from anonymized case studies and integrating best practices from other jurisdictions, Indonesia can strengthen its audit methodologies, foster institutional learning, and ensure that PPPs fulfill their intended role as instruments of sustainable infrastructure provision that serve the broader public interest.

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Enhancing Value for Money (VfM) through Procurement Audits: Lessons from Indonesia's Toll-Road Public Private Partnership (PPP) Cases - SAI Indonesia

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Public Procurement Audits: Enhancing Transparency and Value for Money - SAI India



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Introduction

Public Procurement constitutes the process through which a government acquires goods, works, and services to meet its developmental and operational needs. Public Procurement accounts for a significant share of public spending; therefore, it directly impacts a country's economic growth, service delivery, and governance outcomes. Globally, procurements are estimated at US\$9-10 trillion a year¹. Given the vast scale of procurement activities, ensuring transparency, efficiency, and fairness is critical to safeguard public funds and build trust among stakeholders. However, procurement systems often face challenges such as inadequate competition, procedural irregularities, collusion, cost overruns, and risks of corruption or favoritism. Nearly 10-25 per cent² of the value of public contracts is thought to be lost to corruption, inefficiencies or mismanagement.

In this context, public procurement audits play a vital role by delivering independent oversight, promoting accountability, and enhancing value for money in public expenditure. The true effectiveness of procurement audits lies not only in uncovering irregularities but in generating actionable insights into systemic lapses and recommending practical reform measures.

A Regulatory Paradigm for Public Procurement

(a) Global Regulations: At the global level, instruments such as the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Public Procurement (2011) (UNCITRAL, 2011) and the World Trade Organisation (WTO) Agreement on Government Procurement (GPA) (WTO, 2014) set widely recognized standards for transparency, fairness, and competition.

The INTOSAI Working Group on Public Procurement Audit (WGPPA³), established in 2016, promotes knowledge sharing among Supreme Audit Institutions (SAIs) and develops standards and methodological guidance⁴ on auditing public procurement. Its key objectives include fostering the exchange of experience, creating professional pronouncements within the INTOSAI Framework of Professional Pronouncements (IFPP), and producing methodological documents to improve the use of budget funds in procurement.

(b) Public procurement and Sustainable Development Goals: Public procurement is a key driver in achieving the United Nations Sustainable Development Goals (SDGs). The 2030 Agenda explicitly recognizes its role under SDG 12.7, which calls for promoting sustainable procurement practices in line with national priorities. By integrating sustainability into procurement policies, governments can support multiple goals—such as SDG 13 (Climate Action) through green procurement, SDG 8 (Decent Work and Economic Growth) by encouraging fair labour practices, and SDG 5 (Gender Equality) by promoting women-led enterprises.

(c) Regulatory Framework in India for Public Procurement: India's public procurement framework is anchored in the General Financial Rules (GFR), 2017 and supported by detailed Procurement Manuals for goods, works, and services along with Central Vigilance Commission (CVC) guidelines. Policies like the Public Procurement (Preference to Make in India) Order 2017, and the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 promote domestic industry and small enterprises. Several sectors (e.g.- Defence, Railways, Central Public Works Department (CPWD)) follow their own procurement codes, while states such as Rajasthan have enacted laws like the Rajasthan Transparency in Public Procurement (RTPP) Act, 2012. Digital platforms—Government e-Marketplace (GeM) and the Central Public Procurement Portal (CPPP)—have further strengthened transparency and efficiency.

1 World Bank+2Open Contracting Partnership+2

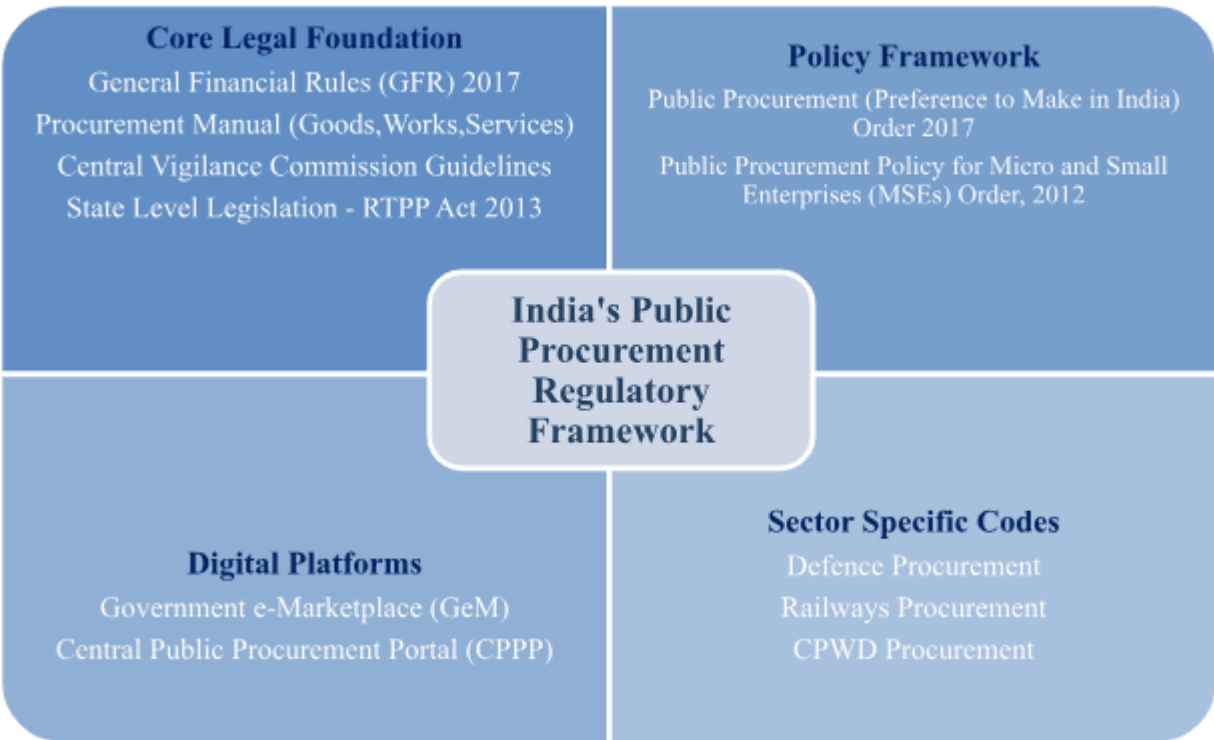
2 World Economic Forum+1

3 <https://intosairussia.org/intosai/working-group-ppa/about-working-group-ppa.html>

4 <https://intosairussia.org/documents/85/WG-PPA/182/Guid-5280-Guidance-for-audits-of-Public-Procurement.pdf?preview=1>

5 <https://sdgs.un.org/goals/goal12>

Public Procurement Audits: Enhancing Transparency and Value for Money - SAI India



(d) Public Procurement Process: Procurement in India is decentralized, with line departments and local bodies handling planning, tendering, evaluation, and contract management under central/state rules, e-portals, and treasury systems. At the district level, District Collectors and Zilla Parishads (District Councils) handle procurements through tender committees and departmental units, under treasury control and state oversight. Moving further down, at the block level, Block Development Officers (BDOs) manage procurement related to flagship programmes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREG) supported by block-level technical and finance committees. Finally, at the village level the Gram Panchayats (village level elected bodies) undertake small-scale procurements for community works, where transparency is promoted through social audits, wall disclosures, and Local Fund Audit mechanisms.

To strengthen efficiency and transparency, the Government introduced two platforms- Government e-Marketplace (GeM) and Central Public Procurement Portal (CPPP). GeM is a unified online marketplace where government entities make direct purchases of goods and services from vendors. It enables better price discovery, reduces the scope for corruption, and provides a level playing field for businesses, especially SMEs and startups, to sell to the government. Further, CPPP is a platform for managing the tendering process, including publishing tender notices, managing bid submission, and tracking tender status. It streamlines the procurement process, reduces costs and ensures a wider reach of tender enquiries. GeM and CPPP systems are integrated into a single Unified Procurement System (UPS), offering buyers and sellers a consolidated experience for various public procurement needs.

Oversight on the procurement process is exercised through audits carried out by the SAI, complemented by government-led social audits and vigilance mechanisms under the Central Vigilance Commission. The state-specific rules and simplified local procedures shape variations at the grassroots level. Good practice signals include transparent policies, e-procurement with audit trails, explicit powers, vendor databases, robust audits, and public disclosure.

Public Procurement Audits: Advancing Transparency, Accountability, and Value for Money

Transparency is widely recognised as a precondition for accountability in procurement systems. Lack of openness enables collusion, bid-rigging, and undue influence, resulting in inflated costs and substandard outcomes. Conversely, transparent processes stimulate competition, enhance supplier confidence, and provide citizens with oversight opportunities. Audits serve as a corrective mechanism where transparency deficits exist. By exposing irregularities, publishing findings, and recommending reforms, they not only deter misconduct and corruption but also encourage competition and ensure compliance with the International Standards. Moreover, public disclosure of audit outcomes strengthens citizen trust and reaffirms the government's commitment to stewardship of public funds.

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The notion of Value for Money (VfM) in public procurement is not confined to securing the lowest-priced bid; rather, it entails a holistic evaluation of procurement outcomes. VfM is commonly assessed across three interrelated dimensions. Economy reflects the ability to acquire resources at the least possible cost while preserving quality standards. Efficiency emphasises deriving maximum output from available inputs. Effectiveness measures the extent to which procurement objectives are achieved and deliver sustained benefits. Procurement audits play a vital role in balancing cost with quality, timeliness, and long-term impact, ensuring public funds are utilised in a manner that advances both accountability and development goals.

Methodology of Procurement Audit

A well-designed procurement audit typically follows a structured approach as under:

- (a) Desk Review: Collection and analysis of procurement policies, contract files, and e-procurement data; creation of a guard file.
- (b) Risk Profiling: Identification of high-value or high-risk contracts considering aspects such as single bids, repeat awards, or cost escalations.
- (c) Field Verification: Examination of tender evaluation, contractor's performance, delivery records, and payment vouchers.
- (d) Criteria-Condition-Cause-Effect Analysis: For each audit finding, the benchmark (criteria) is specified, the deviation (condition) is described, reasons (cause) are identified, and consequences (effect) are analysed.
- (e) Systemic Assessment: Beyond isolated cases, auditors seek to determine whether deficiencies reflect broader weaknesses in planning, oversight, or control systems.

Such an approach ensures that audit findings are evidence-based, analytically sound, and carry a good assurance value for decision-makers.

Public Procurement Audits carried out by the SAls

(a) UK National Audit Office (NAO): NAO's thematic work on 'efficiency and competition in public procurement (2023-2024)' examined central purchasing, competition, and frameworks, identifying risks where over-reliance on frameworks or limited open competition reduces VfM and transparency. These reports emphasise the need for central oversight and better contract registers to save public funds (National Audit Office (NAO)).

(b) Netherlands Court of Audit: The audits of 'vaccine procurement and pandemic procurement arrangements (2020-2024)' highlighted preparedness, transparency in emergency procurement and governance lessons for future procurements. National SAI case studies show a similar focus on emergency/health procurement, procurement data quality, and contract governance (Netherlands Court of Audit).

Public Procurement Audits carried out by the SAI India during the last five years

SAI, India offers rich case studies of procurement audit practice. Recent reports illustrate both achievements and shortcomings. Some of them are as follows:

- Performance Audit on Implementation of eProcurement system in Tamil Nadu (Report No. 4 of 2023) — Examines the state e-procurement portal's controls, competition levels, Earnest Money Deposit/Information Technology issues and whether digitization delivered transparency and efficiency.

https://cag.gov.in/webroot/uploads/download_audit_report/2023/Report-No-4-of-2023-eProcurement-English-0668269bb4dda56.82968764.pdf. (Comptroller and Auditor General of India)

- Performance Audit of Procurement and Supply of Drugs in Central Government Health Scheme (CGHS) (Report No. 17 of 2022) — Reviews procurement planning, supplier selection, storage and quality-control lapses affecting timely and value-for-money drug supplies.

<https://cag.gov.in/en/audit-report/details/116636>

- Performance Audit — Procurement, Storage & Delivery of Wheat to FCI (chapter/report materials, 2024-25 reporting cycle) — Detailed chapter on wheat procurement highlighting procurement planning, hire of storage, and associated cost/efficiency weaknesses.

https://cag.gov.in/uploads/download_audit_report/2025/Chapter-3-Performance-Audit-on-Procurement-%2C-Storage-and-Delivery-of-wheat-to-FCI-068b56e065402f3.29032578.pdf

Public Procurement Audits: Enhancing Transparency and Value for Money - SAI India

- Performance Audit on Assessment and Utilisation of Locomotives & Production and Maintenance of LHB Coaches (Indian Railways) (Report No. 2 of 2020) — Contains a procurement chapter reviewing specification, tendering and acquisition of locomotives/coaches and related contract-management deficiencies.

https://cag.gov.in/uploads/download_audit_report/2020/2%20of%202020-union-Rly-E-05f808bbdb35b5.88432958.pdf

- Performance Audit — Fleet procurement / Electric Buses and related procurement issues (Report No. 4 of 2024 — selected State / city reports which examine e-bus procurement) — Reviews tendering, technical specification formulation, and contract management shortcomings in large e-bus procurements.

https://cag.gov.in/uploads/download_audit_report/2024/Report-No.-4%2C-2024%2C-PA-on_FDTC_English-068b1773fe671d0.61855930.pdf

- Performance Audit on Public Health Infrastructure & Management of Health Services (State reports, Report No. 6 of 2024) — Includes chapters evaluating procurement of drugs, equipment and services and highlights procurement planning and quality-assurance gaps.

<https://cag.gov.in/en/audit-report/details/121360>

- Performance Audit — Selected Compliance & PSU procurement chapters (2020–2023 consolidated reports) — Several Union and State consolidated compliance audits and Public Sector Undertaking performance audits in this period include procurement chapters (procurement of goods/services, contract governance, non-adherence to GFRs) — see SAI, India consolidated indexes and chapter downloads for 2020–2024 cycles. (SAI, India consolidated overview / chapters):

https://cag.gov.in/uploads/performance_activity_report/Performance-Report-of-SAI-India-2022-23-1-066ab5121c70bf4-42780497.pdf

Challenges in Procurement Auditing

Procurement auditing, despite progress, continues to face challenges such as missing documentation, query-driven approaches dependent on auditee data, risks of corruption and collusion, biased specifications favouring bidders, and difficulties in analysing large-scale e-procurement data, all of which undermine transparency, independence, and effective oversight.

Emerging Tools and Innovations

To strengthen procurement oversight, SAI is adopting innovations such as data analytics/AI for anomaly detection, e-procurement audit modules for direct data access, cross-verification with other agencies, systemic thematic audits of key sectors, and stronger peer review mechanisms—enhancing efficiency, credibility, and policy impact of audits.

Way Forward: Recommendations

The future of procurement audits lies in moving from fault-finding to system strengthening by focusing on systemic weaknesses, criteria-based analysis, and dissemination of best practices. This requires continuous auditor capacity building, adoption of advanced technologies (data analytics, blockchain, AI), robust follow-up on recommendations, and international knowledge sharing to enhance transparency, accountability, and global harmonization in procurement auditing.

From Wasteful Spending to Value for Money: Auditing Public Procurement for Transparency and Efficiency - SAI India

Mr. K. Subramaniam, Retired Director General and Consultant, SAI India
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Public procurement represents 13-15% of GDP in developed countries and 20-25% in developing nations, translating into vast contracts for goods and services. A robust system is essential for national security, public health, infrastructure quality, and economic growth. It bridges public needs with private suppliers, balancing user satisfaction, private sector opportunities, and efficient government spending. Procurement also advances social goals like localization, support for small industries, environmental sustainability, human rights, and gender equity. In many jurisdictions, including those in Asia, governments leverage procurement to promote inclusive growth, such as reserving portions of contracts for micro, small, and medium enterprises (MSMEs) or mandating eco-friendly materials to align with ESG (Environmental, Social, and Governance) frameworks. This multifaceted role underscores the need for audits that not only check compliance but also evaluate broader impacts on societal outcomes.

However, flawed systems can deter ethical firms while fostering corruption, cartels, and poor performers. Globally, procurement is vulnerable to waste and mismanagement, placing it high on the risk radar for Supreme Audit Institutions (SAIs). SAIs bear the responsibility of assuring value for money (VFM) in public spending, often drawing on international standards like those from INTOSAI (International Organization of Supreme Audit Institutions) to guide their assessments. These standards emphasize principles such as economy, efficiency, and effectiveness, which are integral to mitigating risks in procurement processes.

Concept of Value for Money

VFM ensures the procured item or service meets user needs at optimal cost and time—delivering the right product, at the right price, and the right time. This concept extends beyond mere cost savings; it encompasses lifecycle benefits, including maintenance, durability, and alignment with strategic objectives. For instance, procuring energy-efficient equipment might incur higher upfront costs but yield long-term savings and environmental benefits, illustrating the nuanced application of VFM.

- Right Product: Solicit offers from all potential vendors to evaluate market options. Specifications must reflect functional needs for fair competition, avoiding overly restrictive clauses that could limit participation. Technical evaluations should objectively compare bids against RFP criteria using verifiable parameters, such as measurable performance metrics or compliance checklists.

- Right Price: Compare bids equitably to determine the best total cost of ownership, factoring in elements like warranties, training, and disposal costs. True competition arises only from proper technical shortlisting, enabling market price discovery. Due diligence verifies price reasonableness through benchmarking against historical data, market surveys, or independent cost estimates.

- Right Time: Minimize internal lead time for contract awards by streamlining approval processes and specify optimal external delivery schedules in RFPs and contracts, incorporating penalties for delays to enforce accountability.

Achieving VFM requires integrating these elements holistically, often supported by tools like e-procurement platforms that enhance transparency through real-time tracking and data analytics.

Auditor's Objectives in Procurement Audits

Auditors and auditees share the VFM goal: auditees ensure it, auditors assure it. Auditors assess:

1. Whether the product meets RFP specifications by reviewing technical evaluations for objective comparisons and broad vendor solicitation, ensuring no undue exclusions that could skew competition.
2. Procurement at the right price through equitable bid comparisons and price reasonableness checks, including analysis of any price variations against market norms.
3. Adherence to timelines via minimal award delays and clear delivery clauses, verifying if extensions were justified and did not lead to unnecessary costs.
4. Objectivity, transparency, and fair play in all decisions, such as disclosing evaluation criteria upfront and maintaining audit trails for appeals.
5. Compliance of post-contract actions with contract terms, including variations, payments, and performance monitoring.

This comprehensive assessment fosters accountability and deters manipulation, aligning with ASOSAI's emphasis on knowledge sharing to strengthen regional audit practices.

From Wasteful Spending to Value for Money: Auditing Public Procurement for Transparency and Efficiency - SAI India

Audit Methodology

Procurement audits demand a systematic, risk-based approach. Examine stages like requirement formulation, bid solicitation, evaluations, and contract execution. Verify original documents: RFPs, bids, evaluation reports, contracts, inspections, and payments. A key step involves mapping risks at each phase—for example, identifying potential for bid rigging during solicitation or favoritism in evaluations. Auditors can employ data analytics to detect anomalies, such as unusual bid patterns or correlations between evaluators and vendors.

Auditors need not be domain experts to review technical evaluations—they verify alignment with RFP criteria without technical judgments, using tools like checklists or peer reviews for consistency. This stage is critical, as it risks bid tailoring or biased selections, where specifications are manipulated to favor certain suppliers. Skipping it undermines VFM assurance. To enhance methodology, SAIs can adopt performance auditing frameworks that incorporate stakeholder interviews and comparative analysis with best practices from other jurisdictions, promoting continuous improvement.

Audit Approach: Balancing Compliance and VFM

Audits ensure accountability but can inadvertently prioritize low-cost bids over quality, leading to delays and breaches. For instance, in public works procurement, lowest-bidder (L1) wins often quote unrealistically low, later seeking extras via deviations—a common issue in infrastructure projects audited by SAI India. This highlights the pitfalls of over-reliance on price, where quality compromises can result in higher long-term costs, such as repairs or safety hazards.

Strict compliance may stifle professional judgment, while evasive compliance (e.g., dummy bids to favor vendors) simulates fairness but erodes transparency. Rules cannot cover all complexities; balanced discretion is key, allowing procurement officials to weigh qualitative factors like innovation or past performance.

Shifting to VFM audits evaluates the full cycle, emphasizing efficiency and outcomes over mere procedures. This identifies weaknesses, like skewed evaluations, and recommends improvements—aligning with INTOSAI standards for enhanced transparency. Such audits encourage the use of multi-criteria decision-making models, where price is one factor among quality, sustainability, and timeliness. By fostering a culture of strategic procurement, VFM approaches can reduce vulnerabilities to corruption and promote ethical vendor participation.

In conclusion, VFM-focused audits transform procurement from vulnerability to strength, promoting transparency and efficiency. SAIs should prioritize training in these methodologies to build capacity and share knowledge across ASOSAI members, ultimately contributing to sustainable public sector governance.

Can E-Procurement Solve the Procurement Dilemma? (Case Study of Indonesian e-Catalogue) - SAI Indonesia



Mr. Irfan Mangkunegara, SAI Indonesia

Background

Technology has transformed many activities in our daily lives. It changes how a company does its business, for example, online sales, digital marketing, and so on. It has also transformed the way the government conducts its business, including digital services for its citizens and how it procures goods and services to deliver public goods and services. Many private and government entities are adopting e-procurement since its development in the early 2000s. It is defined as any technology, including the use of the internet, to facilitate the purchase of goods or services by the public or private entity (Davila et al, 2003).

Various studies highlighted the benefits of e-procurement adoption in the public sector. Neupane et al (2012) mention potential e-procurement advantages, including improved transparency and efficiency, curbing corruption, cost reduction, superior decision-making, and keeping track of supplier performance. With all those perceived benefits, it is no wonder that many international organizations, such as the World Bank, European Union, and OECD, suggest its implementation for the member countries.

Indonesia has been adopting e-procurement since 2012. The President Regulation Number 70/2012 gives the foundation of e-procurement practices in Indonesia. It mentions two e-procurement methods, namely e-tendering and e-purchasing. The latter is executed through a system called e-catalogue, which contains information regarding the product (type, technical specification, and price) from government suppliers. Over the past decade, the e-catalogue has changed dramatically. It becomes more flexible, eliminates much red tape, and consequently is used by many government employees and suppliers. A senior minister of the Government of Indonesia even mentions that the e-catalogue is a tool to prevent corruption in government procurement. Contrary to the claim, McCue et al (2015) state that one of the procurement dilemmas is that a reduction in bureaucracy will not yield a decrease in fraud opportunity. This article aims to demonstrate the existence of such a dilemma in Indonesia's e-catalogue system.

E-Catalogue and its evolution

E-purchasing through the e-catalogue system has evolved since 2012. In the early stage of its implementation, a supplier who wishes to sell its goods or services should contact the National Public Procurement Agency/NPPA (Lembaga Kebijakan Pengadaan Pemerintah). Then, the agency will choose a supplier over a tender or a non-tender mechanism. After passing the selection mechanism, the agency will award a contract to the supplier and put its product in the e-catalogue system. The commitment-making officer (the buyer) from any government ministry or agency, and the local government can purchase the goods or services through the e-catalogue system. This process suggests that the NPPA has curated suppliers. Hence, the price of goods or services on the e-catalogue is the best price available for the government. Initially, the e-catalogue system offered only a few products, including vehicles, internet services, agricultural machinery, medical devices, drugs, and peripherals from a few vendors. It is plausible since suppliers should deal with the NPPA for the selection process to place their products on the e-catalogue, but the agency has limited resources to do so. However, the commitment-making officers across the government benefited from the e-catalogue, as it eliminated the need for a lengthy tender process, resulting in an efficient procurement process and a better price or improved economy.

To address the bottleneck at the NPPA, the Head of the NPPA issued Regulation number 14/2015 as the basis to delegate the vendor selection process to the local government. Although such a policy had been enacted, procuring goods and services through the e-catalogue was not popular enough among commitment-making officers. Even the President of Indonesia issued Presidential Instruction number 1/2015 and President Regulation number 4/2015 to encourage the use of e-procurement and e-catalogue. Furthermore, President Regulation number 16/2018 has removed red tape for utilizing the e-catalogue. This includes eliminating the need for the commitment-making officer to establish the owner estimate and for the vendor to submit a performance bond/insurance.

A dramatic change for the e-catalogue happened in 2022, as the Head of the NPPA issued Resolution Number 122/2022. It removes various barriers, including product standardization and the vendor selection process, as a requirement to put a product or service on the e-catalogue. As a control tool, the commitment-making officer should prepare the price reference as a basis for negotiation with the vendor, and the latter should guarantee that the price put on the e-catalogue is the best price for the government.

One might argue that the Resolution's purpose is to increase the number of suppliers and foster competition, thereby enabling the government to obtain a better price. As can be seen in the table below, there is a significant increase in the number of suppliers, transactions, and the value of transactions on the e-catalogue system.

Can E-Procurement Solve the Procurement Dilemma? (Case Study of Indonesian e-Catalogue) - SAI Indonesia

Year	Transactions	Value (IDR Trillion)	Micro Enterprise	Small Enterprise	Medium Enterprise	Non MSME
2022	1,116,445	82.26	65,710	68,360	20,340	280,000
2023	6,220,751	190.33	710,000	500,000	57,140	520,000
2024	9,535,179	254.09	870,000	680,000	70,070	560,000

Source: <https://data-pdn.inaproc.id/public/page/id/888>

However, we should note that a competitive market does not guarantee competitive behavior. Zahra et al (2021) mention that expansion of market access is not enough to reduce fraud in government procurement.

The SAI Indonesia auditor’s procedures in response to the e-catalogue

The application of e-procurement benefits not only the buyer and vendors but also provides an advantage to the auditor. Schapper (2008) mentioned that one of the advantages of e-procurement is to improve audit data and transparency. OECD (2025) conducted a survey in 2024, showing that 68% of respondents highlighted the use of emerging technologies in public procurement to enhance control and oversight, such as detecting bid rigging, collusion among suppliers, or other anomalies.

According to OECD (2024), Supreme Audit Institutions (SAIs) and other oversight bodies have explored the use of data available on e-procurement to improve their oversight function. Using data analytics, the SAI can detect patterns, irregularities, or relationships in the procurement data. As an example, SAI Colombia has adopted a tool to analyze indications or patterns that might represent collusive behavior (OECD, 2025).

The e-catalogue system enables the commitment-making officer to purchase goods or services from any supplier on the system. Due to the limited restrictions on the supplier’s ability to sell goods or services on the e-catalogue, there is a risk that a particular seller may have a private channel with the commitment-making officer outside the system. As a result of this uncompetitive behavior, the seller is chosen by the commitment-making officer. This is aligned with Alilovic (2008), who stated that communication through a private channel might jeopardize efforts to prevent bribery in public procurement.

The Audit Board of the Republic of Indonesia (SAI Indonesia) is using the e-audit feature in the e-catalogue system to identify potential collusion between vendors and the commitment-making officer in the procurement process. As a result, SAI Indonesia identifies some data anomalies that indicate collusion exists, including:

1. Speed of first sale of the product or services

There are some steps for the commitment-making officer when he uses the e-catalogue system to purchase goods or services, i.e., (i) establish technical specification, (ii) create a purchasing package on the system, (iii) select product and vendor from various vendors on the system (iv) negotiate the price, and (v) create purchase order/contract on the system. If the supplier lists the product or service on the e-catalogue for the first time and it is purchased by the commitment-making officer shortly thereafter, it may suggest that communication occurred outside the system between the two parties. Data analytics show that there were 29 transactions in 2023 and 46 transactions in 2024 for products or services that were listed for less than an hour.

2. Price change before transaction

Once a product or service is put on the e-catalogue, its price can be monitored in the data log. If there is an increase shortly before a transaction happens, it might indicate that the vendor and the commitment-making officer are colluding. The data analytics in the table below show an increasing price of transactions, ranging between 35% and more than 100% before the transaction happened.

Year	Price Increase				
	35%-40%	40%-50%	50%-75%	75%-100%	>100%
2023	87	125	168	102	229
2024	136	172	286	196	983

Source: Yenny and Rohman (2025)

Can E-Procurement Solve the Procurement Dilemma? (Case Study of Indonesian e-Catalogue) - SAI Indonesia

However, Caulfield in Maulidi (2017) argued that untrained observers can conduct the search for collusion in public procurement since it generally leaves signs to be discovered. Therefore, the auditor should be aware of whether several conditions below exist.

1. A mismatch between the technical specification established by the commitment-making officer and the technical specification of a product put on the e-catalogue. A commitment-making officer should not purchase a product with different or incomplete technical specifications, as this might jeopardize their duty. If they purchase a product with incomplete technical specifications and the acquired product is perfectly suited to it, this may suggest that both parties have communicated outside the system.

2. A customized product or a service package. Products or services, such as customized furniture requiring room measurements, cars with specific modifications, or event organization service packages lacking detailed venue, food, or other criteria required by the commitment-making officer, may sign a communication outside the system that has occurred between the commitment-making officer and suppliers.

3. A standardized product with a particular installation technique. Sometimes, a standardized product listed on the e-catalogue, such as software, requires a specific installation process, including hardware checks, server diagnosis, and other steps. If the e-catalogue lacks information on the installation process and time required, and the commitment-making officer purchases it, this may indicate that both parties are meeting outside the system.

Other audit procedures, such as interviews using the PEACE technique, should follow up on the analysis to detect collusion above.

Conclusion

The recent development of the e-catalogue has removed various barriers for sellers to sell their products to the government using the platform. It seems such development is aimed at increasing the number of sellers, hence creating more competition and better prices for the government. However, a competitive market does not always mean competitive behavior. Data analytics and product analysis indicate that collusion happened between the commitment-making officer and vendors in procurements using the e-catalogue system. This provides evidence that the procurement dilemma exists.

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Abstract

E-purchasing has become a cornerstone of procurement reform in Indonesia. Yet e-audit monitoring result has revealed potential anomalies that signal vulnerabilities to fraud, including repeated transactions with the same supplier, unusually rapid transaction times, accelerated first purchases of newly listed products, and significant price changes at the point of transaction. While anomalies do not constitute proof of fraud, they serve as critical early warning indicators that auditors must integrate into risk-based audit planning. Their presence calls for more targeted testing of internal controls and closer evaluation of how procurement entities respond to irregularities. Thus, strengthening collaboration between BPK and government internal auditors is essential to safeguard accountability and integrity in public procurement.

Keywords: anomaly; e-purchasing; fraud; public procurement

Introduction

Governments worldwide are increasingly using public procurement as a strategic instrument to achieve policy objectives, making it a crucial pillar of public service delivery. On the contrary, because of the sheer volume of spending public procurement represents, corruption is especially prevalent in public procurement. This makes corruption in public procurement one of the most serious problems of modern public administration system (Chorny et al., 2025). Consistent with this finding, Indonesian Corruption Eradication Commission showed hundreds of corruption cases in public procurement (see Figure 1 below) highlighting the ongoing challenges in ensuring transparency and accountability of public procurement.

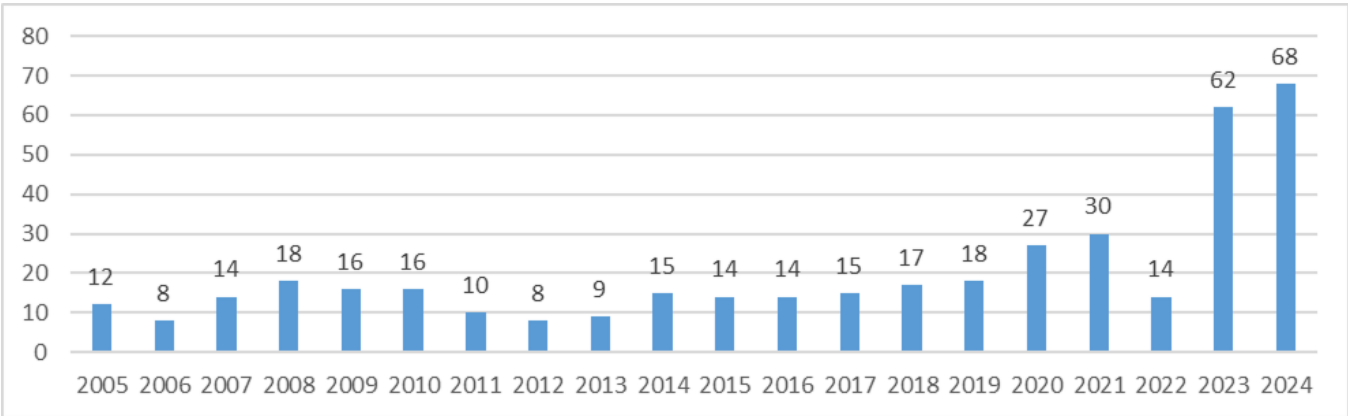


Figure 1. Trends in corruption cases in government procurement (2005-2025) Source: (BPKP, 2025)

Moreover, many studies reveal that the complexity of public procurement process creates opportunities for fraud, especially when the process employs a manual system (Rachman & Alamsyah, 2023). This situation led to initiatives to transform public procurement into an electronic process to minimize interactions between parties and to eventually closing the gaps for corruption. Magakwe (2023) even believes that e-procurement is an important instrument for reducing the risk of fraud and corruption in private and government agencies.

In Indonesian context, Government of Indonesia has issued some policies concerning public procurement as a basis for e-procurement system. Following up the issuance of Presidential Regulation 54/2010 on Public Procurement, Government of Indonesia had introduced e-purchasing method in 2015 allowing government entities to purchase directly from an electronic catalog (e-catalog). Further, presidential instruction has boosted the number of products listed in e-catalog leading to an increasing trend in e-purchasing (see Figure 2). The enactment of Presidential Regulation 46/2025 on Public Procurement, which mandates the use of e-purchasing for all public procurement when the goods/services are available in the e-catalog, further drives the adoption and growth of the trend in the future.

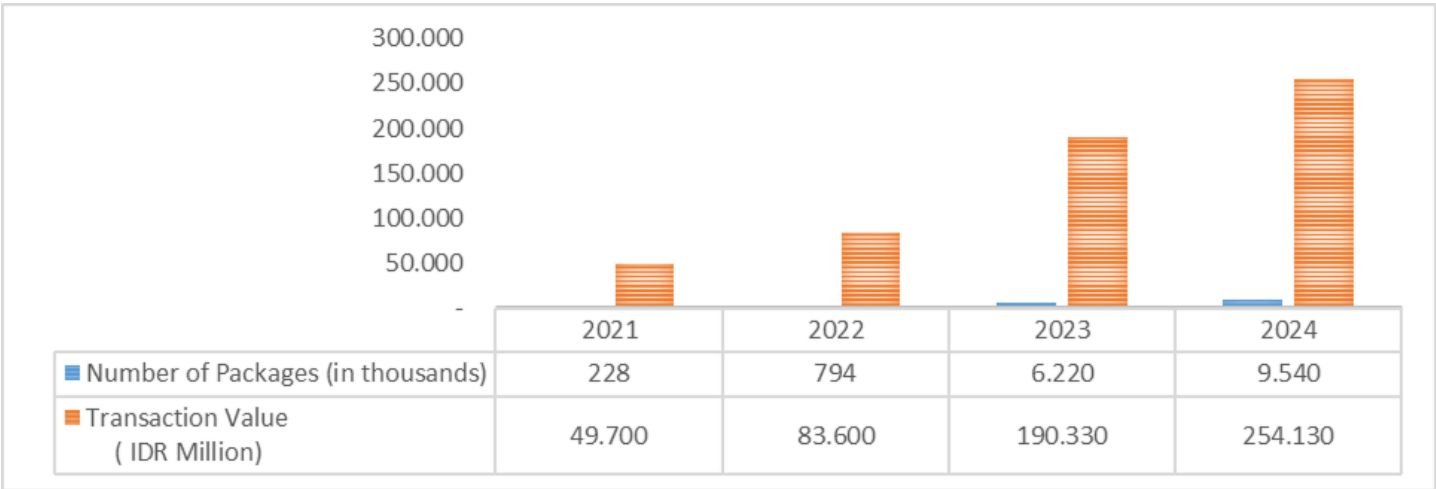


Figure 2. Profile of e-purchasing utilization (2021 - 2024) Source: Processed from LKPP Data, 2021 - 2024

Even though various studies have revealed the success of e-purchasing to prevent fraud in public procurement in Indonesia, Indonesia Corruption Watch has highlighted several potential fraud within the e-purchasing system (Rachman & Alamsyah, 2023). Accordingly, to effectively anticipate potential fraud risks in e-purchasing, the detection of anomalies in public procurements is critical (Niessen et al., 2020).

Considering the aforementioned condition, this study aims to provide information about potential anomalies in Indonesian e-purchasing system. Thus, this study is significant since it offers auditors a deeper understanding of the potential procurement anomalies. Consequently, auditors can develop more focused and effective audit programs to examine how the audited entities design and implement internal controls to respond these issues, helping to promote transparent and accountable e-purchasing process.

Methodology

This study employs a series of Focus Group Discussions (FGDs) with public procurement policymaker, government internal oversight officials, as well as BPK officials including public procurement officials, IT officials, and BPK auditors, as outlined below.

Table 1. Summary of FGDs

No.	Topics	Profile of Resources	Time Schedule	Key Questions
1.	The investigation of e-purchasing cases and the utilization of big data analytics to reveal fraud in e-purchasing system	The investigative unit and IT Bureau of the Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan - BPK)	January 2025	<div>- E-purchasing audit and tools utilized</div> <div>- Detected anomalies</div>
2.	Policy implementation and evaluation on the utilization of e-catalog 5.0 and 6.0	<div>- National Public Procurement Agency (Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah - LKPP)</div> <div>- Financial and Development Supervisory Board (Badan Pengawasan Keuangan dan Pembangunan - BPKP)</div> <div>- Public procurement official - BPK</div>	January 2025	<div>- Relevant government policies</div> <div>- Challenges in the utilization of e-catalog 5.0 and 6.0</div> <div>- Detected anomalies</div>

At the initial stage of the FGD process, a proposal and a set of key questions were developed to serve as guiding instruments for the discussion. These documents were subsequently distributed to the resource persons to facilitate their preparation and ensure focused deliberation. During the discussions, participants' responses were systematically documented. Following the FGDs, a thorough literature review was conducted by analyzing recent studies and key regulatory documents on the relevant subject. Lastly, the most relevant keywords related to potential anomalies in e-purchasing, identified through FGDs and literature reviews, were analyzed to determine the key categories of anomalies that warrant particular attention from auditors in e-purchasing audits.

Result and Discussion

Public Procurement through Suppliers

Public procurement covers the entire process - from the identification of needs to the final handover of completed work - conducted by ministries, agencies, local government, other public institutions, or village governments, and financed through the State/Local/Village Budget. In accordance with prevailing regulations, the selection of goods/services through suppliers can be conducted using several methods, including e-purchasing via e-catalog, online store e-purchasing, direct procurement, direct appointment, fast tender, and tender as illustrated in Figure 3.

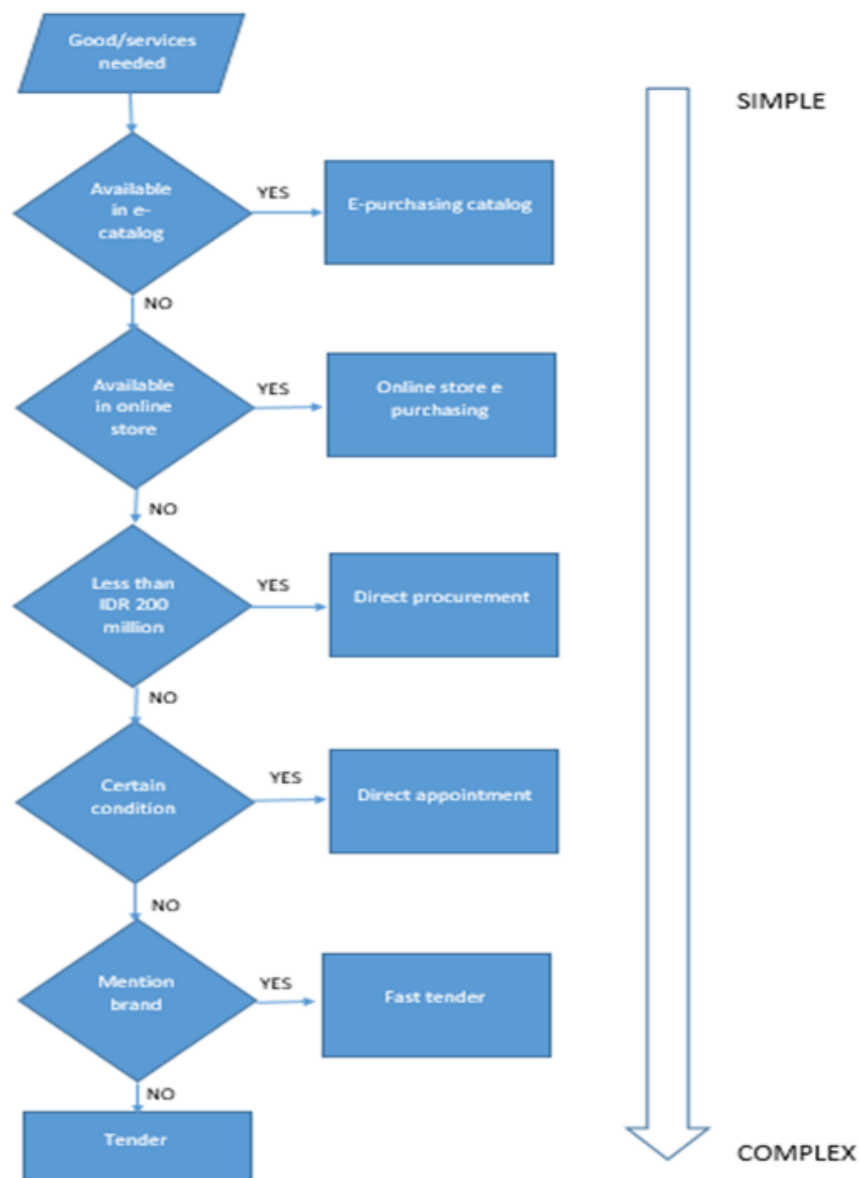


Figure 3. The Selection of Goods/Services through Suppliers Source: Proceeded from Available Regulation

Under Presidential Regulation 46/2025, the government is required to use e-purchasing when the required goods/services are available in the e-catalog. If the goods/services are not listed in the e-catalog but can be accessed through online stores, the online store e-purchasing method should be applied. In other cases, several alternative procurement mechanisms are available. Direct procurement is permitted when the value of goods/services does not exceed IDR200million. Direct appointment may be used under specific conditions as specified in the regulation. Furthermore, a fast tender can be applied when suppliers are pre-qualified in the supplier performance information system and the project's specifications and volume are clearly defined, or when a specific brand is required. Finally, a standard tender process is used when the other procurement methods are not applicable. Among these options, e-purchasing is generally considered the simplest method due to its streamlined procedures and minimal administrative requirements. In contrast, the tender process remains the most complex, involving multiple stages and detailed evaluation criteria.

E-purchasing

E-purchasing refers to the process of acquiring goods/services through an e-catalog system. The e-catalog itself is a digital platform that provides information on goods/services, including their prices, suppliers or self-managed implementers, and other relevant data. Initially, Article 72 of Presidential Regulation 16/2018 stipulated that the selection of commodities to be listed in the e-catalog was conducted by government agencies/LKPP, and the inclusion of goods/services in the e-catalog must undergo a series of verification process by the LKPP team. However, the issuance of Presidential Regulation 12/2021 devolved LKPP's authority for selecting commodities to be listed in the e-catalog to the buyers. According to Rachman & Alamsyah (2023), this amendment introduced a new burden and shared responsibility for buyers in managing procurement decisions.

In addition, this amendment eliminated the tender and negotiation process prior to commodity listing. Consequently, price negotiation is no longer applied at the listing stage, and the prices published in the e-catalog now represent the maximum retail price rather than the best-negotiated price. Under this regulation, the buyers are expected to conduct their own negotiations to obtain the most favorable price.

Furthermore, the issuance of Decree of Head of LKPP 122/2022 introduced a more streamlined process, reducing the number of product listing phases from eight to two. While this simplification facilitates faster and easier product inclusion in the e-catalog, it also places greater responsibility on buyers to carefully select products, assess supplier qualifications, and negotiate prices. Conversely, this simplified procedure may also create opportunities for fraud in e-purchasing if adequate oversight and control mechanisms are not effectively implemented.

The Potential Anomalies and How Auditors Should Respond

As part of the National Strategy for Corruption Prevention, particularly to strengthen preventive controls in public procurement, BPKP has introduced a monitoring feature within the e-catalog system, known as e-audit. This feature enables government internal auditors to detect anomalies in a timely manner. These anomaly indicators serve as valuable inputs for BPK in its role as the external auditor. In this context, internal auditors play a preventive role through continuous monitoring, while BPK evaluates whether these anomalies indicate weaknesses in governance, accountability, or internal controls.

BPK auditors rely on e-audit monitoring results to identify where fraud risks may exist within e-purchasing activities. By reviewing detected anomalies prior to commencing an audit, BPK auditors can determine which audit tests should be conducted and what supporting data need to be collected. Moreover, auditors can assess how entities respond to identified anomalies—whether they implement corrective measures, strengthen internal controls, or disregard the warning signals. However, auditors must exercise caution: anomaly detection functions as an early warning mechanism rather than definitive evidence of fraud. Such indicators signal potential irregularities that still require verification through substantive testing. Therefore, BPK must align its audit response with the type and objective of the audit to ensure that conclusions remain objective, evidence-based, and reliable.

The potential anomalies and auditors' response may include:

1. Repeated transactions with the same supplier

This analysis aims to identify behavioral patterns of Procurement Officers (Pejabat Pengadaan/PP) and Commitment-Making Officers (Pejabat Pembuat Komitmen/PPK) by examining the ratio between the number of procurement packages and the number of unique suppliers involved. A disproportionately high ratio may suggest that procurement officials are concentrating transactions with a limited number of suppliers, potentially indicating conflicts of interest, preferential treatment, or collusion. For BPK, this anomaly highlights the importance of testing whether procurement entities adhere to fair competition principles and whether internal controls effectively prevent supplier concentration. Audit procedures may include reviewing vendor selection records, analyzing supplier diversity, and assessing whether procurement planning aligns with competition requirements.

2. Unusually rapid transaction times

This analysis monitors procurement packages completed within an unusually short period between the product's initial listing and the finalization of the contract. Transactions executed within such compressed timeframes may indicate prearranged agreements between suppliers and procurement officials (PP/PPK) outside formal procurement procedures. In such cases, BPK auditors should perform detailed reviews of procurement documentation to verify whether evaluation, comparison, and negotiation processes were properly conducted. Data analytics can also be used to assess whether transaction speed is reasonable in relation to the complexity of the goods or services procured.

3. Accelerated first purchases of a newly listed product

This analysis tracks procurement packages completed within a short interval between the creation of a purchase order and the contract signing. Such rapid status changes may indicate insider knowledge or collusion. A particular concern observed through e-audit monitoring is the growing number of transactions completed in less than one hour, suggesting that contracts may be finalized without adequate review or negotiation. In response, BPK auditors should verify whether procurement officers complied with all procedural requirements, including supplier evaluation and price verification.

4. Significant price changes at the point of transaction

This analysis evaluates variations in product prices over a defined period. A sharp increase in price immediately before a transaction—followed by a decrease afterward—may signal price manipulation or collusion between suppliers and procurement officials. For BPK auditors, this anomaly requires testing the reliability of pricing mechanisms, comparing price trends across suppliers, and assessing whether internal controls are capable of preventing opportunistic or coordinated price adjustments.

Conclusion and Recommendation

This study demonstrates that anomaly detection in e-purchasing provides valuable early warning signals of potential fraud risks in public procurement. Although anomalies do not constitute direct evidence of fraud, they reveal systemic vulnerabilities that auditors must address through timely and evidence-based responses. Incorporating anomaly detection into risk-based audit planning may allow SAIs to shift from reactive investigation to proactive risk identification and triage.

The findings imply that the effective utilization of anomaly detection requires institutional, methodological, and capacity-related adjustments within SAIs. First, anomaly detection should be formally embedded in the audit planning and risk assessment frameworks to ensure that audit resources are allocated toward high-risk procurement activities. Second, SAIs should strengthen data collaboration with internal audit institutions and procurement regulators to enable real-time exchange of anomaly monitoring results. Third, enhancing auditors' competencies in data analytics and digital audit tools is critical to ensure that anomaly indicators are correctly interpreted and effectively integrated into audit testing. Finally, SAIs can assume a strategic governance role by communicating systemic anomaly trends and control weaknesses to policymakers, thereby supporting continuous improvement of procurement systems.

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Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia

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Abstract

Procurement governance in Indonesia's upstream oil and gas sector plays a pivotal role in ensuring cost efficiency, regulatory compliance, and national energy resilience. This research assesses the implementation of SKK Migas Procurement Guidelines within Indonesia's upstream oil and gas sector, focusing on moral hazard risks, cost recovery, and production efficiency. Using qualitative analysis of SAI of Indonesia audit reports and relevant literature, the research identifies discrepancies between regulatory frameworks and field practices. Key findings highlight issues in scope of work modifications, pricing inefficiencies, and conflicts of interest among providers, all contributing to inflated operational costs and compromised procurement integrity. Despite PTK-007's comprehensive structure, its practical application reveals vulnerabilities that may hinder national energy objectives. The study recommends revising procurement regulations, enhancing transparency, and adopting digital technologies to strengthen governance and accountability. These measures are essential to optimize cost recovery, safeguard state interests, and promote sustainable upstream operations.

Keywords: Upstream Oil and Gas, Procurement, Moral Hazard, Operational Cost

Introduction

Under Presidential Regulation of the Republic of Indonesia No. 9 of 2013, as amended by Regulation No. 36 of 2018, Indonesian government mandates the Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas) to oversee upstream oil and gas operations through Cooperation Contracts. This mandate ensures that national oil and gas resources are utilized strategically and efficiently for the benefit of the country and its people. SKK Migas operates under the supervision of the Minister of Energy and Mineral Resources and is empowered to regulate, monitor, and assess the activities of Oil and Gas Contractors (KKKS), including their procurement procedures (Ministry of Energy and Mineral Resources, 2022).

International best practices highlight that digital integration across supply chains enhances efficiency, resilience, and project delivery in upstream oil and gas operation. This is achieved through improved planning, proactive risk mitigation, and stronger stakeholder collaboration (Onukwulu et al., 2024a). A strategic approach is vital, emphasizing robust policies and thorough supplier assessments to reduce risks, ensure compliance, and maintain sustainable operations (Onukwulu et al., 2024b). As technology evolves rapidly, continuous evaluation of procurement systems is necessary to improve supply chain maturity and preserve agility (Wang et al., 2025).

Effective and transparent supply chain management is essential for operational success and long-term investment in the upstream sector. SKK Migas's Work Procedure Guidelines (PTK) No. 007 provide a comprehensive framework governing KKKS activities, including planning, procurement, asset and customs management, and project execution. These guidelines are founded on principles of efficiency, fairness, and transparency, aiming to strengthen domestic capabilities in oil and gas support services.

PTK-007 Book 2 specifically outlines the regulatory structure for supply chain management, ensuring that operational needs are met with optimal cost, quality, and timeliness. It also serves as a tool for promoting national economic growth. Recent revisions to PTK-007 reflect efforts to align with global standards. However, its implementation faces challenges such as moral hazards that inflate production costs, as noted in audits by Indonesia's Supreme Audit Institution (BPK). This study evaluates PTK-007 Book 2's effectiveness by examining scope amendments, pricing mechanisms, and supplier selection processes to identify gaps and recommend improvements in procurement governance.

Method

This research conducts a qualitative document analysis of 16 BPK audit reports to understand the risks of moral hazard in upstream oil and gas procurement. The authors specifically sought out audit findings that detail issues with pricing, contract amendments, and potential conflicts of interest. This analysis, supplemented by a literature review of global journals, legislation, media, allows the research to examine how current procurement practices align with established governance frameworks.

Result and Discussion

Due to its inherent risk, SKK Migas is required to strictly oversee cost recovery related to KKKS procurement activities. These expenditures directly affect cost recovery calculations and the revenue split between KKKS and the Indonesian government. Additionally, crude oil price volatility significantly influences procurement costs and inventory turnover, especially in Middle Eastern oil-dependent industries. Each unit increase in volatility may raise procurement costs by approximately \$3.96 million, prompting firms to prolong inventory holding as a hedge, which impacts turnover rates (Mohammad et al., 2025). The 2023 SKK Migas Annual Report details cost recovery trends from 2019 to 2023.

Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia

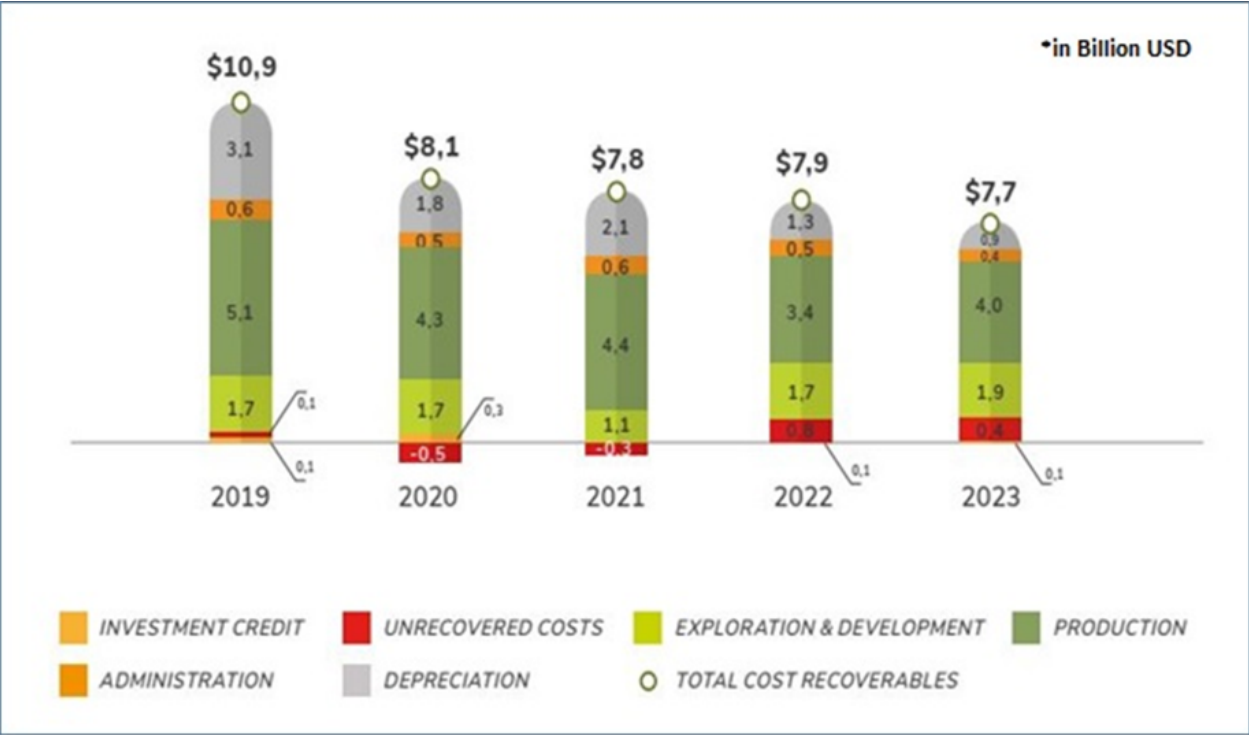


Figure 1. Cost Recovery 2019 – 2023 (Source : SKK Migas, 2023)

Figure 1 indicates a downward trend in cost recovery between 2019 and 2023. Notably, the depreciation burden in 2023 was relatively low, recorded at USD 0.9 billion. This reduction is likely due to the absence of substantial depreciation charges from major KKKS production facility projects. Furthermore, exploration, development, and production expenditures in 2023 exceeded those of 2021 and 2022. Additionally, the 2023 SKK Migas Annual Report presents oil and gas production data from 2015 to 2023.

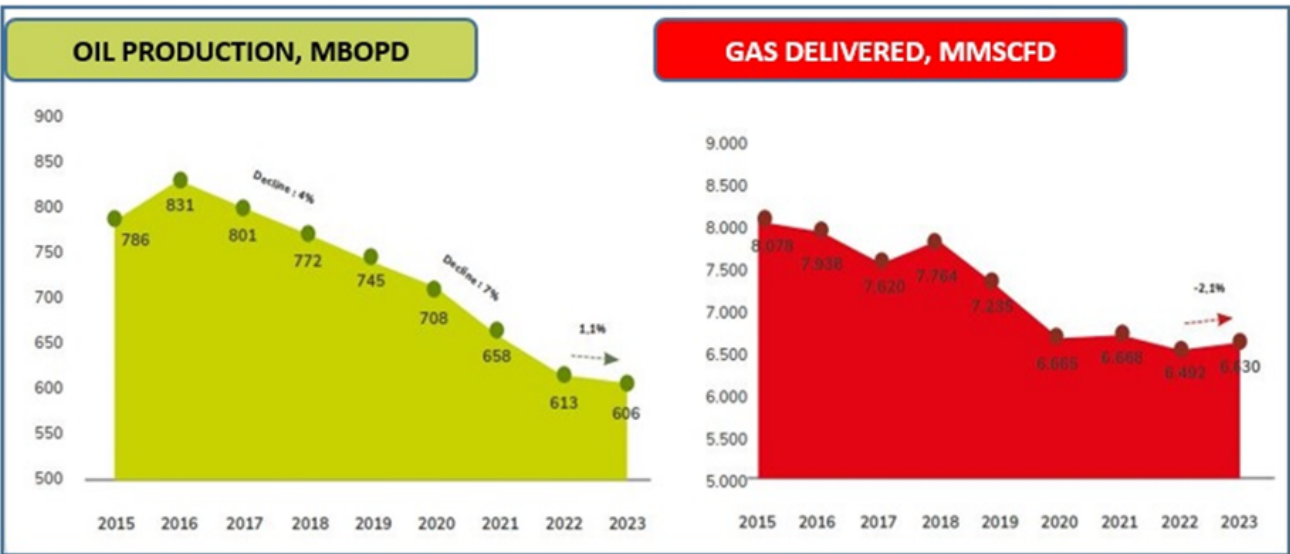


Figure 2. Oil and Gas Production 2015 – 2023 (Source : SKK Migas, 2024)

Figure 2 illustrates a steady decline in petroleum production since 2016, reaching 606 million barrels per day by 2023. In contrast, natural gas production has shown volatility, with a substantial drop from 2018 to 2020.

Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia

Analysis of Figures 1 and 2 highlights a downward trend in oil and gas production, despite the potential for increased cost recovery. This discrepancy may point to inefficiencies in cost recovery implementation or a weak linkage between cost recovery mechanisms and production performance. Accordingly, KKKS must establish robust procurement arrangements to ensure that goods and services expenditures contribute meaningfully to cost recovery outcomes. This finding aligns with research conducted in Nigeria, where asset procurement investments have not consistently translated into profitability gains (Twaliwi et al., 2022). To address these challenges, some studies recommend for adaptive procurement strategies, enhanced buyer-supplier collaboration, and the integration of digital platforms such as SAP Ariba to support data-driven decision-making and strengthen long-term supply chain competitiveness (Alhammadi et al., 2023; Adindu Donatus Ogbu et al., 2024).

Based on the analysis of the BPK audit reports and supporting literature reveals that moral hazard remains a key challenge in the procurement of goods and services within the upstream oil and gas sector, impacting both KKKS and their suppliers. This concern is exacerbated by structural limitations in the PTK-007 policy framework, particularly regarding the clarity and enforcement of procurement guidelines.

3.1 Scope of Work Amendment

The Contract Management provisions in PTK-007 Book 2 outline procedures for modifying scope of work, including price changes and task additions. KKKS may revise scope if the increase in contract value does not exceed 10% of the original amount. Exceptions apply to specific procurement categories such as drilling rigs, rework, well maintenance, and integrated construction projects with related services (SKK Migas, 2023).

BPK's report found cases where KKKS altered scope without formal amendments from KKKS or providers. These undocumented changes included unit price revisions, extended timelines, and expanded scopes. To ensure transparency and accountability, all adjustments must be formally documented and contractually validated.

A recurring issue in KKKS procurement is scope amendment due to providers failing to meet original commitments. Timeline extensions - often granted without penalties - typically result from provider delays. In integrated construction, such deviations can cause major cost overruns, increasing the financial burden on the Government of Indonesia under the Production Sharing Contract (PSC). Scope expansions that raise costs are often linked to procedural errors by KKKS and providers. BPK also found cases where additional scope was justified under COVID-19 mitigation claims, raising red flags about the transparency and accountability of those modifications.

PTK-007 Book 2 generally prohibits scope expansions for obligations already assigned through contracts or tenders. Exceptions are allowed only for unforeseen, technically essential changes. However, this clause presents a moral hazard in change management, as the "unpredictability" argument may be misused to justify changes that should remain the responsibility of KKKS or providers.

3.2 Pricing

PTK-007 Book 2 stipulates that goods and services procurement cannot be classified as operational expenditure if the owner's estimate fails to reflect a reasonable market value or if the contract price exceeds the owner's estimate (SKK Migas, 2023). BPK report have identified instances of cost mark-ups resulting from inaccurate cost assessments and the use of overly complex or inefficient estimation formulas, leading to inflated unit prices and reduced procurement efficiency. These practices pose fiscal risks to the Government and undermine the integrity of procurement management.

Additionally, contract pricing is vulnerable to moral hazard, particularly in the rental of operational assets where rental costs frequently surpass purchase prices. This is due to the absence of regulatory provisions in PTK-007 Book 2 requiring KKKS to compare owner estimates for both rental and purchase options prior to procurement. Although purchasing typically involves higher upfront costs and maintenance obligations, it enables asset ownership by the Government and offers potential residual value through resale. For example, in vehicle procurement, decommissioned units can be resold, generating returns that help offset total procurement expenditures.

3.3 Conflict of Interest Among Providers

PTK-007 Book 2 emphasizes the critical importance of avoiding conflicts of interest in the procurement of goods and services (SKK Migas, 2023). A conflict arises when KKKS personnel, acting individually or collectively, exert influence, whether directly or indirectly, to affect procurement decisions in favor of specific individuals, groups, affiliates, or providers. Such conduct undermines the integrity of the procurement process and exposes the Government and other legally bound parties to significant risk.

Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia

BPK audit report have highlighted procurement irregularities involving provider companies with direct or indirect ties to the KKKS operators overseeing the procurement process. In several cases, KKKS granted leniency on late penalties despite providers failing to meet contractual deadlines. Moreover, affiliated providers often operated as intermediaries rather than asset owners, contributing to inflated rental costs. These affiliations extended beyond the immediate KKKS operator, involving other KKKS entities with participating interests. The relationships took various forms, including KKKS subsidiaries, foreign companies from the operator's country of origin, and even familial connections between provider company owners and stakeholders in participating interests.

The interactions between providers and KKKS whether direct or indirect, can substantially influence procurement outcomes and decision-making processes. Providers with established ties to KKKS may gain early access to procurement details, including owner estimates, giving them a competitive edge during tender preparation. These relationships may also enable access to privileged information or shape the development of tailored technical specifications, potentially resulting in exclusive eligibility during technical evaluations. In some cases, such affiliations foster ongoing collaboration, leading to recurring procurement needs and the establishment of subscription based arrangements. While such practices can undermine the integrity and transparency of procurement, they also present opportunities for operational efficiency.

Despite the inherent risk of moral hazard, strategic relationships between KKKS and providers can yield cost-saving benefits. Subscription models, for instance, may reduce rental expenses, and long-term partnerships can result in preferential pricing. Furthermore, fostering synergy among state-owned enterprises (BUMNs) is essential, with BUMN entities ideally prioritized as suppliers in KKKS operations, particularly in cases where both the operator and the provider are BUMNs. Accordingly, PTK-007 Book 2 must embed robust safeguards to prevent moral hazard by ensuring that procurement remains cost-effective, accountable, and free from undue leniency in penalty enforcement.

4. Conclusion

Procurement plays a critical strategic role in the upstream oil and gas sector, serving as a cornerstone for operational efficiency and cost control. Although PTK-007 Book 2 provides a comprehensive regulatory framework, evaluations particularly those reflected in BPK audit findings highlight persistent gaps between policy and practice. Key vulnerabilities include inconsistencies in scope modification procedures, pricing methodologies, and vendor selection processes, which collectively expose KKKS to moral hazard. These shortcomings risk inflating operational expenditures, placing fiscal pressure on the Indonesian government and undermining the integrity of procurement governance.

To mitigate these risks, SKK Migas and KKKS must prioritize a thorough revision of PTK-007 Book 2, reinforcing regulatory provisions with stricter controls on scope changes, transparent and market-aligned pricing mechanisms, and robust safeguards against conflicts of interest. The integration of digital technologies should be actively advanced to improve efficiency, traceability, and accountability across the procurement lifecycle. Additionally, fostering strategic collaboration among BUMNs through the optimal engagement of BUMN vendors can enhance value creation, provided that transparency and fair competition remain central to procurement practices.

Improving Operational Efficiency in Upstream Oil and Gas Through an Assessment of Scope Amendments, Pricing, and Conflict of Interest under PTK-007 - SAI Indonesia

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An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia

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Abstract:

This paper analyzes the principal findings of public procurement audits conducted by the Supreme Audit Institution (SAI) of Indonesia during the first half of 2024. While discussions on corruption often center on large-scale and high-value procurements, the analysis highlights that recurring mid-to low-value procurements associated with operational expenditures also present substantial risks to public finances and may exert a material influence on audit opinions. Drawing on a selection of financial, performance, and special purpose audit reports from the first semester of 2024, the study examines procurement activities in the internet infrastructure and food security sectors. Findings indicate a strong correlation between deficiencies in procurement processes—such as inadequate documentation, fictitious invoices, and a lack of needs identification—and the issuance of qualified audit opinions. The analysis highlights that these issues not only lead to a significant financial drain and misstatement of financial assets but also compromise the government's ability to deliver its core public services. The study concludes that systemic weaknesses in mid-to-low value procurement activities often overshadowed by the focus on large-scale projects, which pose significant risks to fiscal integrity and governance outcomes, thus strengthening internal controls is essential for mitigating risk, promoting accountability, and ensuring the effective use of public funds.

1. Introduction

Public procurement is fundamental to provide the public infrastructure to satisfy the public interest (Florina-Maria, 2021). A study in Indonesian public sector has argued that the changes in values of the procurement of goods and services had a positive impact on Indonesian economy in the long run and that 91,12% variation of the economy of Indonesia derived from procurement by government (Azwar Azwar, 2016). Thus, this become the focus for the government auditors.

Almost all the corruption cases are stemmed from procurement of infrastructure (Rustiarini et al., 2019). Thus, a public procurement audit is a crucial process for ensuring that public funds are used effectively and ethically. It involves a systematic examination of the entire procurement lifecycle, from the initial needs assessment to the final contract closure. The goal is to provide assurance that all procurement activities comply with legal frameworks, internal policies, and principles of transparency, fairness, and value for money.

This article analyzes key findings from a selection of audits conducted by the Supreme Audit Institution (SAI) of Indonesia during the first half of 2024. We have found that not only procurement with high value which result in fixed assets are important, but also middle value of simple procurement that results to current assets are material due to the high frequency.

2. Public Procurement and its Relation to Financial Statements

Public procurement includes procurement of goods, construction, consultation services, and other services (PP 16/2018 - Government Goods/Service Procurement, 2018).

The classification and presentation of the government expenditure in the Statement of Budget Realization (cash basis) (PP 71/2010 - Government Accounting Standards, 2010, p. Standard Statement-2):

1. Operational Expenditure, including but not limited to: goods and service expenditure.
2. Capital expenditure, including land acquisition, equipment & machinery, buildings, roads, irrigation and other network, other fixed assets, other assets.

The “goods and service expenditure” are recognized as “current assets” while the “capital expenditure” are recognized as fixed assets in the government’s balance statements. The Statement of Balance is presented on an accrual basis.

An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia

3. Audit Methodology and Approach

SAI Indonesia publishes summaries of its audit reports biannually. The reports from the first semester of 2024, which primarily cover financial audits of 2023 financial statements as well as performance and special purpose audits, were selected for this analysis. The audits related to procurement were chosen from these reports, specifically in the sectors of internet infrastructure and food security.

We selected the audits that have “procurement” in the summaries of audit reports. We found that there are four financial audits, one performance audits and one special purpose audits, highlighted in the summary of audit reports. The financial audits and the performance audits are conducted on three ministries, with one ministry selected for both financial audit and the performance audits. In addition, the special purpose audit was carried out on a State-Owned Enterprise. All financial audits conducted on first half of 2024 are for the budget year 2023 while the performance audit and special purpose audit are conducted for the budget year 2021-2023.

The audit approaches employed were varied, reflecting the nature of each engagement:

Financial Audits: These audits, like those for Ministry A, B, C, and D, primarily used a compliance-based approach. The key methodology involved detailed examination of procurement documents, including planning, bidding, and payment records. This was supplemented by clarification and confirmation with relevant parties to verify the authenticity and accuracy of transactions.

Performance Audits: The audit for Ministry B used a performance and value for money (VFM) approach. The auditors sought to answer specific questions: “Has food been provided to meet national needs?” and “Is food affordable?” To gather evidence, they used non-probability and purposive sampling techniques to interview key personnel and assess whether the procurement activities aligned with the stated objectives of food availability and affordability.

Special Purpose Audit: The audit for Institution E was a compliance audit focused on specific regulations. The methodology involved testing for adherence to established procedures, which ultimately concluded that the procurement was in accordance with the regulations.

4. Audit Opinions/Conclusions

Since there is limited audit opinion research in public sector (Nurhidayah et al., 2024), it is important to gain more understanding on the audit opinions which were selected due to public procurement audit findings.

Table 1. Significance Audit Findings on Procurement - first half 2024

No	Ministry - Sector	Audit Type	Audit Opinion/ Conclusion - 2023	Previous Opinion – 2022
1	A - Digital Infrastructure	Financial Audit	Qualified Opinion	Unqualified Opinion
2	B - Food Security	Financial Audit	Qualified Opinion	Unqualified Opinion
3	C – Food Security	Financial Audit	Qualified Opinion	Not available (recently established institution)
4	D - Financial Security	Financial Audit	Unqualified Opinion	Unqualified Opinion
5	B- Food Security	Performance Audit	Significance Problems	Not available (included in the 2024 audit)
6	E - Food Security	Special Purpose Audit (compliance audit)	In accordance with the regulation	Not available (included in the 2024 audit)

Based on the Table 1 above, the audit findings in procurement in Ministry A, B and C have correlation in resulting qualified opinion audit. The audit report of both ministries specifically mentioned due to the significance problems of the procurement which resulted reasonable doubt to the auditors for the presentation of current assets and fixed assets on the Statement Balance. In response to this, the auditors decided to give qualified opinion.

An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia

While for Ministry D, even though unqualified opinion were provided due to overall presentation, in audit findings for the procurement of financial instrument, the auditors stated the governance is not fully implemented.

Ministry B was also subjected to the performance audit, not only the financial audit, due to the importance of food security government program. The auditors concluded that significance problem occurred in the program, particularly due to weak control over goods expenditure.

State-owned enterprises E (which is also the only non-ministry institution in the sample) was subjected to special purpose audit. While the overall audit conclusion of the audit is “in accordance with the regulations”, the auditors noted that, with regards to the findings on the procurement of living animals, the principles of good governance had been disregarded.

5. Audit Findings

The selected audits revealed a variety of findings on procurement goods and services, which can be linked to common fraud schemes. While the findings themselves do not constitute legal proof of fraud, they serve as significant red flags for potential misconduct.

Table 2. Audit Findings Patterns

Audit Type	Institution	Accounts/Transactions	Red flag /patterns	Impacts
Financial Audits	A	<ul style="list-style-type: none"> • Prepaid expenditure – current assets • Work in progress- fixed assets 	<ul style="list-style-type: none"> • No ownership to the assets (assets are stored in the provider's warehouse) • Fictitious invoice and falsified invoice • Differential amounts in the details supporting • Change of assets components without price adjustment • Recognition of assets using invoice price instead of fair value when necessary • Ongoing corruption case trial 	<ul style="list-style-type: none"> • Auditors' reasonable doubt on the assets value recognition • Represents a significant financial risk. The state may lose money on assets it cannot legally use or control, leading to a high burden on state finances. • Leads to the misstatement of financial accounts and the unauthorized disbursement of public funds, indicating potential fraud.
	B	<ul style="list-style-type: none"> • Inventory expenditure • Transportation expenditure • Business trip expenditure • Service expenditure – event organizing 	<ul style="list-style-type: none"> • Inadequate invoice/evidence • No receipts for manual payment/disbursement to employee • Splitting contract to avoid open tender 	<ul style="list-style-type: none"> • Highlights a material uncertainty for auditors, as the small value and high frequency of these transactions make it difficult to verify their legitimacy. This also suggests weak internal controls.
				<ul style="list-style-type: none"> • Could hinder the ministry in fulfilling its mandates.

An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia

Table 2. Audit Findings Patterns

	C	<ul style="list-style-type: none"> • Inventory expenditure • Transportation expenditure • Business trip expenditure 	<ul style="list-style-type: none"> • Incomplete or missing the deadline invoices and other supporting evidence as well as non-existence invoices • No receipts for manual payment/disbursement to employee 	<ul style="list-style-type: none"> • Small value of procurement transactions, but in high occurrence and high value in total. Resulting a material uncertainty for auditors. • Could hinder the institution in fulfilling its mandates.
	D	<ul style="list-style-type: none"> • Debt procurement/debt issuance 	<ul style="list-style-type: none"> • No needs identification 	<ul style="list-style-type: none"> • High burden of interest and debt on state finance • This leads to ad-hoc, reactive procurement that may not align with broader organizational goals.
Performance audit	B	<ul style="list-style-type: none"> • Food security program – staple food procurement (rice) 	<ul style="list-style-type: none"> • No price reference for procurement 	<ul style="list-style-type: none"> • Weak control on maintaining food buffer. • Results in inefficient resource allocation and unnecessary financial burdens on the state.
Special Purpose Audit	E	<ul style="list-style-type: none"> • Procurement on living animals (cattlestock) 	<ul style="list-style-type: none"> • No business plan • Lack of demand-driven procurement: goods and services are procured without a clear and well documented paper. • Using past transaction as a price reference • Not considering existing risk plan, ignoring the risk analysis result in affecting gross profit margin (score middle-high) 	<ul style="list-style-type: none"> • High risk of obsolete inventory due to low sales. • High risk of default debt due to low sales. • This leads to ad-hoc, reactive procurement that may not align with broader organizational goals. • Ignores market dynamics and risk analysis, potentially leading to inflated costs and a lower gross profit margin.

From the Table 2 above, it can be concluded that many repetition in: inadequate invoice, no needs identification and no price reference can have negative impact on the audit opinion as well as the impact of the organizational day-to-day activities.

The International Standard on Auditing (ISA) 320: Materiality in Planning and Performing an Audit sets out how an auditor must determine materiality and performance materiality, including for particular classes of transactions, account balances or disclosures. ISA 320 (2008, para. 10) particularly states : “When establishing the overall audit strategy, the auditor shall determine materiality for the financial statements as a whole. If, in the specific circumstances of the entity, there is one or more particular classes of transactions, account balances or disclosures for which misstatements of lesser amounts than materiality for the financial statements as a whole could reasonably be expected to influence the economic decisions of users ... the auditor shall also determine the materiality level or levels to be applied to those particular classes of transactions, account balances or disclosures.” This means that even smaller transactions may require audit attention if they are of a nature or frequency such that they could influence a stakeholder's decisions.

An Analytical Study of Audit Approach, Red Flag Typologies and Their Implications in Indonesian Public Procurement - SAI Indonesia

This approach has been practiced by Victorian Government Purchasing Board (VGPB) in Australia by applying risk-based sampling and data analytics for high-volume transactions. For procurements of lower individual value but large aggregate volume or frequency, auditors are advised to select a larger sample size (or even entire populations) and/or apply data-analytics techniques to identify patterns of risk (rather than relying solely on sampling of large value items) (Victorian Government Australia, 2025).

This supports the argument that the deficiency of internal control systems, non-compliance with regulations and non-conformance with accounting standards can impact the audit opinion on government financial statements (Pamungkas et al., 2018).

6. Conclusion

Audit findings from the first half of 2024 demonstrate that vulnerabilities within public procurement processes are not confined to large-scale infrastructure projects. The cumulative effect of frequent small- to medium-value transactions—particularly those pertaining to inventory, logistics, and routine operational expenditures—can exert a material influence on the accuracy of financial statements and heighten the risk of fraudulent activities. Accordingly, auditors should adopt a more comprehensive analytical approach that encompasses lower-value procurements and systematically identifies recurring patterns and structural weaknesses within organizational practices.

The qualified audit opinions for Institutions A, B, and C underscore the seriousness of these control weaknesses. This supports the argument that weaknesses in internal control could negatively affect the auditor's opinion (Heniwati & Hervianto, 2024; Pamungkas et al., 2018).

To strengthen public procurement and mitigate associated risks, governments must adopt a comprehensive control framework. Strengthening internal controls is particularly important for low-value but high-frequency transactions, which, although individually small, may collectively present material risks. This requires clear segregation of duties, multi-level approvals, and mandatory documentation to ensure accountability and reduce opportunities for fraud. Furthermore, transparency plays a vital role in strengthening procurement governance. Publishing procurement information—from tender announcements to contract awards and payment records—not only deters misconduct but also enhances accountability through external scrutiny by legislatures, civil society, and the public. Digitizing the public procurement procedures can also enhance auditors capacity to identify suspicious transaction, by enabling the integration of digital technologies and data analytics into audit processes (Mokeyeva & Yurko, 2023).

In addition, enhancing due diligence is essential: auditors should consistently verify the legitimacy of invoices, confirm supplier credibility, and ensure that procurement decisions are preceded by both sound business plans and demonstrated demand. Such measures align with the principles of economy, efficiency, and effectiveness that underpin performance auditing.

Beyond preventive measures, adopting a risk-based approach can further optimize oversight. By integrating data analytics into audit practices – not only at the engagement level but also at the institutional level (Eilifsen et al., 2020) - auditors can be better equipped to detect anomalous bidding behavior, unusual payment flows, and recurring red flags that traditional sampling techniques may overlook. Recent research also indicates that the application of machine learning can help the detection of collusion in procurement (Wallimann & Sticher, 2023). Collectively, these measures reinforce procurement systems that safeguard public funds, foster integrity, and strengthen trust in public sector governance.

Disclaimer:

The views expressed in this article are those of the authors and are presented within certain limitations

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China's Audit Institutions Promote Orderly Operation of Government Procurement and Efficient Use of Public Funds - SAI China

In recent years, the Chinese government has comprehensively reformed its government procurement system, steadily improving market order while aligning with international frameworks such as the WTO's Agreement on Government Procurement (GPA) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Efforts have been made to improve the legal system for government procurement, enhance its rule of law, and promote market access, in order to foster a market-oriented, law-based, and internationalized environment for government procurement.

Against this backdrop, the National Audit Office of China (CNAO), grounded in its role of economic oversight, has been auditing the operations of government procurement across all stages, from budget management, procurement procedures, to fund management and use, ensuring that every fraction of public funds is spent where it is most needed with good value for money.

Government Procurement Law of the People's Republic of China defines government procurement as the purchasing activities conducted with fiscal funds by government departments, institutions and public organizations at all levels, where goods, construction and services are in the centralized procurement catalogue compiled in accordance with law or the value of the goods, construction or services exceeds the respective prescribed procurement thresholds. Through a series of law-based regulatory initiatives, the Chinese government has facilitated continuous expansion of government procurement scale, improved its legal framework, and realized significant cost savings and policy outcomes.

Implementing government procurement in an expanding scale

Government procurement plays a critical role in the economic development of all countries, and the scale and influence of China's government procurement are substantial. Serving as a bridge between government and market, government procurement represents an important institutional arrangement in China's public finance operation and national governance. The Chinese government has piloted the government procurement system in its economic activities since the late 1980s and early 1990s. After a period of exploration, an orderly and transparent government procurement system was gradually established, and the scale of government procurement has continued to expand.

According to World Bank data, government procurement accounts for 10%-15% of global GDP, with this proportion even higher in some developed countries. China's government procurement scale has also continued to grow. Public data show that the scale of government procurement in China increased from 100.96 billion RMB yuan in 2002 to 3,499.31 billion RMB yuan in 2022, accounting for 9.4% of national fiscal expenditure and 2.9% of GDP in 2022. Government procurement is playing an increasingly important role in China's economic development.

Implementing government procurement in an orderly and law-based manner

China's government procurement, evolving from its initial pilot phase to the formal promulgation of the Government Procurement Law of the People's Republic of China in 2002, entered into a new phase of development under the rule of law. In recent years, China issued an Action Plan for Deepening Reform of the Government Procurement System, proposing a series of measures aimed at accelerating the establishment of a modern government procurement system characterized by clear responsibilities, efficient transaction rules, sound regulatory mechanisms, comprehensive policy functions, well-developed legal framework, and advanced technical support.

To create a market-oriented, law-based international business environment, accelerate the development of a modern industrial system, and promote high-quality economic and social development, the General Office of the State Council of China launched a three-year initiative (2024-2026) nationwide focusing on "improving market order, building regulatory system, and promoting industrial development" in the government procurement sector. To implement Action Plan for Deepening Reform of Government Procurement System, the Ministry of Finance and other relevant departments are revising the Government Procurement Law of the People's Republic of China, issuing a series of departmental regulations, and establishing a comprehensive legal system for government procurement, covering work mechanisms, operation procedures, as well as principles of management, oversight and adjudication, ensuring law-based governance in China's government procurement.

Leveraging economies of scale in government procurement to improve the effectiveness of public funds

In recent years, the Chinese government has repeatedly emphasized that the government should tighten its own expenditures and priorities more resources to the people. In the context of government procurement, tightening the expenditures means ensuring procurement activities conducted in a value-based and cost-saving manner through centralized bulk procurement, and ensuring that fiscal funds are used where they are most needed. To this end, China's government procurement authorities have issued specific regulations requiring the implementation of centralized bulk procurement and procurement through framework agreements among government entities.

For instance, orders for desktops, laptops, printers, photocopiers, and air conditioners are aggregated for centralized procurement to fully leverage economies of scale in government procurement, reduce procurement costs, and maximize the efficiency and value for money of public funds. Public data indicate that the prices of desktop computers purchased through centralized bulk procurement are generally 30% lower than market prices. Meanwhile, procurement administrative authorities have required central departments to conduct procurement through framework agreement for common services such as construction cost consulting and project management, regulating small-value procurement practices, setting price ceilings, and allowing entities to further reduce prices through secondary bidding within the ceiling to maximizing savings.

Unleashing the policy orientation function of government procurement in multiple ways

Article 9 of Government Procurement Law of the People's Republic of China stipulates that government procurement shall be conducted in such a manner as to facilitate achievement of the goals designed by State policies for economic and social development, including but not limited to environmental protection, assistance to underdeveloped or ethnic minority areas, and support of small and medium-sized enterprises. Public data show that the policy orientation function of government procurement are increasingly prominent, and has effectively promoted economic and social development.

For example, in supporting green development, the Ministry of Finance and the Ministry of Housing and Urban-Rural Development have explicitly required the comprehensive adoption of green buildings standards and purchasing green building materials in government procurement. In 2025, the Ministry of Finance further requested to "optimize government green procurement policies, improve standards and norms for green product procurement, expand the scope and scale of procurement, and guide the increase in green product supply and consumption". In 2020, the government procurement of energy-saving and water-saving products amounted to 56.66 billion RMB yuan, accounting for 85.7% of nationwide procurement in similar product categories, while the procurement of environmental friendly products reached 81.35 billion RMB yuan, accounting for 85.5% of nationwide procurement in similar product categories.

In supporting small and medium-sized enterprises (SMEs), since 2019, the Chinese government has continuously enhanced policy framework for SMEs through government procurement, and a host of documents have been issued in this regard, including The Guidance on Promoting Fair Competition and Improving Business Environment in Government Procurement, and The Guidance on Further Increasing Government Procurement Support for SMEs. In 2022, the total contracts awarded to SMEs accounted for over 70% of the total government procurement contracts. Furthermore, government entities have actively implemented government procurement policies in supporting poverty alleviation. In 2020, the procurement of agricultural products from poverty-stricken regions reached 9.967 billion RMB yuan, achieving significant social benefits in increasing the incomes of impoverished rural households and facilitating the sales of agricultural products.

II. China's Audit Institutions Advance Orderly Operation of Government Procurement and Efficient Use of Funds

Audit institutions are key forces for the modernization of China's system and capacity for governance. In recent years, Chinese audit institutions actively contributed to fostering sound economic development, safeguarding national economic security, exposing risks and potential weaknesses, and advancing the efforts in combating corruption and misconduct. In practice, audit institutions ensured through their work that the mandate and primary role of audit institutions in economic oversight are followed, that the methodology of research-based audit is adhered to, and that auditors' professional integrity and competence are upheld. This safeguards proper government procurement and the efficient use of funds.

Promoting completeness and accuracy in budget formulation through auditing the compliance of government procurement budget

The government procurement budget serves as the starting point for procurement activities and a key basis for determining procurement scale and fund utilization. The completeness and accuracy of the budget are essential prerequisites for the compliance of procurement activities and the use of funds. Through auditing the completeness of procurement budget formulation, China's audit institutions promoted comprehensive and accurate preparation of procurement plans and relevant budgets, ensuring that goods, works, and services meeting statutory threshold or included in the centralized procurement catalog are fully incorporated into the budget plans. By auditing the accuracy of budget formulation, audit institutions make sure government entities will better estimate the quantity, specifications, models, and budget amounts of procurement items based on actual needs and market conditions, thereby avoiding over-budgeting or under-budgeting. Through these audits, entities at all levels are better guided to prepare budgets in accordance with laws and regulations, and to conduct procurement activities strictly according to the goods, works, and services specified in the budget plan, thereby enhancing the completeness and accuracy of government procurement budgeting.

Promoting Orderly Operation of government procurement through auditing the lawfulness of procurement process.

The lawfulness of government procurement process is a critical factor ensuring fairness, impartiality, and transparency in procurement activities. "Sunlight is the best disinfectant". Many illegal or non-compliant issues in government procurement are procedural irregularities or violations. The audit institutions enjoy high independence and are not involved in general government functions such as administrative approval, project management, or fund allocation. This independence ensures audit institutions as key forces for the modernization of China's system and capacity for governance, and enables auditors to better play their role in anti-corruption activities. Audits of the lawfulness of procurement process ensure that government procurement activities are operated in a law-based manner, in which auditors examine whether procurement decisions, such as open tender, invited tender, inquiry, competitive negotiation, or single-source procurement, are made in accordance with the law; whether the stipulated procedures at each stage are strictly implemented, including commissioning of procurement plans, preparation and announcement of procurement requirements, bidding and bid evaluation, and selection of winning bidders and contract signing; and whether the fairness and transparency of procedures, such as the receipt of bids, bid opening, and bid evaluation, are properly followed. Through revealing any irregular operations by entities or suppliers for illicit gains, audit institutions can effectively fulfil their anti-corruption duties.

Overseeing public spending and promoting practice of frugality through auditing the performance of procurement funds.

The effectiveness of procurement funds is an important aspect in government procurement audits. Chinese audit institutions, focusing on their main responsibility of auditing the authenticity, lawfulness, and effectiveness of public revenue and expenditure, oversee the exercise of power by following the flow of funds and implementation of projects, safeguard public spending, promote practice of frugality among government entities, and ensure the implementation of national policies in the fiscal and economic domain.

By auditing the compliance of government procurement in its use of funds, audit institutions ensure procurement funds are allocated to their intended projects and spent where they are most needed. By auditing the carryover balance of government procurement funds, audit institutions ensure the efficient and timely use of funds. By auditing whether procurement prices are align with market conditions and whether adopted procurement strategies have generated cost reductions, audit institutions further enhance the effectiveness of fiscal fund utilization.

III. Challenges in Auditing Government Procurement and CNAO's Responses

Currently, government procurement audits conducted by Chinese audit institutions still face some challenges. For instance, the quality and impact of audit findings need to be improved; some audits are not focused; the contradiction between heavy audit tasks and insufficient manpower is prominent; the competence of auditors cannot fully meet the needs of auditing; and the digitalization of audit institutions needs to be further strengthened. Audit institutions should adhere to a problem-oriented approach, implement targeted measures, make every effort to make up for shortcomings, and promote the high-quality development of audit work.

Further focusing on the main responsibility of audit institutions

China's auditing institutions will continue to fulfill their responsibility of auditing the authenticity, lawfulness, and effectiveness of public revenue and expenditure. In response to the increasingly complex audit matters, audit institutions will further focus on the critical operations of government procurement process and the use of funds. Key priorities will be auditing the completeness and compliance of budget formulation, intensifying performance audits of procurement expenditures, and improving the effectiveness of procurement funds. Based on examining the lawfulness of the government procurement process, efforts will also be made to ensure that public funds are allocated to designated procurement projects to deliver maximum benefit.

Further strengthening auditors' capacity

As the authority and impact of China's audit institutions continually growing, auditors' competency is becoming increasingly important. Chinese audit institutions will focus on building a high-quality, professional workforce capable of shouldering responsibilities in the new era, to train more high-quality, multi-skillful audit talents, and fully leverage data-driven approaches in auditing major, critical, and typical issues. This will mainly be a do-and-learn process for the auditors, however when facing complex business tasks, external expertise may also be engaged to address intricate problems more effectively.

CNAO upholds the importance of audit quality and keeps to raise its auditors' awareness about audit quality and continuously improves its audit practices throughout the entire cycle of audit. Through more pragmatic and efficient work, CNAO will further promote mutual learning with its international counterparts on government procurement audits. By adhering to the right course of economic globalization, embracing openness and inclusiveness, responding to challenges with more concrete actions, we will achieve common development and secure a shared and prosperous future.

Value for Money (VfM) - SAI Iraq

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The Holy Qur'an confirms that every human being and entity has a value and a role in this worldly life, Where man was created in the best stature and granted dignity, Therefore, all people and things have had a value since the beginning of creation, but these values vary from one person to another and from one thing to another.

This difference may be natural because difference is prevalent in our world.

Based on the above, things differ in their value and the extent of their benefit, Since these things have a monetary or in-kind cost, Here, it is necessary to know the extent of its benefit before obtaining it and paying its price, Here it is the idea of research came that the value we get from these things in exchange for the money we pay to buy them.

The article aims to understand value for money from a theoretical perspective and discuss the impact it can have and how to benefit from it.

The practical aspect of the research included examining the practical aspects of numerous research papers, theses, dissertations, and websites, taking practical cases that demonstrate the reality of value for money and discussing them from a scientific perspective.

Abstract

This worksheet expounds on the principle of value for money (VfM) and its conceptually straightforward and relevance It also introduces 'four Es' framework economy, efficiency, effectiveness and equity – is also frequently used to think about different aspects of VfM and Value for money assessment methods and their practical applications and Real-life examples to determine what value for money is, The article aims to understand value for money from a theoretical perspective and discuss the impact it can have and how to benefit from it, To achieve this goal, methods for assessing value for money and their practical applications were researched, and real-life examples were used to determine the value of money, The article reached a set of conclusions such as: Ensuring that a policy or project provides value for money is common sense, particularly at a time of stretched budgets. Yet proving VfM in theory-based evaluations is anything but simple. Benefits can be hard to measure and value; the impact of interventions can be difficult to disentangle in complex, long-running programmes; and the risk of double counting is ever present, and recommendations like: There are benefits and limitations to each of the methods of assessing value for money. It is important for the evaluator to consider a range of options for determining whether an activity is value for money. They should think through the benefits and limitations of each approach and ensure key points are included in the design of the evaluation that may be important. It may be necessary for the evaluator to source input from other specialist consultants in particularly complex evaluations of this nature.

Value for money is conceptually straightforward

The term Value for Money (VfM) describes general principles governing good planning, procurement and management. A key concept is that in order to judge whether an intervention was worthwhile, the money spent needs to be assessed alongside what has been delivered or achieved. VfM analysis can be conducted in many ways. It can be used during planning and design, or for monitoring and evaluation (M&E) (Vera Scholz;2020).

The concept of Value for Money (VfM) in appraisal and evaluation is straightforward. VfM is concerned with the good use of public funds and with demonstrating the relationship between the costs and benefits of an intervention – whether a policy, a project or a programme. It is an important tool for the accountability of public spending.

VfM is concerned with the optimal use of public funding and is a critical tool for the accountability of public spending. (Treasury Green Book ,HM Treasury;2022),

VfM is not about minimising cost. The focus is the relationship between costs and benefits – 'bang for the buck' – to get the most out of public spending. The benefits assessment is holistic, taking into account social as well as economic benefits. As the Green Book puts it (Frontier;2022):

“Value for Money ... is a judgment about the optimal use of public resources to achieve stated objectives ... based on consideration of ... present value to society of all social, economic and environmental benefits – these may be qualitative or quantitative – [and] ... present public resource costs.”

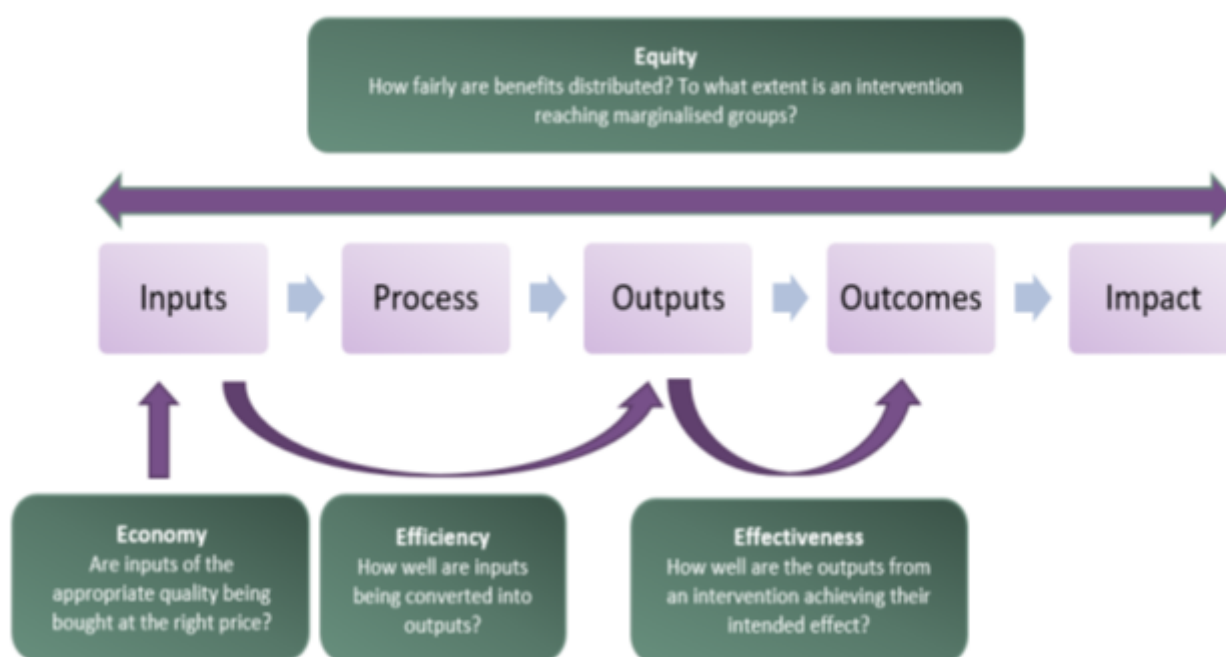
The importance of value for money (VFM)

A key theme in contemporary performance management is that organisations need to measure, and manage, non-financial aspects of performance, rather than focusing solely on financial aspects. However, in profit-seeking organisations, there remains an underlying financial objective: typically, to maximise profit in order to maximise value for shareholders (ACCA;2020).

The debate on how best to allocate scarce public resources is not new. For the past 15 years, the term Value for Money (VfM), sometimes also called Value for Investment, has been used by policymakers to describe general principles governing good planning, procurement and management. Increasingly, however, VfM has begun to refer to a more specific set of criteria applied to programmes and projects.

The term is now used widely by development actors such as International NGO umbrella networks, institutional donors, and multinational organisations such as the Development Assistance Committee (DAC). VfM is often expressed through three different criteria – Economy, Efficiency, and Effectiveness. UK agencies have recently added a significant fourth ‘E’ – Equity – which refers to the fair allocation of benefits. Frequently, these criteria serve as principles that inform the decision-making of funders. It is now common VfM practice to map the 4E framework against a standard results chain (Vera Scholz;2020). (see diagram below, based on DFID (2011)).

Figure No. 1



There are four key terms that are used by agencies in defining VfM (Economy, Efficiency, Effectiveness and Equity).

Here is a definition of each term (DFID's;2014), The National Audit Office's 'four Es' framework – economy, efficiency, effectiveness and equity – is also frequently used to think about different aspects of VfM (Frontier;2022).

- **Value for money development should be economic:** inputs have been procured at the least cost for the relevant level of quality. For example, in evaluating a training course being delivered in Australia the slightly higher costs for accommodation and flights may be justified given the experience that the cohort requires their own cooking facilities and that flights need to be flexible because participants often change and this leads to more cost in the long run.

Perhaps the simplest method used by CSOs is to design a set of indicators relating to economic (BOND;2012):

- amount of economy savings achieved.
- direct support costs as a proportion of activity spend.
- examples of good procurement practices.

• **Value for money development should be efficient:** How well do we or our agents convert inputs into outputs? (outputs are results delivered by us or our agents to an external party. We or our agents exercise strong control over the quality and quantity of outputs) (DFID: 2011).

Perhaps the simplest method used by CSOs is to design a set of indicators relating to efficient (Vera Scholz; 2020):

- cost per unit of output.
- cost per direct beneficiary per period.
- budget utilisation rate over reporting period.

• **Value for money development should be effective:** How well are the outputs from an intervention achieving the desired outcome on poverty reduction? (Note that in contrast to outputs, we or our agents do not exercise direct control over outcomes)

Cost-effectiveness: How much impact on poverty reduction does an intervention achieve relative to the inputs that we or our agents invest in it? (DFID: 2011).

Perhaps the simplest method used by CSOs is to design a set of indicators relating to effective (Vera Scholz; 2020):

- cost for adopting new or improved practices.
- economic return (cost-benefit analysis of separate project components).
- cost per unit of outcome (e.g. job created, child free from disease, etc.).

• **Value for money development should be equitable:** ensuring that benefits are distributed fairly. For example, a small business incentive program that did not reach the most remote and vulnerable parts of the population may be evaluated as inequitable (Evaluation Matters Third Quarter 2016).

Perhaps the simplest method used by CSOs is to design a set of indicators relating to equitable (Vera Scholz; 2020):

- range of marginalised people/groups included.
- cost of increasing participation of marginalised or excluded groups.
- examples of barriers to inclusion being removed.

procurement reforms intend to ensure VfM by improving flexibility, quality, and efficiency throughout the procurement cycle (see illustration below). VfM is part of a holistic procurement structure with three support pillars: efficiency, quality, and flexibility. The two key principles of transparency and fairness weave across all elements of the structure.

Figure No. 2



Value for money assessment methods and their practical applications

The financial concept of value for money is measured by comparing costs with the benefits or advantages obtained from a product or service (Gould, Marie:2021). This includes looking at the product's quality, durability, functionality, and overall purchasing experience, rather than just the price paid. In the context of evaluating companies or assets, this might include market comparisons, discounted cash flows, or price-to-earnings ratios, or cost-benefit analysis to determine whether the fair value of an asset is comparable to its cost or the value of future cash flows [1, 2, 3, 7].

If you want to ensure that you are making value-based decisions when buying or selling, you can follow these tips to assess value for money:

- **Research and compare:** Before making a purchase, you should conduct comprehensive research to compare the various options available to you when purchasing a product. You should review all of this data and testimonials to determine the level of satisfaction of previous customers with these products or services.
- **Sometimes you need to be aware of long-term costs,** as a low initial price can lead to higher long-term costs. For example, devices that may be inexpensive but require more energy or frequent repairs can reduce their effectiveness and increase their long-term costs.
- **You can also look for bundled offers and discounts frequently,** as some companies offer deals and offers every so often to significantly enhance value for money.

The debate about VfM is in large part driven by the same concerns shaping the discourse about what and how to evaluate development work in general: who is in the driver's seat when determining what success looks like, how to measure it, and what makes for a 'good' or a 'bad' intervention? For example (Vera Scholz:2020)

- Should it be funders, technical experts or local voices and interests?
- Are we striking the right balance between investing resources in analysis, learning and reporting vis-a-vis implementation for beneficiaries?
- How do we deal with programmes that are not easily evaluated?
- How do we measure the VfM of complex interventions that have no pre-defined path to success.

A recent (BetterEvaluation:2025) paper written by Farida Fleming identifies six main methods that can be used to evaluate value for money. Each approach has benefits and limitations and examines the relationship between costs and benefits in a particular way:

- Cost Effectiveness Analysis (CE Analysis).
- Cost Utility Analysis (CU Analysis).
- Cost Benefit Analysis.
- Social Return on Investment (SROI).
- Rank correlation of cost vs impact.
- Basic Efficiency Resource Analysis (BER analysis).

Real-life examples to determine what value for money is.

The value of money refers to its purchasing power, or the quantity of goods and services that can be obtained with a unit of currency, such as the dinar, for example. It expresses the quantity of goods and services that can be purchased with a unit of currency, As in the examples below:

- Some people, when they want to fit in, want to know what resorts offer them to determine value for money, So when a luxury resort is offered that is more expensive but offers additional amenities for free, It is best to consider those preferences and budget, The luxury resort also offers better value for money in terms of both enjoyment and convenience for these people, despite the higher price.
- If you're buying a new computer, you expect it to be faster and more powerful than your old one. If it isn't, it's not a good value for the money. Value for money is an important factor when making any purchase, especially when making large or expensive purchases.
- Value for money means getting a high-quality product or service at a reasonable price. Here are some other examples of value for money:

- Budget Restaurants:- Fast food restaurants that offer delicious meals at low prices.
- Household products: High-quality, affordable home appliances.
- Services: Public transportation offers low prices and good service.

Technology: Laptops that offer good performance at low prices.

- Entertainment: Movie theaters that offer great shows at reasonable prices.
- Clothing and Shoes: Brands that offer high-quality clothing and shoes at reasonable prices.
- Travel: Budget hotels that offer comfortable rooms at reasonable prices.

Conclusions

1. Available examples of VfM approaches applied in practice tellingly focus on less complex programmes.
2. VfM might at times be treated as an add-on and at other times as the driving force behind evaluative efforts.
3. Ensuring that a policy or project provides value for money is common sense, particularly at a time of stretched budgets. Yet proving VfM in theory-based evaluations is anything but simple. Benefits can be hard to measure and value; the impact of interventions can be difficult to disentangle in complex, long-running programmes; and the risk of double counting is ever present.

Recommendations

1. It is useful to rely on the concept of value for money and make it a driving force and incentive for individuals and companies to achieve optimal use of available funds.
2. In value for money analysis believes it is worthwhile to ask and investigate whether resources are allocated in the best way possible, But how to do this in each case, and in each evaluation, needs to be informed by more specific questions, resources and audiences. It also needs to take into account the scope for action on evaluation recommendations.
3. There are benefits and limitations to each of the methods of assessing value for money. It is important for the evaluator to consider a range of options for determining whether an activity is value for money. They should think through the benefits and limitations of each approach and ensure key points are included in the design of the evaluation that may be important. It may be necessary for the evaluator to source input from other specialist consultants in particularly complex evaluations of this nature.
4. In order to effectively manage a company, it is important to know how much it is worth. If the organization does not know how much it is worth or what makes good business sense (i.e. acquisitions and mergers), there is a potential to make fatal mistakes that may be detrimental to the organization's well-being.

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A Symphony of Oversight: The Role of Procurement Audits in Safeguarding Public Value – A Case from the Maldives - SAI Maldives

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In the orchestration of public service delivery, procurement is the rhythm that sustains development. It is the bridge between policy and implementation, between aspiration and infrastructure. Yet, when procurement falters, the consequences reverberate across budgets, timelines, and public trust. The audit of the Blues Housing Project offers a poignant case study of how procurement, when left unchecked, can drift from harmony into dissonance.

Introduction of the Blues Housing Project

The Blues Housing Project was launched in June 2013 as a flagship initiative by the Government of Maldives to provide affordable housing for personnel of the Maldives Police Service. To manage and oversee the project, the government entrusted the Police Cooperative Society (POLCO), a corporative entity established to enhance the welfare of police officers and their families. POLCO was responsible for administering the procurement process, managing contracts, and ensuring the delivery of housing units in alignment with the project's social objectives. Spanning over a decade, the project's scale and ambition were significant, yet its execution was flawed by procurement irregularities, contract mismanagement, and financial oversight failures. Even before the audit was initiated, the Blues Housing Project had become a subject of significant public concern. Media reports and citizens complaints highlighted delays, cost escalations, and a lack of transparency, prompting calls for independent scrutiny and accountability. These public concerns were a key factor in the decision to launch a comprehensive audit.



A Symphony of Oversight: The Role of Procurement Audits in Safeguarding Public Value – A Case from the Maldives - SAI Maldives

These challenges prompted a comprehensive audit to evaluate the integrity of procurement practices, the effectiveness of contract administration, and the extent to which the project delivered value for money and upheld public accountability. The audit covered the period from the project's inception in 2013 through November 2024, encompassing all major contractual phases, financial transactions, and implementation milestones.

Reconstructing the Financial Picture: Audit Approach and Challenges

Public procurement represents a significant portion of government expenditure and is inherently vulnerable to inefficiencies, mismanagement, and corruption. Procurement audits serve as both watchdogs and guides, ensuring adherence to legal frameworks while evaluating whether procurement decisions deliver intended outcomes. The audit of the Blues Housing Project exemplifies this duality, applying a structured methodology grounded in international public sector auditing standards to uncover systemic weaknesses.

At the outset of the audit, a major challenge was the absence of proper record-keeping and project specific financial tracking. When the audit was initiated, neither POLCO nor the implementing agencies could provide a consolidated statement of how much had been spent on the project to date. Records were fragmented, incomplete, and not maintained in a manner that allowed for straightforward reconciliation. Though inconsistent with the role of auditors, we had to compile the entire financial picture from scratch, reconciling payment vouchers, bank statements, and contract amendments across multiple sources. This painstaking process was essential to establish a reliable baseline for cost analysis, benchmarking, and the identification of irregularities.

The audit adopted a multi-branched methodology grounded in international public sector auditing standards, combining compliance, performance, and financial audit techniques. A central focus was the compilation and analysis of project cost statements. The audit team reconstructed the project's financial course by reviewing payment vouchers, contract amendments, and expenditure reports. This revealed a total project expenditure of USD 71 million, more than double the original estimate.

To assess cost efficiency, the audit benchmarked the Blues Housing Project's construction costs against prevailing industry standards. As of the date of the audit, the project had incurred a total expenditure of USD 71 million for a built-up area of 573,332 square feet. This translates to an average cost of approximately USD 120 per square foot, way above the industry average for similar projects in the Maldives of USD 84 to USD 97 per square foot. This means the Blues Housing Project's cost per square foot was 23% to 42% higher than the industry benchmark. The audit attributed this significant variance to repeated contract amendments, lack of competitive tendering, and inadequate cost controls. This benchmarking analysis enabled the audit to quantify the extent of cost overruns and wastage, underscoring the need for stronger procurement oversight and adherence to industry standards in future projects.

Procurement and Tendering Gaps: Tracing Beneficial Ownership

Effective procurement is the backbone of public project delivery, but when processes are circumvented or manipulated, the risks to value for money and integrity multiply. The audit uncovered several significant weaknesses in the project's procurement and tendering, particularly in how contracts were awarded and managed.

The audit's review of procurement documentation and stakeholder interviews revealed significant gaps in tendering processes. The original contract, valued at USD 37.6 million, was awarded without competitive bidding or submission to the Maldives National Tender Board, violating national requirements. Contractual revisions were frequent and lacked adequate justification, contributing to cost inflation and extended timelines.

A critical finding was the linking of all major subcontractors to a single beneficial owner, raising concerns about conflicts of interest, reduced competition, and compromised procurement integrity. Related-party transactions amounting to over USD 40.8 million highlighted the need for enhanced due diligence and transparency in contractor selection.

Financial Analysis: Overpayments, Advances, and Wastage

A thorough financial analysis was essential to quantify the true extent of irregularities and inefficiencies in the Blues Housing Project. By reconciling payments, advances, and contract amendments, the audit identified significant financial mismanagement and areas where public funds were put at risk.

A Symphony of Oversight: The Role of Procurement Audits in Safeguarding Public Value – A Case from the Maldives - SAI Maldives

Financial reconciliation played a central role, involving cross-verification of disbursed payments against approved budgets and actual work completed. The audit identified overpayments of USD 1.3 million for incomplete works, with repayment delayed by five years and executed at a rate far below the agreed interest for delayed payments. Additionally, excessive advances totalling USD 8 million, which was more than double the agreed amount, were disbursed without proper documentation or contractual basis.

Elevators procurement was particularly problematic, revealing that over USD 1.8 million was paid for only seven elevators, far exceeding market rate of USD 454,000, and indicating poor planning and potential wastage.

Transparency and Accountability: PAC Hearings and Public Attention

Transparency in public procurement is foundational to good governance. In the case of the Blues Housing Project, transparency failures were at the heart of many of the project's most serious issues. The audit therefore placed special emphasis on evaluating the availability and completeness of procurement documentation, the clarity of contract amendments, and the traceability of financial decisions. This focus revealed that several procurement actions lacked proper documentation, and contract variations were frequently approved without sufficient justification.

The audit's findings were presented at Public Accounts Committee (PAC) hearings, drawing significant public and media attention. Extensive coverage amplified calls for accountability and reform, with stakeholders demanding stricter enforcement of procurement regulations and greater transparency in future projects.

Value for Money: Beyond Cost Efficiency

Value for money (VFM) in public procurement is not solely about securing the lowest price. It encompasses the quality of goods and services delivered, timeliness of execution, sustainability of results, and long-term impact on beneficiaries. Although the initial cost estimates appeared reasonable, the audit revealed that the final expenditure nearly doubled due to delays, contract reassignments, and scope changes. In addition, the audit identified significant gaps in performance monitoring and noted the absence of enforcement mechanisms such as penalty clauses for delays. These methodological steps led to the conclusion that weak planning and the lack of performance-based contracting had contributed to inflated costs and diminished project outcomes. As a result, the audit recommended strengthening pre-tender planning, enforcing contractual accountability, and institutionalising post-project evaluations to ensure that future public investments deliver measurable and sustainable value.

Institutional Learning and Reform

The audit's most enduring contribution lies in its recommendations for reform. In response to these findings, the audit proposed a series of forward-looking recommendations aimed at strengthening public procurement governance. These included the development of standardised procurement templates, mandatory documentation protocols, and the integration of risk-based planning approaches. Additionally, the audit emphasised the need for targeted capacity-building initiatives for procurement officers, focusing on contract management, financial accountability, and ethical decision-making.

By translating audit insights into actionable reforms, institutions can move beyond reactive compliance and embrace proactive stewardship. This shift is essential to ensure that public procurement not only adheres to legal standards, but also delivers sustainable value to citizens, particularly in large-scale infrastructure projects where the stakes are high and the impact is long-lasting.

Conclusion

The audit of the Blues Housing Project demonstrates how a methodologically sound procurement audit can serve as a powerful instrument for public sector reform. By applying a structured approach that combined document analysis and review, financial reconciliation, stakeholder engagement, and benchmarking, the audit provided a comprehensive evaluation of procurement integrity and performance. It moved beyond identifying isolated issues to uncover systemic weaknesses and propose actionable reforms. In doing so, it reinforced the critical role of procurement audits not only in detecting non-compliance, but in guiding institutions toward better governance, improved accountability, and sustainable value for money. As governments continue to invest in large-scale infrastructure and social programmes, audits of this calibre are essential to ensure that public resources are managed with transparency, discipline, and a commitment to public interest.

Irregularities in public procurement are repeated year after year. This means that public funds are not used fully in accordance with the principles of economy, efficiency and effectiveness. Due to the potential risks that this area carries, such as corruption, lack of transparency, and uneconomical conduct, public procurement is always in the focus of the State Audit Institution of the Republic of Serbia. By conducting compliance audits and combined financial and compliance audits, the auditors have determined that irregularities in public procurement relate to the fact that the public procurement procedure was not carried out, that public procurement was not adequately planned, but also that the procedures for implementing public procurement and executing concluded contracts have significant irregularities.

In order to best answer the question of whether the auditees' public funds are used rationally, economically and efficiently, in 2022, the SAI conducted a combined compliance and performance audit in the area of public procurement for the first time. The aim of this type of audit is to examine systemic problems in public procurement among the same group of users of public funds. By combining the findings and recommendations from multiple reports into one, it provides easier insight into information from certain areas of the public sector, i.e. it facilitates access for the competent parliamentary committees and other stakeholders to the observed systemic problems listed in those reports.

In 2022, the SAI reviewed the public procurement systems of nine secondary school student dormitories and 15 local government units and prepared individual audit reports with conclusions and findings, as well as consolidated reports. In 2023, problems were observed in the public procurement system at nine secondary education institutions and nine healthcare institutions.

Regularity and efficiency of public procurement planning in local government units among direct users of budget funds

As many as 14 out of 15 local government units, i.e. auditees, did not prepare public procurement plans based on previously determined and expressed real needs in the procedure and in the manner prescribed by internal acts on public procurement, according to the Consolidated Report on Compliance and Performance Audit "Regularity and Efficiency of Public Procurement Planning in Local Government Units Among Direct Users of Budget Funds".

The same auditees, in the public procurement planning procedure, did not primarily use all the information collected through market surveys and research, because they did not implement the above actions in a regular and efficient manner in compliance with internal acts, nor did they fully record and document them in writing.

All auditees did not implement public procurement plans in a timely manner and to the planned extent, taking into account the planned timeframe for initiating public procurement procedures, the planned number of procedures, the estimated and contracted value of the procurement items, while several subjects implemented the procedures in a timely manner, but the overall Public Procurement Plan was not implemented to the planned extent.

The most common problem identified by the SAI in these audits is that, despite the legal obligation to record and document all actions in the public procurement planning process, no local government unit has fully documented them.

Local government units provide services that directly affect the quality of life of all citizens of the Republic of Serbia. In order for these services to be of higher quality, it is necessary to increase the efficiency of public procurement planning by involving all stakeholders in realistic and prioritized needs identification, along with market research. This will contribute to the adequate management and disposal of budget funds during the year and the timely satisfaction of needs, is the main message of the consolidated report.

Regularity and efficiency of procurement procedures in secondary education institutions

The subject of this audit was to examine the regularity and efficiency of procurement procedures in secondary vocational schools, which refers to procurement planning, implementation of procurement procedures and monitoring of the execution of public procurement contracts. In the audit of nine secondary schools, the SAI found that there were irregularities in all phases of the procurement procedure.

The main causes of this situation in secondary vocational schools are the lack of professional staff in the area of organizing and implementing procurement procedures, as well as the inability to adequately plan procurement due to uncertainty in securing funds for these purposes in the local government budget.

In order to use public funds more rationally, secondary vocational schools need to establish a more efficient procurement system, especially in the area of procurement planning and monitoring of contract execution, which could contribute to improving the conditions of education and upbringing in terms of space, equipment and teaching materials.

Regularity and efficiency of public procurement procedures in student standard institutions

Meeting the needs of children living in student dormitories could be more efficient if more attention was paid to procurement planning and monitoring the implementation of public procurement contracts, is the conclusion of the Consolidated Report on Compliance and Performance Audit “Regularity and Efficiency of Public Procurement Procedures in Student Standard Institutions”.

In the audit process of nine student dormitories, the SAI determined that they pay the least attention to the procurement planning process. In the procurement planning part, they mainly rely on the experience of their employees. Seven out of nine student dormitories did not have a developed methodology for expressing needs, nor clear instructions for planning procurement. In the case of expressing needs for food, they did not analyse in detail the parameters that directly affect the subject procurement, such as the number of enrolled students, planned menus, as well as the set standards for the quality of student nutrition, but mainly relied on the experience of employees in the food service.

Only two secondary school student dormitories had a developed methodology for determining the estimated value of the procurement, while the other student dormitories did not document the market research or the criteria they applied when determining the estimated value of the procurement.

The student dormitories did not examine the validity of the estimated value at the time of initiating the procedure, so it cannot be determined whether it was objective and valid at the time of initiating the procedure. The result was that two student dormitories concluded public procurement contracts with a value that was 25% to 50% higher than the estimated value, which indicates that the estimated value was not adequately determined. Also, one student dormitory changed the estimated value of public procurement by 54% compared to the original plan, without clear criteria and explanations. The planning team's control activities in this part were absent, so many of the actions carried out at this stage were not recorded and documented, which is contrary to the regulations.

The student dormitories generally complied with the regulations in the area of public procurement during the implementation of the procedure. However, when defining technical specifications and setting additional criteria for the selection of an economic entity, market research activities were lacking in terms of the number of potential bidders who could respond to the set procurement conditions.

Public Procurement Audits: Enhancing transparency and Value for Money, and the Role of the State Audit Bureau in Achieving That - SAI Qatar

Introduction:

Public procurement Audits are essential factors to ensure optimal management and proper spending of public funds. They also aim to uphold important principles such as fairness, openness, equality, transparency, equal opportunities, freedom of competition, preventing waste of public funds, proper funds utilization and achieving value for money. This is achieved by verifying that all purchasing procedures are carried out in accordance with applicable laws and regulations. Law No. (24) of 2015 regulating tenders and auctions, its amendments and its executive regulation issued by Cabinet Resolution No. (16) of 2019 and amended by Cabinet Resolution No. (11) of 2022, constitute the legal framework for regulating all public purchasing operations, including those in ministries, other government agencies, public bodies and institutions, with the exception of what the legislator stipulates in the aforementioned law. The aforementioned law and its executive regulation aim, through the texts contained therein, to ensure the implementation of the aforementioned principles.

To ensure that all purchasing procedures are carried out in accordance with the laws and regulations, and to implement these principles, the role of the State Audit Bureau is essential. As an independent audit body directly reporting to His Highness the Emir, the Bureau exercises control over the funds and works of the entities subject to its audit, ensuring the soundness and validity of the procedures followed in accordance with the laws and regulations, including the Tenders and Auctions Regulation Law and its executive regulation, as they are applicable to public procurement in the state. The Bureau exercises its mandate and control in accordance with Law No. (11) of 2016 concerning the State Audit Bureau. To verify all of that, the Bureau conducts three types of audits in terms of timing: pre-audit, concurrent audit and post audit.

Accordingly, in this article we will shed light on the role of the Tenders Regulation Law and its executive regulation within the framework of promoting the aforementioned principles in (the first theme), and then the types of audits conducted by the Bureau and their impact on auditing public procurement in a way that implements the aforementioned principles in (the second theme).

Theme one: The role of the Tenders and Auctions Regulation Law and its executive regulation in promoting the principles of fairness, openness, equality, transparency, freedom of competition, and value for money

The Tenders and Auctions Regulation Law and its executive regulation address a set of controls and procedures for all stages of the tendering process and the like, which aim to implement the aforementioned principles. In this section, we will outline the most prominent controls that address these principles.

First: The existence of a unified website for state procurement

Pursuant to Article No. (107) of the executive regulation of the Tenders and Auctions Regulation Law, a unified website for state procurement has been established, which is supervised by the ministry of finance, represented by the government procurement regulatory department. Government agencies subject to the provisions of the Tenders and Auctions Regulation Law must commit to announcing all tenders and the results of opening envelopes as well as awarding them on the website. This website also allows the public to view all government tenders and track their progress, starting from the tendering stage, up to the awarding stage, in a way that implements the principles of transparency, openness and integrity.

Second: The existence of a competent tender committee within the government entity

Under Article No. (9) of the Tenders and Auctions Regulation Law, a committee shall be established in the government entity and shall be competent to conduct tenders, auctions, procedures and the like. It shall be composed of employees from the government entity whose number shall not be less than five nor more than seven, including the committee chairman and his deputy. Pursuant to Article No. (13) of the executive regulation of the Tenders and Auctions Regulation Law, it is required that no member of the committee be an administratively subordinate to the chairman of the meeting, and no employee of the competent department in the entity may chair the committee's meetings. Pursuant to Article No. (11) of the aforementioned executive regulation, the competent tenders committee is responsible for the procedures for issuing tenders, auctions and the like, receiving, opening, reviewing and evaluating bids and issuing recommendations regarding their award, in addition to other competencies stipulated in the aforementioned article. Here it becomes clear that the existence of a competent committee comprised of a group of members in accordance with the aforementioned controls, which considers procurement issues, contributes significantly to achieving transparency and integrity, fair competition and emphasizing compliance with applicable laws and regulations.

Public Procurement Audits: Enhancing transparency and Value for Money, and the Role of the State Audit Bureau in Achieving That - SAI Qatar

Pursuant to Article No. (13) of the indicated executive regulation, the validity of the committee's meeting shall be subject to the attendance of the majority of its members, and two observer members: one from the Bureau, and the other from the government procurement regulatory department at the ministry of finance, without having the right to vote. The committee issues its recommendations by a majority of the votes of the members present, which ensures that recommendations are issued objectively and impartially and enhances transparency.

Third: The existence of a special committee to resolve administrative disputes

As per Articles No. (37) and (38) of the Tenders and Auctions Regulation Law, one or more committees shall be established at the ministry of finance and shall be called the administrative dispute resolution committee, which shall be competent to urgently adjudicate all administrative disputes arising from the application of the provisions of the Tenders Regulation Law and its executive regulation, by a reasoned decision prior to the conclusion of the contract. The committee may suspend the tender procedures until the grievance is decided upon, as the aforementioned committee allows any aggrieved party to submit a substantive grievance to it. There is no doubt that the existence of this committee contributes significantly to ensuring compliance with the Tenders and Auctions Regulation Law and its executive regulation by preventing any violations thereof, in order to implement the principle of fairness and equal opportunities. There is no doubt that requiring the reasons for the committee's decisions ensures the upholding of the principle of transparency.

Fourth: Avoidance of conflict of interests

Pursuant to Article (15) of the executive regulation of the Tenders and Auctions Regulation Law, neither the chairman of the committee, his deputy, nor any member of the competent tender committee may have a direct or indirect interest in the matters presented to the committee. Furthermore, none of them may be a partner of any of the bidders, their agent, a member of their board of directors, or an employee of theirs, whether the bidder is a natural or legal person. If any of the above applies to the chairman, his deputy, or any of the members, they must disclose and withdraw from participating in the procedures for those matters. The purpose of having controls that prevent conflicts of interest is to maintain the neutrality of the decisions taken and prevent them from being influenced by direct or indirect personal interests. This enhances the principles of transparency, integrity, fairness, equal opportunities, and the safeguarding of public funds. Furthermore, pursuant to the aforementioned article, it is not permissible to combine the chairmanship or membership of the committee with the approval of its recommendations. There is no doubt that this separation aims to prevent conflicts of interest, enhance the principles of justice and transparency, achieve dual audit, and enhance trust that the process was conducted in accordance with due process and impartiality.

Also, in accordance with Article No. (33) of the Tenders and Auctions Regulation Law, it is prohibited for government entity employees who assume job duties and responsibilities related to contracts concluded by this entity to have any direct or indirect interest in those contracts. It is also not permissible for any of these employees to be a partner of bidders, their agent, or a member of their board of directors, or an employee of theirs. In this case, they must declare any interest they have that may overlap with the nature of their aforementioned responsibilities. The aforementioned article has specified exceptions to the aforementioned controls. There is no doubt that the existence of these controls on government entity employees enhances the principle of transparency and trust in the government entity, prevents conflicts of interest, and achieves fairness.

Fifth: The existence of controls on the entity's needs tendering through exceptional means

Under Article No. (2) of the Tenders and Auctions Regulation Law, public tendering is the general principle in tendering the needs, which promotes all the aforementioned principles and ensures fair competition as well as preventing monopoly. However, tendering may be done as an exception through limited tender, practice, or direct agreement. These exceptions were created by the legislator for the purpose of flexibility and to meet needs according to their nature as well as for rapid response. However, they are in accordance with the controls stipulated in the Tenders and Auctions Regulation Law and its executive regulation so that they are not misused and to ensure fairness, equality, transparency, freedom of competition, and equal opportunities. In the direct agreement, there must be, for example, but not limited to, justifications for an emergency or urgent situation or the existence of an exclusive agency. Also, all types of tendering by exceptional means are pursuant to a decision by the head of the entity based on a reasoned recommendation from the competent tenders committee, thereby enhancing the confirmation of the availability of these justifications or not.

Public Procurement Audits: Enhancing transparency and Value for Money, and the Role of the State Audit Bureau in Achieving That - SAI Qatar

Sixth: Defining the needs of the entity clearly and accurately

Pursuant to Articles (2), (3) and (4) of the executive regulation of the Tenders and Auctions Regulation Law, the entity's needs must be clearly and precisely defined and must be necessary and essential for the workflow, and must not be intended to exhaust the financial appropriations allocated to the government entity. Tendering must be within the limits of actual needs and based on precise and detailed technical specifications without specifying the country of origin, a specific brand or specifications that apply to special or distinctive models, with the exception of needs related to maintenance services, spare parts or programs associated with devices and equipment used within the government entity. All of this aims to reduce corruption of assigning the matter to a specific company. This enhances the principles of transparency, fairness, equal opportunities and freedom of competition.

Seventh: The existence of controls on the evaluation mechanism for technical bids

As per Article No. (42) of the executive regulation of the Tenders and Auctions Regulation Law, the technical review team must consist of a number of no less than two member. The evaluation of bids must be conducted in a clear and structured manner, ensuring that all the required technical elements are addressed. Vague or general expressions such as 'non-conformity', 'unacceptable' or 'in violation', are not sufficient and should be avoided in the evaluation process. It is not permissible to contact the bidders except through the competent tenders committee, and only for the purpose of obtaining the necessary clarifications and confirmations regarding the bids they have submitted. Under no circumstances should such communication involve requests for amendments or changes to the submitted bids, including prices, conditions or specifications on which the tender was originally based. Also, in the case of adopting the points-based evaluation method when tendering, it must be applied to all bidders during the bids review process. This ensures upholding the principles of transparency, fairness and equal opportunities among all submitted bids.

Eighth: Awarding the contract to the best bid and the existence of controls in the event that the highest bid is chosen directly

Pursuant to Article No. (47) of the executive regulation of the Tenders and Auctions Regulation Law, the committee recommends awarding the tender to the best bid (such as the lowest total price offered or the lowest financial result in the case of applying the local value) that meets all conditions and conforms to the required technical specifications, after unifying the basis for comparison between bids in all technical and financial aspects. As an exception, the committee may recommend awarding the tender directly to the highest bid, but this shall be in accordance with the controls and cases specified in the aforementioned article. It is required that the committee issue its recommendation by unanimous vote of its attending members based on a reasoned recommendation. This shall apply in cases where: the prices of the lowest bids are unrealistically low and do not warrant reassurance; or the quality levels offered by the bids differ and the price difference between the lowest and highest bids is small compared to the difference in quality. The existence of these controls and conditions also clarifies that the committee's recommendation is not preferential to favor a particular company, but rather is based on objective considerations announced in a clear and precise manner, in order to uphold the principle of transparency and fairness, and achieve a balance between cost and quality, thereby achieving public interest and value for money.

The second theme: The Audits exercised by the Bureau and their impact on public procurement auditing in a manner that upholds the principles of fair competition, openness, equality, transparency, and value for money

In this section, we will explain the three types of audit exercised by the Bureau (pre-audit, concurrent audit, and post audit), which contribute to public procurement auditing in a manner that achieves the aforementioned principles.

Public Procurement Audits: Enhancing transparency and Value for Money, and the Role of the State Audit Bureau in Achieving That - SAI Qatar

First: pre-audit

It is a set of audit procedures carried out by the Bureau on the actions of the entities subject to its pre-audit, which aims to prevent any errors or violations before they occur. The entities subject to pre-audit are directed to correct their paths when exercising their powers in using public funds. This prevents these entities from making mistakes, and therefore it is called preventive audit. Pursuant to Paragraph No. (5) of Article No. (7) of the State Audit Bureau Law, documents of draft tenders and auctions that the entities subject to the Bureau's audit intend to tender, and the draft contracts and agreements that they intend to conclude or renew, if the estimated value of the tender or auction, or the value of the contract or agreement, or the value of the annual automatic renewal of periodic supply contracts and lease contracts is amounted to five million Qatari Riyals or more, regardless of the method chosen in contracting. All these documents shall be reviewed during the pre-audit stage conducted by the Bureau. It will also provide an opinion thereon.

Pursuant to Article No. (10) of the State Audit Bureau Law, pre-audit includes three stages:

1. The stage of requesting the approval of the State Audit Bureau for the tendering:

During this stage, the Bureau is provided with all required tender documents, evidence of the availability of financial appropriations, and other required approvals. These include, but are not limited to, the approval of the head of the entity based on a reasoned recommendation from the committee, if the request is for a limited tender or practice.

During this stage, the Bureau reviews and audits all documents to ensure they meet all requirements and comply with applicable laws and regulations. This includes, but not limited to:

- Ensuring the scope of work clearly and accurately describes all needed requirements;
- Ensuring that there are no specifications or terms directed to specific companies;
- Ensuring that there is a clear and specific mechanism for evaluating bids, through which submitted bids are accepted or rejected. Furthermore, other documents are verified in accordance with applicable laws and regulations, thus upholding the principles of fairness, transparency, equality, free competition, and equal opportunity among submitted bids.

2. The stage of requesting the approval of the State Audit Bureau to conclude the contract:

During this stage, the Bureau is provided with the documents pertaining to the draft contract, as well as any other required approvals, such as the approval of the head of the entity based on a reasoned recommendation from the committee in the case of direct agreements.

During this stage, the Bureau reviews and audits all documents to ensure they meet and comply with all requirements in accordance with applicable laws and regulations. If the draft contract project results from a public tender, the Bureau ensures that all tender procedures adhere to the principles of fairness, openness, transparency, equality, and equal opportunity. For example, it ensures that a copy of the tender announcement is available on the unified website for state procurement, that bids were evaluated in accordance with the terms and specifications on which they were submitted, and that the award was made to the best bid, with the lowest total price and lowest financial result if the local value is applied, and that the best bid meets all conditions and complies with the required technical specifications. This is after unifying the basis for comparison between bids in all technical and financial aspects. If the tender is awarded directly to the highest bid, the Bureau ensures that the controls and conditions stipulated by the legislator are met, in order to uphold the aforementioned principles among all submitted bids, and that the state obtains real value for the public funds spent, achieving value for money.

3. The stage of providing the State Audit Bureau with the concluded contract:

Entities subject to pre-audit must provide the Audit Bureau with a copy of their concluded contracts and agreements within 30 days of their signing.

During this stage, the concluded contract is reviewed and compared to the draft contract previously approved by the Bureau, ensuring that no changes have been made thereto; and that any deficiencies required during the draft contract stage are addressed. This stage also ensures that the performance bond (if requested) is valid and covers the full duration required by the contract, thus preserving the rights of these entities and ensuring that companies are fully committed to proper implementation of the contract.

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Second: Concurrent audit

The State Audit Bureau's concurrent audit is responsible for overseeing the work of the competent tender committees of the entities subject to its concurrent audit. This is done by the State Audit Bureau's auditors who have been assigned by His Excellency the President of the State Audit Bureau, from amongst the Bureau's adequately competent and experienced employees to attend the meetings of the committees to verify that all required procedures are carried out in accordance with the established financial and legal rules. It is worth clarifying that the role of the State Audit Bureau's observer member coincides with the progress of the procedures to ensure their compliance with applicable laws and regulations. Accordingly, we will explain below the role of the State Audit Bureau's observer member in auditing public procurement and ensuring the soundness and validity of the procedures followed by the competent tender committee.

1. Attendance of the State Audit Bureau's observer member at the relevant tender committee meetings:

The legislator stipulated that the presence of the State Audit Bureau's observer member is mandatory for the competent tender committee to convene in order for it to be valid.

The legislator requires that the State Audit Bureau's observer member be notified to attend the relevant tender committee meeting at least one working day prior to its convening. The notification must include the agenda and any related attachments for the purpose of reviewing and studying the topics thoroughly in accordance with applicable laws and regulations.

2. The role of the State Audit Bureau's observer member during the meetings of the competent tender committee:

- Auditing all stages of the tender process and the like, starting from the tendering stage to the awarding stage, with the aim of verifying that all procedures were carried out in accordance with applicable laws and regulations to ensure the upholding of the principles of fairness, openness, transparency, equality, free competition, equal opportunities, and achieving value for money. This includes, but not limited to:
- Ensuring that the tender specifications and conditions are clearly and precisely defined without any directives;
- Verifying the availability of the requirements for the validity of the tender application, and that the evaluation of bids was carried out in accordance with the terms and specifications on the tender was based; and
- Ensuring the award was made to the best bid, viz; the lowest total price offered or the lowest financial result in the case of applying the local value, and that bid meets all conditions and conforms to the required technical specifications, after unifying the basis for comparison between bids from all technical and financial aspects. If the tender is awarded directly to the highest bid, verifying the availability of the controls and conditions is required by the legislator.
- Reviewing all matters arising in the implementation of concluded contracts, such as change orders, final settlements for contract termination, and other terms of references mentioned in the Tenders and Auctions Regulation Law and its executive regulation, in order to ensure that they are fulfilled in accordance with applicable laws and regulations.
- Raising any question or inquiry to the committee regarding the subjects included in the agenda, and expressing his opinion, observations and reservations during the meeting, and to document them in the minutes of the committee meeting together with any decisions issued, in the event of violations of the applicable laws and regulations.

Third: Post audit

Post Audit of public procurement is concerned with auditing and reviewing the financial and administrative operations carried out by entities subject to the Bureau's post audit after these operations have been concluded in order to verify their compliance with the contractual terms and that the procedures preceding them were carried out in accordance with the applicable laws and regulations. It also involves detecting any violations or irregularities, as well as requesting their remediation as appropriate, and recommending ways to avoid them in the future.

This includes, but not limited to, the post audit verifies that the purchasing process has met all the needed requirements according to the laws and regulations applicable to the entity subject to post audit by doing the following:

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- Ensuring that the disbursement was made in alignment with the allocated item in the budget, and that the contracts concluded for the entities subject to the Bureau's pre-audit were presented to the State Audit Bureau to obtain its approval if they are amounted to the prescribed financial amount of (5,000,000) Qatari Riyals or more;

- Verifying that purchases were not divided to avoid the financial limits specific to the tendering procedures by the competent tender committee;

- Verifying the availability of performance bonds, if stipulated in the contract, and that they cover for the entire period required by the contract, and that late payment penalties are also applied as stipulated in the contract in the event of any delays.

- Ensuring there are receipt records for items or a completion certificate for services or business contracts. The entity must ensure adequate audit over payments made to contractors and that disbursements are made to the contractor in accordance with the contractual terms, ensuring the principles of legitimacy, transparency, and fairness, as well as safeguarding public funds.

The post audit of public procurement also ensures that contracts are executed efficiently and effectively and achieve the desired results for the government entity. This is achieved by measuring the feasibility of the project on the basis of which the contract was made and its impact in terms of providing value for the money spent and ensuring that the objective is not to waste public funds without benefit, thus upholding the principle of value for money.

Conclusion:

The importance of public procurement auditing is clearly evident, as it is considered a fundamental factor to ensure safeguarding, proper management and spending of public funds. Furthermore, the existence of a legislative framework regulating the purchasing process ensures the upholding of important principles such as fairness, openness, equality, transparency, equal opportunity, freedom of competition, preventing the waste of public funds, ensuring optimal spending thereof, and achieving value for money. This is guaranteed by the Tenders and Auctions Regulation Law and its executive regulation, which apply to public procurement in the state, through the provisions contained therein. The role of the State Audit Bureau, as an independent audit body, is to control the funds and activities of the entities subject to its audit by verifying the legality of all purchasing procedures and their compliance with applicable laws and regulations, thereby upholding these principles. This is achieved through the types of audits exercised by the Bureau in terms of their timing.

References:

- Law No. (11) of 2016 regarding the Audit Bureau.
- Law No. (24) of 2015 regulating tenders and auctions and its amendments.
- Cabinet Resolution No. (16) of 2019 issuing the executive regulation of the Tenders and Auctions Regulation Law promulgated by Law No. (24) of 2015, as amended by Cabinet Resolution No. (11) of 2022.

The Future of Public Procurement Audit in the BANI World: Redefining Integrity through the 5Vs Audit Criteria - SAI Thailand

By Dr. Sutthi Suntharanurak
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Introduction: Public Procurement in an Age of Systemic Fragility

In today’s world, procurement is no longer a routine administrative function. It is a strategic lever that determines how governments respond to crises, allocate resources, and maintain public trust. The COVID-19 pandemic, climate emergencies, and supply chain disruptions have exposed the vulnerabilities of existing procurement systems. These disruptions are not merely operational. They are systemic, demanding that public procurement adapt in both mindset and mechanism.

This evolving context is best understood through the **lens of the BANI world: Brittle, Anxious, Nonlinear, and Incomprehensible**. In such a world, Supreme Audit Institutions (SAIs) must rethink their role. Traditional audits that rely on post-facto reviews and linear checklists are insufficient. Instead, public procurement audits must become anticipatory, adaptive, and capable of safeguarding integrity under complexity and pressure.

This article proposes the **5Vs Audit Criteria**—a future-focused audit framework that expands the classical 3Es (Economy, Efficiency, and Effectiveness) and introduces a new language of value, vigilance, and verification for modern public procurement.

Beyond the 3Es: The 5Vs as Audit North Stars

The 3Es served the audit profession well in an era of relative stability. However, they offer a limited view when procurement becomes a mechanism for resilience, digital transformation, and social protection. **In contrast, the 5Vs framework redefines what SAIs should observe, measure, and influence in the procurement process.**

- **Value for Money** no longer means just cost-saving. Auditors must examine whether procurement decisions generate long-term public value, enhance social equity, and promote sustainability.
- **Vigilance** calls for proactive risk sensing through real-time analytics. Instead of reacting to fraud or corruption after it happens, SAIs should detect procurement anomalies through AI, data mining, and red flag indicators.
- **Velocity** focuses on the ability of procurement systems to respond rapidly to public needs—especially during emergencies—while upholding ethical standards. The pace of action must not come at the expense of integrity.
- **Visibility** demands transparency at every stage. This means more than just publishing contract summaries; it includes using open data platforms, promoting civic tech tools, and fostering participatory oversight.
- **Verifiability** ensures that all procurement decisions are traceable and documented, enabling both accountability and learning. This is crucial in complex digital environments where procurement may involve algorithmic decision-making.



The Future of Public Procurement Audit in the BANI World: Redefining Integrity through the 5Vs Audit Criteria - SAI Thailand

Together, the 5Vs do not replace the 3Es—they enhance them. They enable SAIs to audit not only financial compliance but also systemic coherence, ethical soundness, and societal impact.

Strategic Responses for a BANI World

Auditing in a BANI world is less about predicting outcomes and more about preparing for the unexpected. Each component of the BANI acronym represents a systemic stressor that affects public procurement, and each demands a deliberate audit response.

Brittle systems, marked by fragile supply chains and over-reliance on single vendors, require audits that assess structural resilience. SAIs should examine diversification strategies, redundancy planning, and procurement resilience indicators.

Anxious societies—where public trust in institutions is eroding—necessitate audit communication strategies that go beyond technical language. SAIs must produce clear, engaging reports that resonate with the public and explain how procurement safeguards public interest.

In a **nonlinear** world, procurement needs shift unpredictably. Traditional audit cycles may be too slow. SAIs should explore scenario-based audit planning and real-time data dashboards to track dynamic risks and priorities.

Finally, the **incomprehensible** nature of modern digital procurement platforms—integrated with AI, blockchain, and smart contracts—requires auditors to upskill. Algorithmic accountability, digital forensics, and cyber-risk audits are now part of the new audit repertoire.

The lesson is clear: what cannot be understood cannot be audited. SAIs must build capacity to audit emerging systems while collaborating with experts in data science, digital ethics, and procurement innovation.

Conclusion: From Retrospective to Transformational Auditing

The future of public procurement auditing lies not in catching mistakes but in designing systems that minimize them. SAIs have a historic opportunity to shift from transactional oversight to transformational leadership. The 5Vs offer a strategic compass for this shift—embedding integrity, adaptability, and systemic foresight into procurement auditing.

As we move deeper into an era of volatility and complexity, auditing must serve not only the rule of law but the resilience of public institutions. Procurement is where policy meets implementation—and where integrity is either upheld or undermined.

By embracing the 5Vs, SAIs can help governments spend not only wisely, but justly and wisely—delivering public value even in the most uncertain times.

“The audit of tomorrow is not about catching errors, but about designing resilient and ethical systems for public value.”

The role of supreme audit institutions in the oversight and audit of green public procurement: transparency and accountability - SAI Vietnam

Green Public Procurement (GPP) is an irreversible trend in the context of an escalating global environmental crisis and increasingly severe climate change. In Viet Nam, alongside the refinement of the legal framework and international commitments to achieving net-zero greenhouse gas emissions by 2050, policies to promote GPP have been promulgated and implemented. In this process, the role of the State Audit Office of Viet Nam (SAV) – the supreme authority for public financial oversight – is particularly critical in ensuring that GPP is conducted in compliance with regulations, in a transparent, effective, and accountable manner.

1. Green Public Procurement in Viet Nam: Legal Framework and Practical Orientation

In Viet Nam, Green Public Procurement (GPP) has been progressively institutionalised and integrated into key legal instruments in order to advance the objectives of green growth, environmental protection, and sustainable development. The first significant legal foundation is the Law on Environmental Protection 2020 stipulates: “Priority shall be given to the implementation of green procurement for investment projects and tasks utilising State budget resources, as prescribed by the Government.” This marked the first time that the concept of “green procurement” was formally codified within the Vietnamese legal system, representing a significant milestone in both policy awareness and legislative institutionalisation.

Subsequently, the Law on Bidding 2023 inherited and further reinforced the principle of prioritising environmentally friendly products and services in public procurement activities. Specifically, the Law expressly sets forth the principle of procurement as “encouraging the procurement of environmentally friendly products and services, thereby promoting sustainable development.” This provision constitutes not only a strategic policy direction but also a firm legal basis for Owners and procuring entities to incorporate environmental criteria into bidding documents and the bid evaluation process.

In parallel, Decree No. 08/2022/ND-CP of the Government in 2022, providing detailed guidance on certain provisions of the Law on Environmental Protection, also contains explicit regulations on GPP. The Decree requires State agencies, when organising procurement and tendering, to integrate environmental criteria into bidding documents, particularly in sectors such as construction, information technology, medical equipment, and office supplies. This serves as a crucial operational step to concretise the statutory provisions and to facilitate effective implementation by executing entities.

Beyond the mere improvement of the legal framework, the Government of Viet Nam has adopted a long-term strategy for greening public finance through the issuance (in 2021) of the National Strategy on Green Growth for the 2021–2030 period, with a vision to 2050. Within this framework, a specific target has been set: by 2030, at least 35% of the total value of public procurement funded by the state budget shall comprise products, goods, and services meeting environmental criteria, with this proportion rising to 50% by 2045. This reflects the Government’s strong commitment to leveraging public procurement as a catalyst for promoting sustainable consumption and production across the entire economy.

2. The role of the SAV in overseeing, shaping, and promoting Green Public Procurement in Viet Nam

As the nation’s Supreme Audit Institution, the SAV not only fulfils its mandate to oversee the management and utilisation of public finance and public assets in compliance with the law and in accordance with principles of economic prudence, but is also progressively expanding the scope, content, and methodologies of its audits to meet the demands of sustainable development in the current era.

In the context of the Government of Viet Nam’s strong commitment to green growth and achieving net-zero emissions by 2050, the SAV’s mandate extends beyond the conventional “right-wrong” assessment of expenditure. It now also encompasses evaluating the extent to which environmental and social criteria are integrated into the use of state budget resources, particularly in large-scale public investment projects and procurement packages.

Incorporating criteria such as greenhouse gas emissions, resource efficiency, product life-cycle considerations, and impacts on biodiversity into audit examinations will enhance the quality of audit recommendations. This, in turn, can drive institutional reforms and safeguard public assets not only from a financial perspective, but also from an environmental standpoint – a dimension traditionally underrepresented in conventional auditing methodologies.

In practice, the SAV has already initiated several audit activities incorporating environmental aspects. Notable examples include:

The role of supreme audit institutions in the oversight and audit of green public procurement: transparency and accountability - SAI Vietnam

(i) The audit of investment, procurement, application of software, and contracting of information technology services at selected ministries and agencies for the period 2020–2022, which not only assessed compliance in procurement and implementation of digital solutions, but also examined the potential for selecting energy-efficient systems that reduce emissions over the full life cycle of software and equipment, in alignment with the objectives of green public procurement.

(ii) The audit of the management and utilisation of funding for the procurement of national reserve goods for the period 2020–2021, which focused on assessing suppliers' ability to meet environmental protection requirements, the traceability of products, and compliance with sustainable goods standards in procurement financed by the state budget.

(iii) Notably, in the audit of the procurement, management, and utilisation of medicines, medical supplies, and medical equipment, the SAV actively integrated environmental criteria into the audit process. Specifically, the SAV assessed the compliance with the Law on Environmental Protection 2020 and the said Decree No. 08/2022/ND-CP, which explicitly stipulate the requirement to give priority to green procurement in projects funded by the state budget. On this basis, the SAV recommended that ministries and agencies promptly issue or refine guidelines for applying preferential mechanisms for environmentally friendly products, while also proposing the inclusion of mandatory product life-cycle criteria in bidding documents for projects in the information technology and healthcare sectors.

(iv) In addition, a series of thematic audits relating to environmental matters—such as the audit of municipal solid waste management; the audit of the operational effectiveness of the Forest Protection and Development Fund in various localities; the audit of forest protection and development activities and the use of forestry land; and the audit of budgetary expenditure for the climate change response and green growth programme—have indirectly addressed aspects related to green public procurement. These have included evaluating environmental criteria in public investment, the efficiency of resource utilisation, and the transparency of contractor and service provider selection.

Accordingly, although the SAV has not yet conducted a dedicated thematic audit exclusively on green public procurement, it has nonetheless demonstrated a proactive role in progressively integrating environmental considerations into the audit of state budget execution, particularly in sectors with high emission risks or direct links to public investment. This is a necessary direction to advance the greening of public finance and is consistent with the State's sustainable development policies.

The expansion of audit scope from assessing compliance and financial regularity to evaluating the integration of sustainable development criteria—including environmental indicators—is being progressively applied by the SAV through its medium-term audit strategy. The objective is not only to ensure the efficient use of the state budget but also to improve institutional quality and promote green transition in public policy.

In particular, in recent years, the SAV has intensified its application of information technology and big data in audit activities. Through the National E-Procurement System (e-GP), the SAV has deployed advanced data analytics tools, including artificial intelligence (AI), to support risk-based audit sampling, detect anomalies in procurement processes, and gradually build a platform for proactive, continuous monitoring. These developments create favourable conditions for systematically incorporating “green” criteria into the audit processes of state-funded procurement projects in the near future.

In parallel with the modernisation of its operations, the SAV is also actively promoting transparency and accountability by considering the development of a public-facing dashboard displaying audit data on the extent of compliance with environmental criteria in public investment projects. At the same time, the SAV is working towards establishing a multidimensional policy feedback mechanism to ensure that audit recommendations are received, addressed, and effectively utilised in the process of formulating and amending legal regulations.

Beyond its core function of financial oversight, the SAV is progressively assuming a policy-shaping role, serving as a bridge between key stakeholders such as the National Assembly, the Government, ministries, enterprises, and civil society. This forms the foundation for green public auditing to evolve from a purely technical undertaking into a catalyst for institutional reform, thereby advancing the development of transparent, accountable, and sustainable green public finance in Viet Nam.

The role of supreme audit institutions in the oversight and audit of green public procurement: transparency and accountability - SAI Vietnam

3. Challenges in auditing Green Public Procurement

Although the SAV has progressively integrated environmental considerations into its audit activities and identified green auditing—including green public procurement—as one of the priority orientations in its forthcoming Environmental Audit Strategy, in practice, the implementation of stand-alone thematic audits on green public procurement continues to face significant challenges in terms of institutional frameworks, capacity, and operational conditions.

The first and most fundamental challenge lies in the absence of a unified system of criteria, indicators, and assessment tools for determining the “greenness” of public procurement activities. At present, there has been a lack of a specific set of green audit criteria, resulting in considerable uncertainty in selecting audit subjects, defining audit scope and content, and determining appropriate methodologies. While current laws and regulations refer to the requirement to prioritise environmentally friendly products, these provisions have yet to be translated into quantifiable indicators or sufficiently clear technical guidance for auditors to apply in practice. Recently, Viet Nam issued Decision No. 21/2025/QĐ-TTg to establish environmental criteria and procedures for certifying investment projects classified as “green.” This Decision serves as a foundational basis for developing specific criteria to support the implementation of green auditing practices.

In addition, the lack of transparent and comprehensive information on “green” products and services constitutes a major obstacle. Data on life-cycle costs, the origin of raw materials, energy consumption levels, and the overall environmental impact of items procured through public procurement have not yet been standardised or widely disclosed. This not only hampers the process of sampling and assessing environmental performance, but also undermines the ability to compare procurement packages and contractors within the same sector.

Nevertheless, as the supreme audit institution responsible for public financial oversight, the SAV continues to play a central role in promoting green public spending and sustainable development. The gradual improvement of the legal framework, the development of green audit criteria, investment in capacity, and the enhanced application of technology in data analytics are key factors that will enable SAV to progressively overcome current challenges and successfully implement green public procurement audits in the near future.

4. Solutions to strengthen the SAV’s role in auditing Green Public Procurement

To effectively fulfil its role in overseeing and promoting green public procurement, the SAV needs to modernise its audit approach by integrating environmental and sustainable development considerations, updating its practices in line with international auditing standards, investing in human resources and technology, and fostering multidimensional policy dialogue to enhance oversight effectiveness and accountability in public financial management.

As an independent supreme audit institution operating solely in accordance with the law, the SAV plays a critical role in ensuring that public expenditure is not only financially efficient but also contributes positively to the nation’s sustainable development objectives, as well as to the rigorous implementation of Viet Nam’s international commitments—most notably, the target of achieving net-zero emissions by 2050.

First, the SAV should progressively adopt and apply international auditing standards, particularly International Organisation of Supreme Audit Institutions (INTOSAI) Guidance No. 5280, which addresses public procurement auditing from three perspectives: compliance audit, financial audit, and performance audit. The assessment of the effectiveness of “green” objectives in public procurement should be guided by criteria such as life-cycle cost efficiency, the extent of greenhouse gas emission reductions, and the capacity to stimulate the development of sustainable domestic products and services markets.

Second, it is essential to develop and promulgate, at the earliest opportunity, a set of green audit criteria to serve as a legal and professional foundation for assessing the environmental friendliness of products and services in public procurement packages. This process will require coordination among the Ministry of Finance, the Ministry of Agriculture and Environment, and independent expert organisations. The criteria set could draw upon international frameworks such as ISO 20400 on sustainable procurement or guidance issued by the INTOSAI Working Group on Environmental Auditing (WGEA). In parallel, strengthening international cooperation within the frameworks of ASOSAI, INTOSAI, and specialised working groups will enable the SAV to gain more rapid access to modern auditing methodologies, thereby enhancing the quality of green audits.

The role of supreme audit institutions in the oversight and audit of green public procurement: transparency and accountability - SAI Vietnam

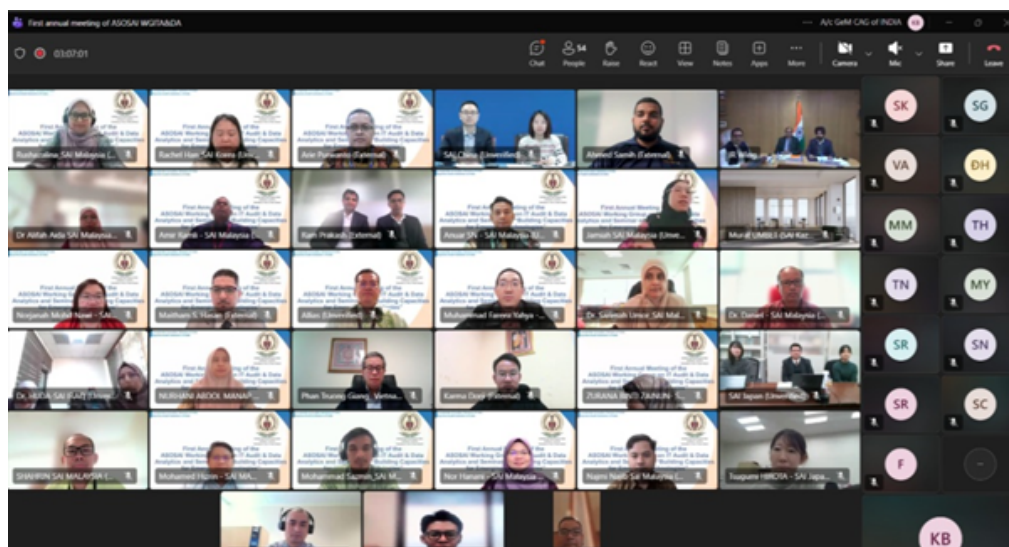
Third, the training and professional development of auditors is crucial. Training content should focus on topics such as green procurement, the circular economy, product life-cycle auditing, environmental impact valuation, as well as data analysis skills and the use of digital tools. Enhancing training cooperation with experienced audit institutions worldwide will help narrow the gaps in expertise, methodology, and practical implementation.

An indispensable element is the application of information technology and big data analytics to support risk-based audit sampling, continuous monitoring, and detection of anomalies in procurement activities. The SAV should continue investing in the development of advanced data analytics platforms capable of integrating information from national systems such as the e-GP, as well as from relevant ministries and agencies, to construct a comprehensive picture of the “greenness” of public expenditure.

Fourth, due attention should be given to communication and awareness-raising on green public procurement as an integral component of the green audit strategy. The SAV could take a proactive role in disclosing audit results relating to environmental issues, organising policy dialogue forums, and providing information to the National Assembly, state agencies, and civil society organisations. This would generate positive pressure on relevant entities to enhance accountability and improve procurement processes. Such actions would not only help disseminate the message of “public spending for the environment” but also reinforce the SAV’s policy-shaping role in the country’s sustainable development process.

ASOSAI News

First Annual Meeting of ASOSAI WGITA&DA and Seminar on “Building Capacities for Emerging Technologies” held virtually on 18-Dec-2025.



SAI India, the ASOSAI Chair and the chair of the ASOSAI Working Group on IT Audit and Data Analytics (WGITA&DA), successfully hosted the 1st annual meeting of the working group and the Seminar on “Building Capacities for Emerging Technologies”, virtually on 18 December 2025. The event was participated by 74 delegates from 19 ASOSAI member Supreme Audit Institutions (SAIs), reflecting strong regional participation and interest in advancing IT Audit and Data Analytics within ASOSAI.

The meeting commenced with a welcome address by Mr. Anand Mohan Bajaj, Deputy Comptroller and Auditor General of India on behalf of the Chair of WGITA&DA. Mr. Bajaj, while welcoming the delegates, highlighted the importance of the emerging technologies in the public auditing arena and building capacity to make the SAI auditors proficient to deal with the intricacies of the technological advances.

During the first session, the members deliberated on the proposed activities and priorities and successfully finalized and adopted the Work Plan for 2025-27.

The second session featured a seminar with an introduced by SAI India on the theme “Building Capacities for Emerging Technologies” followed by thematic presentations by SAI India, SAI Korea and SAI Maldives, providing diverse perspectives on capacity building, use of emerging technologies and preparedness of SAIs to address evolving audit challenges.

After the closing remarks by Mr. Bajaj thanking all delegates for their active participation, constructive engagement and collaborative spirit throughout the meeting and seminar, the meeting concluded with a vote of thanks by the members.

Seminar for Knowledge Sharing ASOSAI Seminar on “Audit on Public Debt” (Nanjing, China, May 2025)

The ASOSAI Knowledge Sharing Seminar on “Audit on Public Debt” was held in Nanjing, China from May 26 to 30, 2025. 30 participants from 25 SAIs attended the Seminar with facilitation and technical guidance provided by Subject Matter Experts (SMEs) from SAI Bangladesh, SAI China and SAI India. A representative of the Capacity Development Administrator of ASOSAI (SAI Japan) managed the event.

The purpose of the Seminar was to share experience (challenges and good practices) and knowledge on “Audit on Public Debt”, among participants. During the Seminar, participants were divided into sub-groups to have discussions based on their country reports on the above theme, followed by presentation sessions. At the end of the seminar, participants presented their action plans to address their challenges, and the Seminar was successfully concluded on May 30, 2025. The detailed seminar report by SMEs is available on the ASOSAI website.



Meeting between the Chair of ASOSAI and EUROSAI President to strengthen Inter-Regional Cooperation at XXV INCOSAI



On the sidelines of the XXV International Congress of Supreme Audit Institutions (INCOSAI) held from 27-31 October 2025 in Sharm El-Sheikh, Egypt, Mr. K. Sanjay Murthy, Comptroller and Auditor General of India and Chairman of ASOSAI, held productive discussions with Mr. Matanyahu Englman, President of EUROSAI and State Comptroller and Ombudsman of Israel.

The meeting underscored the importance of fostering stronger ties between regional organizations of supreme audit institutions to advance the global public audit agenda. As leaders of two of INTOSAI's largest regional bodies, Mr. Murthy and Mr. Englman explored opportunities for enhanced cooperation and knowledge exchange between ASOSAI and EUROSAI.

The leaders engaged in substantive dialogue on several shared audit priorities that are at the forefront of contemporary public sector auditing. These included emerging challenges in digital transformation and cybersecurity auditing, environmental and sustainability audit practices, strengthening audit quality and professional standards, capacity building initiatives for member SAIs, and innovative approaches to performance auditing in an evolving global landscape.

Meeting between Chair of ASOSAI with the President of European Court of Auditors and PSC Chair to discuss implementation of INTOSAI Standards.



Mr. K. Sanjay Murthy, Comptroller and Auditor General of India and Chairman of the Asian Organization of Supreme Audit Institutions (ASOSAI), held a significant meeting with the President of the European Court of Auditors and Ms. Helga Berger, Chair of the INTOSAI Professional Standards Committee (PSC), on the sidelines of the XXV International Congress of Supreme Audit Institutions (INCOSAI) held from 27-31 October 2025 in Sharm El-Sheikh, Egypt.

Meeting between the Chair of ASOSAI and EUROSAI President to strengthen Inter-Regional Cooperation at XXV INCOSAI

The meeting focused on the critical role that regional organizations play in ensuring the effective implementation of INTOSAI standards across their member Supreme Audit Institutions (SAIs). This discussion comes at a crucial time as the global audit community continues to strengthen professional standards and enhance audit quality worldwide.

The leaders had in-depth discussions on how ASOSAI and other regional organizations serve as vital bridges between INTOSAI's global standard-setting activities and the practical implementation challenges faced by individual SAIs. They recognized that regional bodies are uniquely positioned to support their members in adopting and applying INTOSAI standards by tailoring guidance to regional contexts, facilitating peer learning and knowledge sharing, providing targeted capacity building programs, and addressing specific implementation challenges faced by SAIs in their regions.

The meeting concluded with a shared commitment to strengthening the partnership between ASOSAI, the European Court of Auditors, and the INTOSAI Professional Standards Committee. The leaders recognized that effective implementation of INTOSAI standards is essential for enhancing audit quality, credibility, and impact across the global SAI community.

Board of Audit of Japan - New President and Commissioner Appointed



Mr. HARADA Yuhei assumed the Presidency of the Board of Audit of Japan on April 1, 2025, succeeding Dr. TANAKA Yayoi, who retired from the position on March 19, 2025.

Prior to assuming his current position, Mr. HARADA served as Commissioner of the Board (since 2024) and as Acting President upon Dr. TANAKA's retirement. Before that, he had worked as Secretary General of the Board of Audit of Japan.

In a related move, Ms. TANAKA Junko was appointed as Commissioner of the Board on March 27, 2025. Before her appointment, she had worked as Managing Director, NHK WORLD Department, NHK (JAPAN BROADCASTING CORPORATION) and part-time lecturer at Sofia University.

For additional information, contact us via email at liaison@jbaudit.go.jp or visit <http://www.jbaudit.go.jp/english/>.

Featured Articles

Big Data Analytics and Generative Artificial Intelligence for Government Construction Audits: Opportunities for Detecting Anomalies and Fraud - SAI Indonesia



Dr. Ir. Al Ansori
Trainer at BPK Training Institute

Introduction

Auditing government construction projects is confronted with inherently complex and multidimensional challenges, ranging from issues of data complexity to limited transparency. These conditions demand auditors to employ systematic, comprehensive, and technology-enabled approaches to ensure accountability, detect irregularities, and enhance the overall effectiveness of the audit process. In government construction projects, understanding the characteristics and challenges of construction data becomes crucial, fundamentally determine the effectiveness of technology-driven audit approaches. Construction project data are typically characterized by high volume, heterogeneous formats, and dynamic structure (Aouad et al., 1999). In the construction sector, data arise from heterogeneous sources such as design systems, project scheduling tools, Enterprise Resource Planning (ERP) applications, and financial records, leading to massive data volumes ranging from terabytes to petabytes (Bilal et al., 2016). The acquisition of construction data remains particularly challenging due to persistent issues such as manual data entry, dynamic and static occlusions, and the absence of uniform data standards (Han & Golparvar-Fard, 2015; Seo et al., 2015). In the construction industry, the operation of data platforms still relies on information exchange among different domains—such as structural, architectural, electrical, and mechanical—which often encounter interconnection challenges (Yousif et al., 2021).

Recent breakthroughs in artificial intelligence (AI) have begun to transform industrial practices worldwide. Nevertheless, the construction industry has been comparatively slow in adopting these technologies (Ghimire et al., 2024). Ghimire et al., (2024) highlights several challenges in the application of machine learning within the construction sector. A challenge occurs when owner organizations attempt to implement machine learning models for predicting construction project completion time based on available data, such as project value, delivery method, complexity, and material quantities. The key issue is the trade-off between predictive accuracy and generalizability - models with higher precision yield more accurate predictions but may lack broad applicability, while less precise models are more generalizable but sacrifice accuracy.

The challenges discussed above are predominantly related to the technical aspects of construction. Equally important, however, are the non-technical aspects—such as corruption and fraud in government construction projects—which also warrant careful consideration. Corruption has been identified as a major problem in construction projects (Zhai et al., 2021). Zarghami (2025) study indicates that the four elements of the fraud diamond theory can trigger corrupt behavior in construction projects. This finding highlights that fraudulent patterns present significant challenges for detection through conventional data analysis. Consequently, there is an increasing need for systems capable of identifying anomalies and detecting fraud patterns in government construction projects. In this context, leveraging advanced technological solutions, particularly BDA and GenAI, emerges as a strategic approach warranting serious consideration.

The purpose of this article is to examine the potential application of BDA and GenAI as transformative solutions for enhancing the effectiveness and efficiency of construction project audits, particularly in detecting anomalies and patterns of fraud. To the best of the author's knowledge, no prior study has specifically examined the linkage between the use of BDA and GenAI and the detection of anomalies and fraud in government construction projects. This study contributes to advancing the discourse by offering insights and recommendations for audit institutions to adopt an audit approach using BDA and GenAI that is adaptive to technological advancements and the evolving governance challenges of modern public construction projects.

Big Data Analytics and Generative Artificial Intelligence for Government Construction Audits: Opportunities for Detecting Anomalies and Fraud - SAI Indonesia

The Essence of BDA and GenAI in Government Construction Audits for Detecting Anomalies and Fraud Patterns

GenAI, capable of producing new and realistic data or content based on given inputs or existing knowledge, offers innovative solutions to challenges across various processes in the construction industry, including design, planning, procurement, inspection, and maintenance (Taiwo et al., 2025). Recent studies Alwashah et al., (2025) indicate that the construction sector is beginning to explore GenAI to address complex data management challenges and inefficiencies inherent in traditional workflows, particularly in design, planning, and project management. These studies conclude that GenAI technologies play a pivotal role in construction.

Considering this potential, the application of GenAI is not only relevant for enhancing efficiency and accuracy in technical construction processes but also offers strategic opportunities not only anomaly detection but also fraud prevention and identification in government construction projects. Fraud detection and prevention are critical in construction projects, with common U.S. industry frauds including billing schemes, corruption, cost substitution, and non-cash misappropriation (Ward, 2024). Traditional detection methods often fall short against increasingly sophisticated fraud. GenAI can provide visualizations and narratives from fraud data (Ward, 2024).

The study by Rosnidah et al., (2022) demonstrates that BDA substantially enhances auditing processes, as leveraging big data as supplementary audit evidence facilitates the identification of anomalies and the prediction of fraudulent activities. Data-driven approaches to detecting fraud in public procurement have received considerable scholarly attention Santos et al., (2025), encompassing techniques such as Machine Learning (ML) for cartel identification (Wallimann & Sticher, 2023) and advanced statistical methods for the detection of anomalous bidding behaviors (Maia et al., 2020). Santos et al., (2025) research highlights that the study of red flags for collusion detection is comparatively underexplored relative to other forms of fraud, and emphasizes the need for the development of robust, data-driven anti-fraud systems.

Best Practices in Utilizing BDA and GenAI in Construction and Audit

To the best of the author's knowledge, there has been no comprehensive and specific example demonstrating the successful use of BDA and GenAI for detecting anomalies and fraud in government construction projects by audit institutions. Nonetheless, several cases illustrate the use of BDA and GenAI in public construction management or in anomaly and fraud detection in general, although not specifically within government construction projects. In Indonesia, The Toll Road Regulatory Agency (BPJT) has partnered with researchers from Universitas Gadjah Mada (UGM) to apply AI in monitoring toll road conditions across Indonesia. This technological innovation enhances the maintenance of toll road infrastructure assets, as BPJT oversees approximately 2,300 kilometers of toll roads operated by 40 state-owned and private companies. The implementation of AI is anticipated to deliver real-time information on potential cracks or potholes, enabling timely and proactive maintenance actions. According to Munawar et al., (2022), the adoption of tools such as Computer-Aided Design (CAD) and Building Information Modeling (BIM) offers significant opportunities for researchers in the construction industry to enhance how infrastructure can be developed, monitored, and improved in the future. Big Data Engineering (BDE) demonstrates remarkable applications within construction (Munawar et al., 2022), having been employed alongside BIM to advance project management (Huang, 2021). BDE has also been utilized to optimize building design and performance monitoring (Loyola, 2018), project management, safety, energy management, decision-making frameworks for design, resource management (Ismail et al., 2018), quality control, waste management, and other areas (Wang et al., 2018). Furthermore, Zabala-Vargas et al., (2023) notes that emerging technologies—including big data, data science, and AI—have become viable alternatives throughout the project lifecycle. The most notable contributions of AI relate to project development forecasting, identification of critical factors, detailed risk assessment, planning optimization, task automation, and efficiency enhancement, thereby facilitating more informed management decision-making. Meanwhile, Rodríguez et al., (2022) evaluated the accuracy of eleven ML algorithms for detecting collusion using datasets from Brazil, Italy, Japan, Switzerland, and the United States. The findings suggest that ML holds significant promise for identifying collusive behavior. The algorithms are highly flexible, achieving reasonable detection rates even with limited information.

Big Data Analytics and Generative Artificial Intelligence for Government Construction Audits: Opportunities for Detecting Anomalies and Fraud - SAI Indonesia

According to Álvarez-Foronda et al., (2023), such tools not only advance fraud detection but also enable the evolution of audit processes, enhancing both their effectiveness and efficiency. These technologies facilitate near real-time automation of testing and risk identification, prompting a shift toward a continuous audit model as opposed to traditional static auditing approaches. Data analytics as an audit tool allows for reduced labor time and optimized allocation of effort across audit phases (efficiency), such as extending audit coverage and extrapolating findings to entire populations rather than relying on traditional sampling methods (effectiveness). The adoption of IT-enabled auditing techniques has been shown to improve overall audit efficiency and effectiveness. Furthermore, Ismail et al., (2024) emphasizes that data analytics in auditing has substantial potential to enhance audit quality, minimize errors, increase process transparency, and strengthen stakeholder credibility. The Audit Board of the Republic of Indonesia (BPK) has begun developing and implementing BDA through its BIDICS platform as part of the digitalization of the audit process. This platform is designed to collect, integrate, and analyze large and diverse datasets relevant to public sector audits, including both financial and non-financial data, while also providing analytical support for selected specialized audits. The adoption of BDA within BPK has significantly expanded the scope of audit testing and enhanced the depth of analytical insights.

Challenges in Utilizing BDA and GenAI in Government Construction Audits for Detecting Anomalies and Fraud Patterns

The application of BDA and GenAI in government construction audits presents several challenges. According to Ismail et al., (2024), the challenges associated with the use of data analytics in auditing include large data volumes, a lack of standardized frameworks, and negative perceptions. Meanwhile, research by Kokina et al., (2025) indicates that “simple AI” technologies, such as key data extraction from documents and optical character recognition, are widely employed in auditing, whereas more advanced “complex AI” tools are still under development. The study further reports that Robotic Process Automation (RPA) is commonly used to automate repetitive administrative tasks, but its application in audit-specific functions remains limited. Additionally, Kokina et al., (2025) identifies key barriers to AI adoption in auditing, including issues of transparency and explainability, algorithmic bias, data privacy, system resilience and reliability, auditors’ concerns over excessive reliance on AI, and the need for comprehensive AI guidelines.

This aligns with Ward (2024), which notes that the use of GenAI for fraud detection and prevention in construction faces several challenges, including data quality and availability. GenAI relies on large and diverse datasets to train and evaluate models, yet construction data are often scarce, incomplete, and/or inconsistent due to the heterogeneous nature of the industry. Moreover, construction data are frequently sensitive and confidential, and accessing or sharing such data may raise privacy and security concerns. Ward (2024) further highlights challenges related to model validity and reliability. GenAI models are often complex, making their outputs difficult to interpret and verify, which raises questions regarding the accuracy, reliability, and suitability of the models for fraud detection and prevention purposes. Finally, Ward (2024) emphasizes regulatory and ethical considerations. The deployment of GenAI can have legal and ethical implications, particularly when used to inform decisions affecting stakeholders’ rights and interests. Consequently, the application of GenAI for fraud detection and prevention in construction requires compliance with relevant laws and regulations.

Conclusion

The integration of BDA and GenAI into government construction auditing represents a paradigm shift from traditional audit practices toward an intelligent, data-driven, and adaptive audit model. This transformation enables auditors to extend their analytical scope from limited data samples to large-scale datasets, thereby enhancing the validity while minimizing the risk of interpretive bias. The adoption of BDA and GenAI not only improves audit efficiency and effectiveness but also reinforces public accountability through greater transparency, reliability of evidence, and objectivity in decision-making. These technologies facilitate the early and comprehensive detection of anomalies and fraudulent patterns within complex construction project data environments.

Despite their promising potential, the successful implementation of BDA and GenAI in the audit of public construction projects hinges on overcoming several critical challenges, data quality issues, limited technical capacity among auditors, insufficient data infrastructure, and the absence of regulatory frameworks. From an academic perspective, this article contributes to the conceptual advancement of BDA and GenAI utilization in government construction auditing. It also lays the groundwork for future research on broader examples of successful AI-based anomaly detection and the strengthening of public-sector internal control systems oriented toward fraud prevention, particularly in the management and oversight of government construction projects.

Big Data Analytics and Generative Artificial Intelligence for Government Construction Audits: Opportunities for Detecting Anomalies and Fraud - SAI Indonesia

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Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

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The Essence and Stages of the Strategic Management Process

Over the past 20–25 years, strategic management has been widely accepted as one of the methods for modernizing public policy. The success of steps taken by public institutions to align their operations with high standards and to respond appropriately to ongoing changes is closely related to how correctly strategic management is implemented.

Strategic management is defined as the art of formulating, implementing, and evaluating functional decisions that enable an organization to achieve its objectives. Although there are various definitions of strategic management, the following definitions are among the most understandable and widely accepted:

Strategic management is the process of defining an organization's goals by considering both internal and external environments, and making decisions to achieve those goals.

Strategic management is a continuous process of strategic analysis, strategy creation, implementation, and monitoring aimed at achieving competitive advantage.

The main objective of implementing strategic management in the public sector is to achieve better results in public services. In other words, the core goal in this sector is to create added value for citizens and society by improving the quality of public services, enhancing public welfare, and strengthening accountability and transparency.

Different sources classify the strategic management process in various ways. However, the most common classification groups this process into three main stages:

1. Strategy Formulation- This is the core part of the strategic management process, and it characterizes the consolidation of actions aimed at the development of the institution into a realistic and ambitious plan.

The strategic plan is based on assessing the institution's key operational needs and identifying the gaps or areas that require improvement. It requires defining clear steps, roles, responsibilities, and timelines. The strategy formulation process includes evaluating the current situation (using tools like SWOT analysis, PESTLE analysis, etc.), stakeholder expectations, and defining vision, mission, values, strategic issues, and priorities. Good strategic planning:

- Identifies steps to achieve goals, new opportunities, and ideas;
- Increases leadership commitment to achieving organizational objectives;
- Enables efficient use of resources, including cost savings;
- Creates a unified vision for the organization's future;
- Ensures effective management by enabling goal attainment.

During strategy formulation, four main questions must be answered:

- o What do we want to achieve? (Outcomes)
- o What will we do? (Outputs)
- o How will we do it? (Processes or activities)
- o What do we need? (Inputs or resources)

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

2. Strategy Implementation This stage involves carrying out the process, taking into account the organization's structure and resources. It is important to develop an operational plan that aligns well with the strategy and considers financial and human resources. Each operational plan serves as a tool to translate strategic intent into actionable steps. At this stage, risk management must also be carefully addressed.

3. Monitoring and Accountability of Strategy Implementation This is the next stage, involving periodic assessment of the effectiveness of actions and planning for the future based on lessons learned. It is very important to monitor the implementation of strategic and operational plans through monitoring frameworks, which should include indicators, baseline and target values. The framework should cover both quantitative and qualitative aspects in Strategic Management.

Six Fundamental Principles ensure that an organization can design and implement an effective strategic management process while staying true to its mandate and mission at every stage:

- Must be manageable;
- Must be inclusive;
- Must focus on outcomes;
- Must be exemplary;
- Leadership must be committed;
- Changes must be managed.

Key Requirements for Strategic Management Based on International Assessments

Various assessment tools (such as PEFA, SAI PMF, Public Sector Scorecards, etc.) define requirements for the strategic management framework. These requirements, when consolidated, lead to the conclusion that effective strategic management at the institutional level must take the following into account across different stages (Table 1).

Table 1. Key Strategic Management Requirements Based on Different Tools

Main requirements for stages
<i>Strategic Plan Development</i>
Does the Strategic Plan rely on an assessment of the institution's key operational aspects and identify gaps or areas requiring improvement?
Does the Strategic Plan include a results framework with a logical hierarchy of objectives? (e.g., outcomes, outputs, etc.)
Does the Strategic Plan contain measurable indicators to evaluate the achievement of strategic goals?
Is the Strategic Plan supported by an implementation matrix or similar document identifying risks to achieving objectives?
Are stakeholder expectations considered in the Strategic Plan?
Does the Strategic Plan include measures to strengthen the institutional environment?
Is there high-level ownership of the process (i.e., leadership involvement)?

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Are resource assessments (budget, human resources, etc.) conducted for the Strategic Plan period?
Does the current Strategic Plan take into account the outcomes of previous plans?
Is the Strategic Plan publicly disclosed?
Implementation of the Strategic Plan
Are clear activities, timelines, and responsibilities defined? (Primarily through Operational Plans)
Does the annual plan include budgeting and consideration of necessary resources? Are financial management, human resources, and IT infrastructure taken into account?
Is there a risk assessment for achieving the operational objectives?
Are measurable indicators identified, especially at the outputs level?
Is participation ensured across all levels of the institution?
Monitoring System (Framework) and Accountability
Does the institution assess and report on its operations and performance across all activity areas?
Is the monitoring system manageable? Does it include an adequate number of indicators?
Are performance indicators used to measure progress toward goals (outcomes)?
Are baseline indicators set at the beginning of the Strategic Plan, with targets defined for subsequent years and tracked during monitoring?
Is the progress of actual annual indicators compared with targets?
Are indicators defined and measured for each outcome and output?
Is there a defined frequency for monitoring and reporting?
Are public expectations tracked through feedback mechanisms?
Is an independent external evaluation conducted and publicly disclosed?

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Development of the Supreme Audit Institution's Key Strategic Document

The Strategic Plan of the Chamber of Accounts for 2021–2025, which outlines the Chamber's long-term development, reflects its vision, mission, core values, outcomes and outputs, and relevant activities. It was developed based on international expert evaluations and recommendations, progressive practices, the "Strategic Management Handbook for Supreme Audit Institutions," and the principles of INTOSAI P-12 (The Value and Benefits of SAIs – Making a Difference to the Lives of Citizens). The Strategic Plan serves as a roadmap for the Chamber of Accounts' operations from 2021 to 2025. It aims to strengthen institutional capacity and enhance the role of high-quality auditing in public financial management and oversight, through greater engagement with the parliament, government, and society.

The Strategic Plan Preparation Process, including the tools applied and the key steps taken, along with their characteristics, was reflected in the article "The Role of Strategic Development Plans in Strengthening the Activities of Supreme Audit Institutions. The Strategic Plan of the Chamber of Accounts for 2021–2025" published in Issue No. 1 (2021) of the official quarterly bulletin "State Audit". This article, however, focuses on the next stages of strategic management, particularly on monitoring.

Implementation of the Chamber of Accounts' Most Important Strategic Document

The Strategic Plan is characterized as a somewhat conceptual document. Its implementation mechanism is ensured through an Operational Plan.

To implement the Strategic Plan of the Chamber of Accounts for 2021–2025, an annual Operational Plan was developed, covering all outcomes and outputs. This plan includes measures aimed at addressing weak points and potential gaps across different areas of activity, and improving performance in various dimensions — institutional, organizational, and professional.

Outcomes are medium and long-term strategic changes in the organization's close external environment and among its stakeholders. The organization can significantly contribute to these changes (but cannot fully control them). As the final outcomes of its Strategic Plan, the Chamber of Accounts has defined:

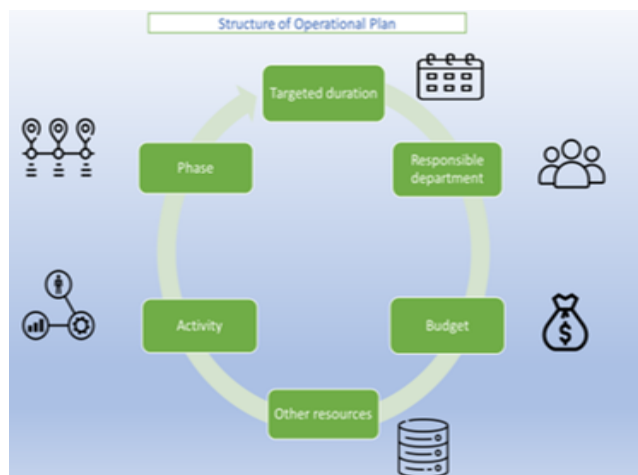
1. *Contributing to enhanced accountability of public finance and strengthened fiscal responsibility;*
2. *Strengthening trust in its activities.*

Outputs are results that are under the organization's control. As intermediate outcomes of its Strategic Plan, the Chamber of Accounts has defined:

- Expanding the scope of performance auditing,
- Improving the selection and coverage of financial and compliance audits,
- Enhancing the quality of audits.

Achieving intermediate outcomes depends on the organization's **capacity**, which consists of three distinct dimensions: institutional, organizational, and professional.

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan



The structure of Operational Plans may consist of various elements. While the addition or removal of elements depends on the discretion of the institution applying strategic management, the core components are reflected as follows.

At the heart of the Operational Plan lie the "activities". The most important requirement for this element is its capacity to contribute to the achievement of the goals set out in the Strategic Plan. Analyses show that one of the main shortcomings in many institutions' strategic plans is the inclusion of predominantly routine (day-to-day) activities.

Monitoring and Accountability of the Chamber of Accounts' Most Important Strategic Document (taking into account performance impact measurement indicators)



It should be noted that monitoring and accountability are sometimes treated as components of the overall strategy implementation process. Establishing a monitoring framework for outcomes and outputs during the preparation of the strategy allows for the methods of measuring outcomes to be defined in advance, and helps to specify the outcomes more precisely.

At the Chamber of Accounts, a system of indicators has been developed to monitor the implementation of the Strategic Plan. This system includes over 90 key performance indicators (KPIs). It sets the frequency of assessments and defines quantitative and qualitative targets to be achieved.

To ensure that the implementation of the planned activities is measurable, at the end of each year, actual implementation is assessed by comparing it against the planned indicators.

A dedicated section on the implementation of the Strategic Plan was included in the Annual Activity Reports of the Chamber of Accounts for 2021-2024, marking the first such practice in the country. In addition, for the first time in Azerbaijan, the reporting on the implementation of the Strategic Plan was also linked to budget indicators.

As seen in Table 2, the implementation of activities exceeded the level of budget execution.

Table 2 . Execution of the Operational Plan and the budget of Strategic Plan,%

	2022	2023	2024
<i>Operational Plan</i>	81,3%	91,7%	91,6
<i>Budget</i>	80,0%	83,3%	86

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Furthermore, the overall implementation status of the indicators within the Monitoring Framework remained at or above 80% during these years, which, being higher than the corresponding budget execution level, serves as an additional indicator of the effective implementation of the Strategic Plan.

The reporting practice of the Chamber of Accounts on its Strategic Plan has been recognized by international organizations (e.g., IDI) as one of the best in the field, and was recommended to other Supreme Audit Institutions (SAIs). The Chamber of Accounts has even been involved as an expert in projects aimed at establishing similar processes in the SAIs of other countries.

Table 3. Extract from the 2024 Implementation Status of the Strategic Plan Monitoring Framework

Indicator	Planned	Implementation	Status
<i>Share of revenues analyzed in the opinion compared to total state budget revenues</i>	96,0%	97,8%	✓
<i>Share of expenditures analyzed in the opinion compared to total state budget expenditures</i>	75,0%	85,5%	✓
<i>Consideration of the Chamber of Accounts' recommendations in the Cabinet of Ministers' Report</i>	Yes	Yes	✓
<i>Share of performance audits among total audits</i>	12,5%	13,0%	✓
<i>Publication rate of the Portfolio (Work Plan of the previous year)</i>	63%	64,3%	✓
<i>Implementation rate of the recommendations of Board decisions on oversight measures</i>	65%	70% (operative information)	✓
<i>Share of audits and other measures that underwent quality control out of total activities</i>	100%	98%	✓
<i>Chamber of Accounts' score on the Open Budget Index</i>	89	100	✓

As previously mentioned, this article focuses more on the next stages of strategic management, particularly on monitoring. In this regard, the identification of appropriate indicators for measuring progress toward objectives becomes especially important. The article also highlights the significance of key performance indicators (KPIs) in various activities and emphasizes the importance of tracking implementation status using these indicators. The goal is to support public institutions in implementing this process and to contribute to the improvement of the indicator systems in use.

The Chamber of Accounts applies outcome indicators to measure the impact of its work by utilizing strategic management principles in both its core function — public auditing — and other activities.

However, it should be noted that some indicators are not included in the Strategic Plan's Monitoring Framework, either because the Chamber of Accounts does not have direct control over the collection of relevant data or because such indicators cannot be planned in advance. For example: Recommendations with financial impact — such as recovery of public funds, cost savings, prevention of overspending, or increased public revenues; Recommendations with procedural or compliance effects (i.e., those without direct financial effect) — such as improved legal compliance or the adoption of new regulatory documents. Although these are among the main indicators of audit activity, they are not part of the Monitoring Framework of the Strategic Plan. Nevertheless, data on these indicators are included in the Annual Activity Reports.

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Thus, it can be concluded that not all good indicators can be applied for monitoring the implementation of strategic documents.

As mentioned, one of the most important aspects regarding the Monitoring Framework is the correct identification of indicators. Failure to define appropriate indicators may result in significant progress going unnoticed, even when the implementation rate of the Strategic Plan appears high.

Indicators must be directly linked to capacity, outputs, and outcomes. They can be expressed in quantitative or qualitative terms. Quantitative indicators are relatively easy to measure. Qualitative indicators, on the other hand, tend to be more descriptive in nature and often require additional criteria for measurement. A successful practice is to combine both types of indicators in the Monitoring Framework.

It should also be noted that including too many indicators in the Monitoring Framework can negatively impact the monitoring process (i.e., the system must remain manageable). In this regard, it is considered optimal to define 2-3 indicators for each outcome, and 1-2 (sometimes 3-4) indicators for each outputs. Additionally, indicators related to capacity may also be included in the relevant framework.

The inclusion of a large number of indicators in the Monitoring Framework by the Chamber of Accounts is due to various reasons. Broadly, this reflects the first-time application of a results-based framework, with plans to optimize the number of indicators in future strategic documents. It also includes the use of indicators that can measure not only outcomes and outputs but also capacity, and considers the Chamber's ability to collect relevant data within a short timeframe. For example, indicators such as: Number of audits, ratio of published audit reports to the total portfolio, number and implementation rate of recommendations issued, number of quality-controlled audit activities are all under the direct control of the institution.

At the same time, it is possible to classify indicators in the Monitoring Framework as "good" or "poor". The table below provides some examples in the context of training activities.

Table 4. Good and Poor Indicators (Using Training Activities as an Example)

Expected outcome of strategy	Poor indicator	Weakness	Good indicator	Advantage
<i>Competent staff in financial audit</i>	Number of staff who have received financial audit training	Unclear what kind of training is meant; lacks specificity	Number of staff certified with PESA in financial audit	Reflects the required competence, qualification, and experience; certification is mentioned
<i>Increase in participants of quality financial audit training</i>	Increase in the number of trainings	Vague — unclear what specific training is referred to	Ratio of staff completing PESA training to total staff in this area / Number of PESA-certified staff as a proportion of total staff in this area	

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

It should be noted that for institutions newly adopting strategic management, the use of poor indicators may be acceptable in early years, but should be replaced with better indicators over time.

Other Strategic Documents of the Chamber of Accounts (across various areas)

In recent years, the Chamber of Accounts has expanded its strategic management practices across different domains. The aim is to ensure that activities in all areas are structured and implemented in line with the institution's strategic goals for the medium term and are assessed based on performance indicators.

The Communication Strategy of the Chamber of Accounts

To improve communication activities and measure related efforts, the “Communication Strategy of the Chamber of Accounts of the Republic of Azerbaijan for 2024–2026” was approved, based on a results-based framework. The document was developed using a methodological framework provided by the relevant state authority, incorporating: Requirements of the IFPP (INTOSAI's Framework of Professional Pronouncements), relevant criteria from the SAI PMF assessment, and aligning with the Strategic Plan of the Chamber of Accounts for 2021–2025.

To assess the current situation, three tools were used:

1. SWOT analysis,
2. SAI PMF assessment,
3. Analysis of the existing legal framework.

Based on the findings, 5 SMART objectives were formulated to address the identified weaknesses and strengthen performance in this area. For each SMART objective, stakeholders and target audiences were identified separately, as well as communication tools and tailored key messages.

To achieve these measurable SMART objectives, a detailed action plan was developed. The plan includes: Multiple activities under each SMART objective, several indicators for each activity (see Table 5), ambitious targets for the medium term (i.e., increasing targets over the years). The action plan also outlines: Responsible parties, implementation timelines, frequency of monitoring and reporting. Moreover, the Communication Strategy includes a dedicated section on monitoring, reporting, and evaluation processes. This not only enhances discipline and accountability in implementation, but also supports the realization of a results-based framework.

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Table 5. Excerpt from the 2024 Implementation Status of the Communication Strategy

SMART goals	Actions	Key Implementation Indicators per Action	Planned	Implementation
To support strengthening public financial management by increasing the volume of information disclosed in opinions on budgets by 15% annually (compared to the baseline)	Dissemination of information to the public via the official website and media (excluding revised budgets)	Number of summaries published on the official website	5	6
		Number of speeches on opinions published on the official website	3	4
		Number of news published on the official website	10	15
		Total number of media publications on the topic	920	972
	Informing the Parliament and the Government on topic	Number of speeches by the leadership of the Chamber of Accounts in plenary and committee sessions	11	15
To enhance accountability and transparency in the use of funds by public sector institutions by increasing the disclosure of the audit portfolio by 3 percentage points annually (compared to the baseline)	Dissemination of information to the public via the official website and media	Ratio of audits published on the official website and in the State Audit Journal to the total number of activities, as a percentage (based on the work plan of the previous year)	63	64,3
		Number of semi-annual and annual reports published on the official website	2	2
		Number of summaries published on the official website	3	3
		Number of media publications covering the results and reports of the state audit	1500	2296
	Informing the Parliament and the Government on topic	Ratio of audit results submitted to the Milli Majlis (Parliament) to the total audit results	100%	100%
		Number of reports submitted to the Cabinet of Ministers	7	12*
		Number of Members of Parliament invited to the Board meetings of the Chamber of Accounts	2	3
To increase awareness of the Chamber of Accounts in the international SAI community by	Publication of information and articles in INTOSAI and its affiliated journals	Number of articles and information shared with journals	3	7
	Provision of information to the	Number of entries submitted to the Atlas (cumulative)	6	6

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

20% (compared to the baseline)	INTOSAI Atlas			
	Achieving an adequate score in the Open Budget Index	Score in the assessment	89	100
	Increasing meetings with missions and experts	Number of meetings related to public financial management	6	7
	Organizing international events on different audit topics (e.g., environment, public debt, etc.)	Number of events held	2	3
		Number of guests participating in the events	90	124
		Number of countries represented in the events	30	44
		Number of appearances by foreign SAI representatives on TV and social platforms	6	7
To increase the volume of information disclosed to the public about the role and activities of the Chamber of Accounts by 15% annually (compared to the baseline)	Increasing the amount of information disclosed to the media	Number of television interviews	2	13
		Number of in-depth interviews	2	3
		Number of press conferences and briefing held	1	1
		Number of training courses with sector journalists	4	4
		Ratio of responded information requests to total received requests	100%	100%
		Number of media publications on core and current activities	2500	3781
	Increasing the number of items published on the official website	Number of news published	78	112
		Number of views on the official website (cumulative)	644000	767613
	Expanding content on social media platforms	Number of social media (Facebook) posts	67	136
		Number of reposts	2831	4227
		Number of likes	39750	62079
		Number of views	128529	271622
	Enhancing communication with citizens	Number of citizen suggestions taken into account in audit activities	1	1
To increase the scores of employee satisfaction indicators below 70% to at least 75%	Conducting an employee satisfaction survey	Average score for survey questions with low ratings	70	73
		Number of survey participants	96	100

Implementation of Strategic Management Principles in the Public Sector: the Experience of the Chamber of Accounts of the Republic of Azerbaijan (based on main strategy and relevant documents in various areas) Fraud - SAI Azerbaijan

Training Strategy of Chamber of Accounts

The outcome of the Training Strategy is defined as supporting the improvement of the quality of activities carried out across functional areas through training, by enhancing the potential of human capital with strong practical and theoretical knowledge.

To develop the Training Strategy, three tools were used to assess the current situation: SWOT analysis, SAI PMF assessment, and Analysis of stakeholder expectations. Based on these analyses, three strategic objectives were defined to eliminate the identified weaknesses and to strengthen efforts in this area.

In the Monitoring Framework, efforts have been made to ensure that the targets set for the medium term under the indicators are ambitious (see Table 6).

Table 6. Excerpt from the 2024 Implementation Status of the Monitoring Framework of the Training Strategy


Indicator	Planned	Implementation	Status
Ratio of administrative staff who attended at least one training to the total number of administrative staff, %	81,3%	86,0%	✓
Number of international certifications obtained during the year in finance, accounting, and audit	9	11	✓
Coverage rate of the target group through trainings, %	80%	82%	✓
Training satisfaction rate, %	80%	Over 90%	✓
Average post-training score in long-term internal training programs (based on assessment), %	80%	70-80%	⚠
Number of international certifications obtained during the year in IT field	2	2	✓
Cumulative number of auditors with international certification in audit and accounting	14	16	✓
%of employees who successfully completed paid certified trainings	100%	100%	✓

Human Resources Strategy of the Chamber of Accounts

The main objective of the strategy is to improve the human resources system by developing the staffing potential and ensuring the recruitment of employees with the necessary knowledge and skills, in order to effectively support the operations of the Chamber of Accounts.

To develop the Human Resources Strategy, two tools were used to assess the current situation: SWOT analysis and SAI PMF assessment. Based on the analysis, outputs were identified to address the detected weaknesses and strengthen activities in this area. In the Monitoring Framework, efforts have been made to ensure that the targets set for the medium term under the indicators are ambitious (see Table 7).

Table 7. Excerpt from the 2024 Implementation Status of the Monitoring Framework of the Relevant Strategy

Indicator	Planned	Implementation	Status
Number of vacant administrative positions submitted to the State Examination Center for announcement	39	46	✓
Staffing level of established positions at the Chamber of Accounts, % 	89%	85%	⚠
Staffing level of administrative positions at the Chamber of Accounts, %	80%	80%	✓
Number of positions formed based on the application of the competency model	43	54	✓

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As seen from the tables, the article presents only brief excerpts from the relevant Monitoring Frameworks, with a focus on indicators that may be applicable in other institutions as well. The Monitoring Frameworks and the indicators used therein enable the measurement of success in the respective areas and support the decision-making process.

The Chamber of Accounts prepares a Risk Register, which reflects the probability, impact, and mitigation measures of risks related to the outcomes and outputs of its main and sectoral strategic documents. This plays an essential role in the implementation of strategic management (see Table 8).

Table 8. Excerpt from the Risk Register Document

Risk	Probability	Impact	Risk index	Tolerance	Response	Type of control activity	Planned actions
Low implementation level of procedural recommendations in Board decisions	3	4	12	Unacceptable	Mitigation (Risk reduction)	Corrective	Ensuring measurability of procedural provisions in Board decisions; special monitoring by audit departments of relevant provisions; conducting monitoring activities
Misunderstanding or misinterpretation of reports, or misperception of the Chamber's role in the public financial management system	2	4	8	Unacceptable	Mitigation (Risk reduction)	Preventive	Enhancing the readability and simplifying the structure of summaries and reports; including explanations of certain terms in the Annual Performance Report; proactive media management related to the Chamber's activities

Through this framework, the Chamber of Accounts maintains a risk register, regularly monitors the identified risks, and implements measures aimed at reducing risk levels. Based on the assessments conducted, internal monitoring reports are prepared and shared with all staff, ensuring that the results are integrated into the decision-making process.

Consequently, it can be concluded that in the implementation of principles aimed at creating value for society and enhancing the quality of public sector governance, the role of strategic management is once again emphasized. The Chamber of Accounts intends to continue its efforts to share its exemplary practices with other institutions in the relevant sector to promote the wider adoption of strategic management approaches.

Sources used in the article:

Paul Joyce – Strategic Management in the Public Sector;

John M. Bryson – Strategic Planning for Public and Nonprofit Organizations;

Strategic Management Handbook for Supreme Audit Institutions;

SAI PMF (Supreme Audit Institutions Performance Measurement Framework);

INTOSAI P-12 (The Value and Benefits of Supreme Audit Institutions – Making a Difference to the Lives of Citizens).

Tentative Schedule of Asosai Capacity Development Activities

Tentative schedule of ASOSAI capacity development activities for 2025
(As of the end of October 2025)

Year	Date	Event	Venue
2025	December 1-5	Audit Review Meeting of ASOSAI Capacity Development Program 2024-2025 on “Dealing with Fraud and Corruption in Auditing”	Jakarta, Indonesia
2026	TBD	Instructors’ Design Meeting for ASOSAI Capacity Development Program 2026 (Workshop) on “Performance Audit on Public Works Projects”	Tokyo, Japan
	TBD	ASOSAI Capacity Development Program 2026 (Workshop) on “Performance Audit on Public Works Projects”	Malaysia
	TBD	ASOSAI Seminar for 2026 (Theme: System of Audit Quality Management))	Türkiye

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