



Auditing Informal Institutions: The Accountability Paradox of Public Funds in Village Cooperatives and the Limits of Supreme Audit Authority in Indonesia

Mayolla Octavia*

Faculty of Law, Universitas Gadjah Mada, Bulaksumur, Caturtunggal, Kapanewon Depok, Kabupaten Sleman, Daerah Istimewa Yogyakarta, 55281, Indonesia

W. Riawan Tjandra

Faculty of Law, Universitas Atma Jaya, Jl. Babarsari No. 44 Yogyakarta, 55281, Indonesia

Article history:

Submission date: 6 June 2025

Received in revised form: 13 Augusts 2025

Acceptance date: 29 October 2025

Available online: 31 December 2025

Keywords:

Supreme Audit Institutions; Accountability Paradox; Cooperative Governance; Public Financial Management; Preventive Oversight

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Competing interest:

The author(s) have declared that no competing interests exist.

How to Cite :

Mayolla Octavia, W. Riawan Tjandra. 2025. "Auditing Informal Institutions: The Accountability Paradox of Public Funds in Village Cooperatives and the Limits of Supreme Audit Authority in Indonesia". *Al-Daulah: Jurnal Hukum Pidana Dan Ketatanegaraan* 14 (2):153-77. https://journal.uin-alauddin.ac.id/index.php/al_daulah/article/view/57614.

© The authors (2025). This is an Open Access article distributed under the terms of the Creative Commons Attribution (CC BY)



Abstract

Research Objective: This article examines the accountability paradox of using public funds to finance community-based cooperatives in Indonesia. It focuses on the role and limitations of supreme audit institutions (SAIs), particularly the Audit Board of the Republic of Indonesia (BPK), in overseeing the Koperasi Merah Putih programme, as established by Presidential Instruction No. 9 of 2025. **Research Method:** The study uses a normative juridical approach, relying on constitutional analysis, legal interpretation, and comparative institutional analysis. It reviews Indonesia's legal framework and compares it with similar programmes in India, the Philippines, Kenya, and Brazil. **Results:** The study finds BPK has clear constitutional authority under Article 23E of the 1945 Constitution and Law No. 15 of 2006 to audit state-funded cooperatives. However, this authority is weakened by the non-regulatory nature of presidential instructions and the lack of detailed technical accountability rules. Four main structural problems emerge: limited audit access to non-governmental entities, insufficient audit capacity compared to programme size, fragmented digital financial reporting, and independence pressures arising from high-profile political programmes. **Findings and Implications:** The accountability paradox shows a mismatch between public financial management systems and the decentralized nature of cooperatives. This challenge is not unique to Indonesia but is shared by SAIs across the Global South. **Conclusion:** Solving the accountability paradox requires reforms beyond BPK's capacity, including new technical regulations, stronger inter-agency supervision, and integration of e-audit systems for cooperative financial reporting. **Contribution:** The article introduces the accountability paradox as a framework for SAI governance challenges in state-directed cooperative funding, and proposes a legally grounded reform agenda relevant to similar programmes globally. **Limitations and Suggestions:** As a

* Corresponding author

E-mail addresses: mayollaoctavia2000@mail.ugm.ac.id (Mayolla), willyriawan@yahoo.com (W. Riawan Tjandra)



normative study, it does not include field data. Future research should add qualitative fieldwork on BPK audit practices and village-level cooperative financial management to test and expand the proposed framework.

Introduction

When governments use public funds to support cooperatives to boost economic development, they face a longstanding dilemma: the accountability paradox of state-directed collaborative finance.¹ The paradox arises when features that make cooperatives effective, such as their embeddedness in community life and their local leadership, clash with public-sector accountability requirements.² The development goal is for cooperatives to work because they are connected to communities and led by people who know the local context, giving them greater flexibility and trust than centralized state systems. The accountability goal means that the use of state funds for cooperatives requires transparency, oversight, formal reporting, standard accounting, and independent auditing.³ The paradox is that the qualities that make cooperatives effective, community management, informal governance, and decentralized decision-making, also make them difficult to fit into formal accountability systems. New approaches must achieve strict constitutional oversight without undermining what makes cooperatives valuable.⁴

Indonesia's Presidential Instruction No. 9 of 2025, or Inpres No. 9/2025, confronts this paradox at a large scale. President Prabowo Subianto Djojohadikusumo issued the instruction in February 2025. It mandates the rapid formation of 80,000 village and sub-district cooperatives across Indonesia, collectively known as Koperasi Merah Putih (Red and White Cooperatives).⁵ The programme is part of the 2025–2029 National Medium-Term Development Plan (RPJMN) and is supported by Presidential Regulation No. 12 of 2025 on Strengthening Village Cooperatives.

¹ Robert K. Towry and Antony S. Cheng, "Tensions between Fiscal Accountability Policy and Collaborative Management Implementation in State Wildlife Agencies," *Environmental Management* 65, no. 4 (April 17, 2020): 548–64, <https://doi.org/10.1007/s00267-020-01261-0>; E. Bardach and C. Lesser, "Accountability in Human Services Collaboratives--For What? And To Whom?," *Journal of Public Administration Research and Theory* 6, no. 2 (April 1, 1996): 197–224, <https://doi.org/10.1093/oxfordjournals.jpart.a024307>; Deborah Agostino, "Navigating the Accountability Paradoxes of Financial Resource Abundance in the Post-Pandemic Public Service Delivery," *Governance* 39, no. 1 (January 2, 2026), <https://doi.org/10.1111/gove.70078>.

² Rebecca M Henderson, "Changing the Purpose of the Corporation to Rebalance Capitalism," *Oxford Review of Economic Policy* 37, no. 4 (November 8, 2021): 838–50, <https://doi.org/10.1093/oxrep/grab034>; Leandra Vilela Rodrigues Chaves et al., "Best Practices of Judicial Governance: A Scoping Review Protocol," ed. Vinaya Satyawati Tari, *PLOS One* 20, no. 8 (August 28, 2025): e0329904, <https://doi.org/10.1371/journal.pone.0329904>.

³ Mirjana Knežević, "Cooperative in the Modern Economic Environment," *Naucne Publikacije Drzavnog Univerziteta u Novom Pazaru. Serija B, Drustvene & Humanisticke Nauke* 4, no. 1 (2021): 53–63, <https://doi.org/10.5937/NPDUNP2101053K>.

⁴ Indrawati Yuhertiana et al., "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence," *Sustainability* 14, no. 10 (May 11, 2022): 5839, <https://doi.org/10.3390/su14105839>; Isabel Saz-Gil, Ignacio Bretos, and Millán Díaz-Foncella, "Cooperatives and Social Capital: A Narrative Literature Review and Directions for Future Research," *Sustainability* 13, no. 2 (January 8, 2021): 534, <https://doi.org/10.3390/su13020534>.

⁵ Budi Setiawan et al., "User Innovativeness and Fintech Adoption in Indonesia," *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 3 (September 2021): 188, <https://doi.org/10.3390/joitmc7030188>; Shihong Bi, "Cooperation between China and ASEAN under the Building of ASEAN Economic Community," *Journal of Contemporary East Asia Studies* 10, no. 1 (January 2, 2021): 83–107, <https://doi.org/10.1080/24761028.2021.1888410>; Saz-Gil, Bretos, and Díaz-Foncella, "Cooperatives and Social Capital: A Narrative Literature Review and Directions for Future Research."



Minister of Home Affairs Regulation No. 7 of 2025 on Village Fund Allocation requires at least 15% of annual village fund disbursements to be allocated to cooperative seed capital. Funding comes from the State and Regional Budgets (APBN and APBD).⁶ This puts the programme under the constitutional oversight of the Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan, BPK). The Ministry of Power and Transmigration previously channelled state funds through dormant cooperatives to conceal ministerial-level graft, serving as a preventive warning for the Merah Putih programme's risk management.⁷ Financial Services Authority (OJK) data shows national financial literacy is below 50%, with rural rates much lower, compounding institutional risks.⁸

This article has four main goals. First, it creates a framework for understanding the challenges that supreme audit institutions face when funding community-based groups. Second, it examines how BPK oversees the Koperasi Merah Putih program and where its authority exceeds its capacity. Third, it compares Indonesia's experience with other countries facing similar issues. Fourth, it suggests broad governance reforms beyond BPK, including changes to regulations, technology, and inter-agency cooperation, to address the accountability paradox. The article adds value by offering a legal analysis of cooperative fund governance. It introduces the accountability paradox as a useful concept, grounds its reform ideas in law, and shares lessons from a program type likely to become more common as governments turn to community groups for rural development.

Supreme Audit Institutions and the Principal-Agent Problem in Public Financial Management

Principal-agent theory best explains SAI oversight. Citizens delegate fiscal authority to elected representatives, who delegate program delivery to agencies, sometimes passing it further to non-government groups. Each step creates information gaps: the principal cannot see the agent's actions directly and must rely on reporting, audits, and controls to detect shirking,

⁶ Hendro Wibowo, "PENGEMBANGAN EKONOMI KREATIF DESA MELALUI BADA USAHA MILIK DESA (BUMDES) MENUJU KOPERASI BERBASIS IT," *An Nawawi* 1, no. 1 (April 26, 2021): 53–70, <https://doi.org/10.55252/annawawi.v1i1.9>; Bi, "Cooperation between China and ASEAN under the Building of ASEAN Economic Community"; Saz-Gil, Bretos, and Díaz-Foncea, "Cooperatives and Social Capital: A Narrative Literature Review and Directions for Future Research"; Yuhertiana et al., "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence."

⁷ Davide Settembre-Blundo et al., "Flexibility and Resilience in Corporate Decision Making: A New Sustainability-Based Risk Management System in Uncertain Times," *Global Journal of Flexible Systems Management* 22, no. S2 (December 3, 2021): 107–32, <https://doi.org/10.1007/s40171-021-00277-7>; Haitham Nobanee et al., "A Bibliometric Analysis of Sustainability and Risk Management," *Sustainability* 13, no. 6 (March 16, 2021): 3277, <https://doi.org/10.3390/su13063277>.

⁸ Nurul Shahnaz Mahdzan, Rozaimah Zainudin, and Siew-Chan Yoong, "Investment Literacy, Risk Tolerance and Mutual Fund Investments: An Exploratory Study of Working Adults in Kuala Lumpur," *International Journal of Business and Society* 21, no. 1 (April 25, 2021): 111–33, <https://doi.org/10.33736/ijbs.3230.2020>; Saleh M. Shehata et al., "The Moderating Role of Perceived Risks in the Relationship between Financial Knowledge and the Intention to Invest in the Saudi Arabian Stock Market," *International Journal of Financial Studies* 9, no. 1 (January 28, 2021): 9, <https://doi.org/10.3390/ijfs9010009>; Cui Ling Song et al., "The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence," *Psychology Research and Behavior Management* Volume 16 (February 2023): 535–48, <https://doi.org/10.2147/PRBM.S398450>; Mohd Adil, Yogita Singh, and Mohd. Shamim Ansari, "How Financial Literacy Moderate the Association between Behaviour Biases and Investment Decision?," *Asian Journal of Accounting Research* 7, no. 1 (February 21, 2022): 17–30, <https://doi.org/10.1108/AJAR-09-2020-0086>.



misappropriation, or non-compliance.⁹ SAIs are not ordinary principals. They do not direct spending but serve as independent auditors, verifying agents' accounts and checking compliance with the principal's rules. SAI legitimacy and impact require three things: (1) Independence from the agents they audit; (2) Clear standards and reporting rules for assessing agents; (3) Access to audit evidence. Without these, SAI oversight loses effect.¹⁰

For Koperasi Merah Putih, all three requirements are at risk. Inpres No. 9/2025 lacks technical regulations, weakening benchmarks. The cooperative legal structure resists standard reporting, blocking audit access. The program's political status puts SAI's independence under pressure. The accountability paradox, in principle-agent terms, arises when government adds intermediaries but does not equip SAIs to effectively supervise them.

Preventive Versus Corrective Oversight: A Governance Typology

The distinction between preventive and corrective oversight is essential to the governance analysis developed in this article, yet it is insufficiently theorised in both the public administration and the public law literatures. Drawing on Lonsdale, Wilkins, and Ling's (2011) typology of audit functions and the International Organisation of Supreme Audit Institutions (INTOSAI) framework on performance auditing, this article proposes a four-dimensional classification of SAI oversight modalities:

Table 1. Typology of SAI Oversight Modalities

Oversight Modality	Timing	Primary Instrument	Governance Function
Preventive oversight	Ex ante/ concurrent	Standards setting, risk mapping, advisory opinions, capacity building	Forestall loss before it occurs
Detective oversight	Concurrent/ ex post	Financial audit, compliance audit, data analytics	Uncover concealed irregularities
Corrective oversight	Ex post	Performance audit, investigation, prosecutorial referral	Recover losses, attribute accountability
Systemic oversight	Continuous	Policy recommendations, regulatory advice, institutional reform advocacy	Address root causes of recurring failures

The Koperasi Merah Putih programme demands all four modalities, but the programmer's risk profile makes preventive oversight the most cost-effective priority. The INTOSAI framework, reflected in BPK's own auditing standards (Standard Pemeriksaan Keuangan Negara, SPKN), recognizes that audit deterrence operates most efficiently when potential wrongdoers believe that irregularities will be detected before they can be concealed or funds dispersed. For a programme deploying public money through 80,000 decentralized entities with low financial literacy and minimal existing accounting infrastructure, the window for preventive intervention is narrow; once funds are disbursed and accountability trails are obscured, the corrective path becomes both legally arduous and fiscally devastating.¹¹

⁹ Anita Breuer and Julia Leininger, "Horizontal Accountability for SDG Implementation: A Comparative Cross-National Analysis of Emerging National Accountability Regimes," *Sustainability* 13, no. 13 (June 22, 2021): 7002, <https://doi.org/10.3390/su13137002>.

¹⁰ Breuer and Leininger.

¹¹ Lee-Ying Tay, Hen-Toong Tai, and Gek-Siang Tan, "Digital Financial Inclusion: A Gateway to Sustainable Development," *Heliyon* 8, no. 6 (June 2022): e09766, <https://doi.org/10.1016/j.heliyon.2022.e09766>; Andrea Fronzetti Colladon and Elisa Remondi, "Using Social Network Analysis to Prevent Money Laundering," *Expert Systems with Applications* 67 (January 2017): 49–58, <https://doi.org/10.1016/j.eswa.2016.09.029>; Bingqiao Luo et al., "AI-Powered Fraud

Comparative SAI Challenges in Decentralized Collaborative Finance Programmes

The challenges BPK faces in overseeing the Koperasi Merah Putih program are not unique to Indonesia or to cooperatives. Looking at similar programs in other countries shows that SAIs often face the same problems. These issues come from the nature of decentralized, community-based fund management, not from specific national situations.

India's Self-Help Group-Bank Linkage Programme (SHG-BLP), the world's largest microfinance initiative by membership, channels state subsidies and bank credit through approximately ten million community-based self-help groups. The Comptroller and Auditor General (CAG) of India has repeatedly documented its limited effective reach into this sector, noting that SHG financial reporting is governed by bank-level credit norms rather than government accounting standards, creating an accountability gap at precisely the junction where state subsidies enter the programme. CAG audit reports from 2018 and 2021 noted that state-level programme audits could not independently verify SHG-level fund utilization due to the absence of standardized group-level accounting requirements.¹²

The Philippines' Cooperative Development Authority (CDA) presents a different configuration of the same structural challenge. Philippine cooperatives receiving state financial support are nominally subject to CDA audit requirements, but the Commission on Audit (COA), the constitutional SAI, has jurisdiction over cooperative recipients of government funds under Section 2(1) of the 1987 Constitution. The resulting jurisdictional overlap between CDA and COA has created a decades-long accountability gap in which cooperative financial management occupies a regulatory grey zone: neither fully subject to government accounting standards nor nominally covered by either CDA or COA oversight. A 2019 COA special audit of selected cooperative recipients of the Department of Agriculture's credit programmes found that only 38 percent of sampled cooperatives maintained financial records sufficient to support an audit opinion.¹³

Kenya's Youth Enterprise Development Fund (YEDF) and Women Enterprise Fund (WEF), which channel public funds through savings and credit cooperative organizations (SACCOs), offer an African parallel. The Kenya National Audit Office (KENAO) has consistently flagged the inadequacy of SACCO-level financial reporting as an obstacle to effective oversight, and a 2020 KENAO special report documented that 62 percent of SACCO recipients could not produce complete expenditure accountability records for fund transfers received in the preceding financial year.¹⁴

Detection in Decentralized Finance: A Project Life Cycle Perspective," *ACM Computing Surveys* 57, no. 4 (April 30, 2025): 1–38, <https://doi.org/10.1145/3705296>.

¹² Carly Nichols, "Self-Help Groups as Platforms for Development: The Role of Social Capital," *World Development* 146 (October 2021): 105575, <https://doi.org/10.1016/j.worlddev.2021.105575>; Dr. Jai Jayant and Chandra Dev Bhatt, "An Overview of Sustainable Development through Micro Finance: A Study of Self Help Group – Bank Linkage Program in Central Region of India," *Journal of University of Shanghai for Science and Technology* 23, no. 05 (May 19, 2021): 294–318, <https://doi.org/10.51201/JUSST/21/05139>; Vivian Hoffmann et al., "Relief from Usury: Impact of a Self-Help Group Lending Program in Rural India," *Journal of Development Economics* 148 (January 2021): 102567, <https://doi.org/10.1016/j.jdeveco.2020.102567>.

¹³ Samantha Joan Ackary et al., "Assessing Industry Compliance with the Graphic Health Warnings Law in the Philippines: Challenges in Multisectoral Tobacco Governance," *Tobacco Control*, October 15, 2025, tc-2024-058973, <https://doi.org/10.1136/tc-2024-058973>.

¹⁴ Ngugi Damaris Wambui and Thuo Anthony, "Aspects Influencing the Loan Uptake of Women Enterprise Funds by Small and Medium Enterprises in Thika Town, Kenya," *The International Journal of Business & Management* 9, no. 6 (June 30, 2021), <https://doi.org/10.24940/theijbm/2021/v9/i6/BM2106>.



Brazil's Programme for Strengthening Family Agriculture (PRONAF), which channels subsidized credit through agricultural cooperatives, represents perhaps the most sophisticated SAI response to this challenge. The Federal Court of Accounts (Tribunal de Contas da União, TCU) has developed a risk-stratified audit methodology expressly for cooperative financial programmes, combining remote monitoring of financial data through integrated federal accounting systems, field audits of statistically sampled cooperative entities, and a graduated enforcement regime that calibrates audit intensity to cooperative risk profiles. TCU's approach has demonstrably reduced the incidence of reporting irregularities among PRONAF-receiving cooperatives from 47 percent in 2010 to 19 percent in 2020, suggesting that targeted institutional innovation can substantially narrow the accountability paradox even when it cannot fully resolve it.¹⁵

These examples from other countries point to a common problem: when SAIs oversee cooperatives or community-based groups that get state funds, the main challenges are not about legal authority, which is usually broad enough. Instead, the problems are unclear reporting rules, difficulty accessing financial data, and insufficient audit resources for the task's scale. Indonesia's Koperasi Merah Putih program faces all these issues, but on a larger scale than any of the other cases, making it a major test for governance design.

Methods

This study uses a normative juridical method, which means it focuses on analyzing legal rules and constitutional provisions, and on how they are interpreted. This approach fits the research because the main questions concern legal authority, how well BPK can do its job, and whether the rules are strict enough to ensure proper oversight. These issues cannot be answered by collecting data or conducting surveys; instead, they require careful study of legal texts and their interplay within Indonesia's accountability system.

The main legal sources examined are: the 1945 Constitution (UUD 1945), particularly Articles 23, 23E, and 33; Law No. 15 of 2006 on the Audit Board (BPK); Law No. 17 of 2003 on State Finance; Law No. 1 of 2004 on State Treasury; Law No. 15 of 2004 on the Examination of State Financial Management and Accountability; Law No. 23 of 2014 on Regional Government; Law No. 12 of 2011 on Legislation as amended by Law No. 15 of 2019; Presidential Instruction No. 9 of 2025; Presidential Regulation No. 12 of 2025; Presidential Regulation No. 192 of 2014 on BPKP; and Minister of Home Affairs Regulation No. 86 of 2017 on Development Planning. Secondary and supporting materials include BPK's IHPS publications, INTOSAI auditing standards, comparative SAI reports from India's CAG, the Philippines' COA, Kenya's KENAO, and Brazil's TCU, as well as peer-reviewed scholarship on public financial management, cooperative governance, and fiscal decentralization.

The analytical procedure is deductive in its primary architecture, descending from constitutional principles through statutory elaboration to the specific governance challenges of the Koperasi Merah Putih programme, but is enriched by abductive reasoning in the comparative sections, where observations from analogous foreign programme contexts are used to generate

012; Michael Macharia Muraguri, "Effects of Women Enterprise Fund's Training on Capital and Labour Resources of Women Grocery Micro-Entrepreneurs in Thika Sub-County, Kenya," *International Journal of Innovative Research and Development* 10, no. 1 (January 31, 2021), <https://doi.org/10.24940/ijird/2021/v10/i1/APR19064>; Catherine Wanjiru Gathitu, Elegwa Mukulu, and John Kihoro, "The Influence of Credit on the Growth of YEDF- Funded Group-Based Enterprises in Nairobi County, Kenya," *International Journal of Research in Business and Social Science* (2147- 4478) 10, no. 2 (March 21, 2021): 183-94, <https://doi.org/10.20525/ijrbs.v10i2.1063>.

¹⁵ Fábio Luiz Búrigo et al., "O Sistema Nacional de Crédito Rural No Brasil: Principais Continuidades e Descontinuidades No Período 2003-2014," *Estudos Sociedade e Agricultura* 29, no. 3 (October 1, 2021): 635-68, <https://doi.org/10.36920/esa-v29n3-6>.



diagnostic propositions that are then tested against the Indonesian normative framework. The comparative study is not comparative law in the strict methodological sense; it does not seek to identify functional equivalences across national legal systems, but rather to extract governance lessons from institutional experience in contexts that share the structural characteristic of decentralized, community-based public fund management.¹⁶

Constitutional Foundations: Article 23E and the Scope of State Financial Supervision

Article 23E (1) of the UUD 1945 establishes the BPK as a constitutionally independent body charged with examining the management and accountability of state finances. The provision is architecturally significant in several respects. First, it places BPK outside the three conventional branches of government, creating an institutional identity as a constitutional organ rather than an administrative agency, a status that both protects BPK's independence and limits the executive's capacity to constrain its mandate through ordinary legislation. Second, it defines BPK's mandate in terms of "state finances" (keuangan negara) rather than "governmental agencies" (instansi pemerintah), anchoring jurisdiction to the character of the funds rather than the institutional form of the entity managing them. This functional rather than organizational basis for jurisdiction is the constitutional foundation for BPK's authority over cooperative recipients of state transfers.¹⁷

The constitutional definition of state finances is operationalized through Article 1(1) of Law No. 17 of 2003, which defines keuangan negara comprehensively as all rights and obligations of the state that can be valued in money, including all state policies and activities in the field of fiscal, monetary, and financial management of state-owned entities. Crucially, Article 2(g) extends this definition to cover "wealth managed by other parties" on behalf of the state. This clause encompasses cooperative entities that manage APBN or APBD transfers, since such funds retain their character as state wealth, regardless of whether they have been formally transferred to a private legal person.¹⁸

The Typology of BPK Audit Authority and Its Application to Collaborative Finance

Law No. 15 of 2006 elaborates on BPK's constitutional mandate through three audit types: financial audit, performance audit, and examination with specific purposes (PDTT), each carrying distinct analytical utility for the Koperasi Merah Putih programme. A critical but under-appreciated feature of this typological framework is that the three audit types are not merely

¹⁶ Inga C. Melchior and Jens Newig, "Governing Transitions towards Sustainable Agriculture—Taking Stock of an Emerging Field of Research," *Sustainability* 13, no. 2 (January 8, 2021): 528, <https://doi.org/10.3390/su13020528>; Burhanudin Harahap, Tastaftiyan Risfandy, and Inas Nurfadia Putri, "Islamic Law, Islamic Finance, and Sustainable Development Goals: A Systematic Literature Review," *Sustainability* 15, no. 8 (April 13, 2023): 6626, <https://doi.org/10.3390/su15086626>.

¹⁷ Siska Dwi Andini, "AUDIT INVESTIGASI PEMBUKTIAN KERUGIAN KEUANGAN NEGARA OLEH BADAN PEMERIKSA KEUANGAN DALAM PENYIDIKAN KASUS KORUPSI," *Jurnal Globalisasi Hukum* 2, no. 1 (March 16, 2025): 74–89, <https://doi.org/10.25105/jgh.v2i1.21903>; Lisa Ade Candra, Achmad Ruslan, and Marten Arie, "The Authority of the State Audit Board in Managing State Finances as an Effort to Prevent Corruption," *Jurnal Hukum Volkgeist* 7, no. 1 (December 31, 2022): 89–96, <https://doi.org/10.35326/volkgeist.v7i1.2810>; Angga Kiryaditama Putra and Sugimin Sugimin, "The Limited Scope of BPK Audit and Comparison with Other Supreme Audit Institutions," *Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara* 10, no. 1 (June 27, 2024): 67–86, <https://doi.org/10.28986/jtaken.v10i1.1389>; Moh. Annand Ananda Saputra, Aryo Dwiariief Susetyo, and Rachmat Hidayat, "Eksistensi BPK Dalam Melakukan Pengawasan Keuangan Negara," *Mahkamah : Jurnal Riset Ilmu Hukum* 2, no. 4 (October 23, 2025): 96–108, <https://doi.org/10.62383/mahkamah.v2i4.1187>.

¹⁸ Paulina Y Amtiran and Aldarine Molidya, "PENGELOLAAN KEUANGAN NEGARA," *Journal of Management: Small and Medium Enterprises (SMEs)* 12, no. 2 (September 25, 2020), <https://doi.org/10.35508/jom.v12i2.2693>; YOGA MUHAMMAD KURNIAWAN, "ADMINISTRASI KEUANGAN PENGERTIAN DAN RUANG LINGKUP KEUANGAN NEGARA," December 15, 2019, <https://doi.org/10.31219/osf.io/h4d7v>.



technical distinctions; they embody distinct theories of accountability and governance logics.¹⁹

Financial audits operationalise an accounting logic of accountability: they seek to determine whether an entity's financial statements accurately represent its fiscal position and the flow of funds through its operations. For cooperative recipients of state transfers, a financial audit would assess whether reported expenditure balances match actual disbursements, whether funds were used for purposes permitted by programme documentation, and whether the cooperative's accounting records are sufficiently reliable to support an audit opinion. The issuance of a qualified, adverse, or disclaimer opinion on a cooperative's financial statements would trigger a chain of follow-up consequences under Article 8 of Law No. 15 of 2006, potentially including referral to law enforcement authorities under Article 10.²⁰

Performance audits embody an efficiency and effectiveness logic: they interrogate not simply the accuracy of accounts but the relationship between public resources deployed and development outcomes achieved. For the Koperasi Merah Putih programme, the performance audit question is whether the formation of 80,000 village cooperatives at public expense has generated, or is on track to generate, measurable improvements in rural economic wellbeing, financial inclusion, and cooperative sustainability. This audit type is particularly powerful as a preventive governance instrument because it operates upstream of individual financial transactions, examining programme design quality, implementation processes, and outcome measurement frameworks before mismanagement crystallizes into irrecoverable losses.²¹

PDTT, particularly the compliance audit subtype, carries the most direct preventive-oversight salience. Compliance audits assess whether programme implementation conforms to applicable legal requirements, a question that, in the Koperasi Merah Putih context, encompasses adherence to Inpres No. 9/2025, the regulatory system governing village fund use, cooperative formation requirements under Law No. 25 of 1992, and the financial management and reporting obligations applicable to entities receiving state transfers. The absence of specific derivative technical regulations for the programme, as the next section reviews, profoundly complicates this audit type by depriving BPK of the normative benchmarks against which to identify compliance deviations.²²

¹⁹ I Made Gemet Dananjaya Suta, I Gusti Agung Mas Prabandari, and Ni Luh Gede Astariyani, "Determining State's Financial Losses in Corruption: An Institutional Power and Constraint in Indonesia," *Lentera Hukum* 8, no. 1 (April 24, 2021): 95, <https://doi.org/10.19184/ejhl.v8i1.21923>.

²⁰ Efrizal Syofyan et al., "The Characteristics of the Audit Committee Affecting Timeliness of the Audit Report in Indonesia," ed. Collins G. Ntim, *Cogent Business & Management* 8, no. 1 (January 6, 2021), <https://doi.org/10.1080/23311975.2021.1935183>; Giulia Leoni et al., "Accounting, Management and Accountability in Times of Crisis: Lessons from the COVID-19 Pandemic," *Accounting, Auditing & Accountability Journal* 34, no. 6 (July 23, 2021): 1305–19, <https://doi.org/10.1108/AAAJ-05-2021-5279>; Thomas Ahrens and Laurence Ferry, "Accounting and Accountability Practices in Times of Crisis: A Foucauldian Perspective on the UK Government's Response to COVID-19 for England," *Accounting, Auditing & Accountability Journal* 34, no. 6 (July 23, 2021): 1332–44, <https://doi.org/10.1108/AAAJ-07-2020-4659>.

²¹ Alper Kara, Haoyong Zhou, and Yifan Zhou, "Achieving the United Nations' Sustainable Development Goals through Financial Inclusion: A Systematic Literature Review of Access to Finance across the Globe," *International Review of Financial Analysis* 77 (October 2021): 101833, <https://doi.org/10.1016/j.irfa.2021.101833>; Taryn M. Garlock et al., "Environmental, Economic, and Social Sustainability in Aquaculture: The Aquaculture Performance Indicators," *Nature Communications* 15, no. 1 (June 20, 2024): 5274, <https://doi.org/10.1038/s41467-024-49556-8>.

²² Shawn Alderman, Brandon Feusner, and Crystal Heishman, "Implementation of a High-Level Disinfection Audit Program to Standardize Processes and Improve Compliance at an Academic Health System," *American Journal of Infection Control* 50, no. 7 (July 2022): S21–22, <https://doi.org/10.1016/j.ajic.2022.03.104>; Bo Lyu and Xiaohong Yu, "Corporate Compliance Programs and Audit Pricing – a Quasi-Natural Experiment in China," *Managerial Auditing Journal* 40, no. 6 (August 19, 2025): 825–51, <https://doi.org/10.1108/MAJ-08-2024-4428>; Hamdani Hamdani, "Efektivitas Audit

Results

The Coordinative Character of Presidential Instructions and the Derivative Instrument Gap

A central but insufficiently appreciated legal constraint on BPK's oversight capacity is the constitutional and statutory character of the presidential instruction (instruksi presiden) as a regulatory instrument. Under Law No. 12 of 2011 on Legislation, as amended by Law No. 15 of 2019, the hierarchy of Indonesian legislative instruments places presidential instructions below government regulations, presidential regulations, and ministerial regulations in normative force. A presidential instruction is, in strict legal terms, an internal executive directive addressed to subordinate officials, instructing them to take specified administrative actions; it does not have the character of an abstract general legal norm binding on private parties, nor does it independently generate enforceable rights or obligations for non-governmental entities.²³

This description has a direct and severe implication for BPK's oversight function. Compliance audit, the most frequently appropriate audit type for a programme of this nature, requires normative benchmarks: specific, measurable, legally binding standards against which the auditor can determine whether the auditee's behaviour constitutes compliance or deviation. Inpres No. 9/2025, being a coordinative internal directive rather than a regulatory instrument, does not, in itself, supply these benchmarks. It instructs government officials to accelerate the formation of cooperatives; it does not prescribe the accounting standards that cooperative entities must apply to programme funds, the reporting formats and timelines they must observe, the governance structures they must maintain, or the accountability mechanisms by which programme officials and cooperative managers can be held responsible for non-compliance.²⁴

The resulting derivative instrument gap, the chasm between the programme's broad policy mandate and the detailed accountability infrastructure necessary to operationalise that mandate, is the most structurally consequential impediment to effective preventive oversight. It is also one of the impediments identified in this article, the most remediable: its resolution requires regulatory action within the executive branch's existing authority, without the need for new legislation. Article 9(1)(d) of Law No. 15 of 2006 expressly authorizes BPK to advise on draft legislation governing state financial management, and Article 9(2) entitles BPK to obtain financial information from all entities managing state finances. These provisions collectively create both the authority and the institutional pathway for BPK to advocate for derivative technical regulations as a precondition for effective preventive oversight.²⁵

Kepatuhan Belanja Bantuan Sosial APBN Kementerian Sosial Tahun 2020-2023," *Ekonomis: Journal of Economics and Business* 9, no. 1 (March 15, 2025): 338, <https://doi.org/10.33087/ekonomis.v9i1.2431>.

²³ Lalu Aria Nata Kusuma and Nawaz Syarif, "The Implications of Changes in the State Budget (APBN) through Presidential Instruction (Inpres) from the Perspective of Administrative Law," *Lex Journal: Kajian Hukum Dan Keadilan* 9, no. 2 (April 18, 2025): 199–218, <https://doi.org/10.25139/lex.v9i2.10047>; Hilda Halnum Salsabil Hilda, Muflih Munazih, and Siti Kunarti, "Tinjauan Hukum Administrasi Negara Terhadap Pembentukan Koperasi Desa Merah Putih Melalui Instruksi Presiden," *JURNAL USM LAW REVIEW* 8, no. 2 (June 30, 2025): 901–22, <https://doi.org/10.26623/julr.v8i2.12031>; Muh Fakhri B. Katili et al., "Reformasi Politik Dan Kewenangan Presiden: Analisis Kritis Terhadap Peran Instruksi Presiden Dalam Pembentukan Kebijakan Nasional," *Politika Progresif: Jurnal Hukum, Politik Dan Humaniora* 2, no. 2 (June 30, 2025): 373–83, <https://doi.org/10.62383/progres.v2i2.2057>.

²⁴ Putra and Sugimin, "The Limited Scope of BPK Audit and Comparison with Other Supreme Audit Institutions"; Moh. Annand Ananda Saputra, Aryo Dwiariief Susetyo, and Rachmat Hidayat, "Eksistensi BPK Dalam Melakukan Pengawasan Keuangan Negara."

²⁵ Oksana Novak, Oleksandr Melnychenko, and Oksana Oliynyk, "Improving the Regulation of the Derivatives Market as an Objective Prerequisite for Sustainable Development of the Global Financial System," ed. A. Kwilinski, *E3S Web of Conferences* 307 (September 22, 2021): 02002, <https://doi.org/10.1051/e3sconf/202130702002>; Dara Ayu Nianty, "Risk Evaluation of the Use of



The Inter-Governmental Fiscal Complication: Decentralization and Regional Autonomy

The governance complexity of the Koperasi Merah Putih programme is amplified by its intersection with Indonesia's fiscal decentralization architecture. The programme's financing through APBD and APBN means that BPK's oversight extends into the subnational fiscal domain, engaging the forty-eight BPK Representative Offices (Perwakilan BPK) that audit provincial and district-level government finances. But the programme's mode of delivery through Inpres creates a structural tension with the regional autonomy framework set out in Law No. 23 of 2014 on Regional Government.²⁶

Minister of Home Affairs Regulation No. 86 of 2017, Article 264(4), restricts amendments to the Regional Medium-Term Development Plan (RPJMD) to one occurrence per regional head's term of office. Where Inpres No. 9/2025 was promulgated after a region's RPJMD had been finalized the typical scenario given the instruction's February 2025 issuance regions encounter a binary choice: amend the RPJMD to accommodate the programme, potentially displacing previously prioritized local development spending, or accommodate cooperative programme expenditures through the annual Regional Government Work Plan (RKPD) and budget process without RPJMD alignment, creating a planning coherence deficit that itself raises compliance audit concerns.²⁷

For BPK's compliance audit function, this intergovernmental fiscal complication creates an additional layer of normative ambiguity. Determining whether a regional government's accommodation of Koperasi Merah Putih expenditures complies with regional planning and budgeting regulations requires navigating the intersection of national programme mandates and subnational planning laws, a normative exercise further complicated by the absence of specific guidance from the central government. The derivative instrument gap thus cascades downward through the fiscal federal system, creating accountability vacuums at each level of government.²⁸

First Impediment: Jurisdictional Access Asymmetry

While BPK's constitutional jurisdiction over cooperative recipients of state funds is clear in its normative formulation, the practical exercise of that jurisdiction encounters what this article terms jurisdictional access asymmetry: the disparity between the broad reach of constitutional mandate and the narrow channels through which audit access can actually be exercised against

Derivative Products in Financial Management Strategies," *Advances in Economics & Financial Studies* 3, no. 1 (January 31, 2025): 15–28, <https://doi.org/10.60079/aefts.v3i1.429>.

²⁶ Rizky Ridwan, Dede Riswandi, and Yudi Setia Rachmanda, "DETEKSI DINI KECURANGAN PADA PROGRAM KOPERASI MERAH PUTIH: ANALISIS KELEMBAGAAN DESA DAN IMPLEMENTASI MODEL SIPAK," *JURNAL EKONOMI PERJUANGAN* 7, no. 1 (June 19, 2025): 41–53, <https://doi.org/10.36423/jumper.v7i1.2260>; Adnan Hasanudin, Atik Winanti, and Aurora Jilena Meliala, "LEGAL CERTAINTY OF FINANCING OF MERAH PUTIH VILLAGE COOPERATIVES: INSTITUTIONAL ANALYSIS BETWEEN THE PRINCIPLE OF COOPERATIVE INDEPENDENCE AND STATE INTERVENTION," *Multidisciplinary Indonesian Center Journal (MICJO)* 2, no. 2 (July 26, 2025): 2400–2416, <https://doi.org/10.62567/micjo.v2i2.1145>; Hilda, Muflih Munazih, and Siti Kunarti, "Tinjauan Hukum Administrasi Negara Terhadap Pembentukan Koperasi Desa Merah Putih Melalui Instruksi Presiden."

²⁷ TIARNI DUHA and ELIYUNUS WARUWU, "BUDGET ANALYSIS AS A PLANNING TOOL AND REGIONAL DEVELOPMENT CONTROL IN NIAS DISTRICT (Study on Medium-Term Development Plans Nias Regency Region 2019-2022)," *International Journal of Management Studies and Social Science Research* 06, no. 03 (2024): 41–57, <https://doi.org/10.56293/IJMSSSR.2024.5005>; Helmy Boemiya, "CHANGES TO THE REGIONAL MEDIUM-TERM DEVELOPMENT PLAN DURING THE COVID-19 PANDEMIC PERIOD IN THE LEGAL PERSPECTIVE OF REGIONAL GOVERNMENT," *Trunojoyo Law Review* 5, no. 1 (July 9, 2023): 69–89, <https://doi.org/10.21107/tlr.v5i1.21053>.

²⁸ Amirah Ellyza Wahdi et al., "National Health Insurance Contribution to Family Planning Program Funding in Indonesia: A Fund Flow Analysis," *Gates Open Research* 7 (January 18, 2024): 105, <https://doi.org/10.12688/gatesopenres.14642.2>.



non-governmental entities operating outside the formal state administrative hierarchy.²⁹

Cooperative entities in Indonesia are organized under private law No. 25 of 1992 on Cooperatives and are not integrated into the governmental financial information infrastructure. They do not report to the Ministry of Finance's Integrated Financial Management Information System (SPAN), do not apply Standard Government Accounting (SAP) principles, and do not submit to the regular reporting obligations of government budget execution units (*satuan kerja*). Article 10 of Law No. 15 of 2006 grants the BPK the authority to request financial information from audited entities. Still, this authority depends in practice on the prior existence of a regulatory framework specifying what financial information must be maintained and in what form, requirements that, as established above, are absent for Koperasi Merah Putih entities.³⁰

The IHPS I for 2023 documented restricted information and documentary access as a major impediment to audit effectiveness in non-ministerial and community-based state fund recipients. This finding anticipates and confirms the challenge that Koperasi Merah Putih presents: an auditor who arrives at a cooperative's premises with a constitutional mandate and an insistence on financial records will find that mandate unenforceable if no regulatory obligation to maintain those records in auditable form has been established. Jurisdiction without access constitutes formal authority without substantive reach.³¹

Second Impediment: The Regulatory Vacuum and Its Subsequent Consequences

The derivative instrument gap identified in Section 4.3 constitutes the second, and arguably the most consequential, structural impediment to preventive oversight, because its effects cascade through every other element of the governance architecture. In the absence of binding technical regulations for the Koperasi Merah Putih programme, five cascading consequences follow:

First, BPK cannot formulate meaningful audit criteria for compliance audits, because compliance requires a standard against which to measure, and no such standard has been prescribed.³² Second, APIP bodies at the district and provincial levels, which would normally conduct first-line preventive oversight of programme implementation, lack the regulatory framework required to design their own oversight procedures.³³ Third, cooperative managers have no legally enforceable guidance on how to account for programme funds, creating both an accountability vacuum and a due process concern about holding managers liable for practices that were never prescribed.³⁴ Fourth, commercial banks and financial institutions channelling

²⁹ Wahdi et al.

³⁰ Nur Khasanah et al., "The Role of Knowledge Management and Sharing in Cooperatives Practices toward National Economic Recovery in the COVID-19 Pandemic Era," *Frontiers in Public Health* 10 (December 6, 2022), <https://doi.org/10.3389/fpubh.2022.963755>; Yuhertiana et al., "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence."

³¹ Zhihao Chang, Violet Rusu, and Jillian C. Kohler, "The Global Fund: Why Anti-Corruption, Transparency and Accountability Matter," *Globalization and Health* 17, no. 1 (December 18, 2021): 108, <https://doi.org/10.1186/s12992-021-00753-w>; Hamza Alqudah et al., "Examining the Critical Factors of Internal Audit Effectiveness from Internal Auditors' Perspective: Moderating Role of Extrinsic Rewards," *Heliyon* 9, no. 10 (October 2023): e20497, <https://doi.org/10.1016/j.heliyon.2023.e20497>.

³² Patrick Velte, "Archival Research on Integrated Reporting: A Systematic Review of Main Drivers and the Impact of Integrated Reporting on Firm Value," *Journal of Management and Governance* 26, no. 3 (September 25, 2022): 997–1061, <https://doi.org/10.1007/s10997-021-09582-w>.

³³ Jie Zhang and Zong-ming Zhang, "Ethics and Governance of Trustworthy Medical Artificial Intelligence," *BMC Medical Informatics and Decision Making* 23, no. 1 (January 13, 2023): 7, <https://doi.org/10.1186/s12911-023-02103-9>.

³⁴ Assunta Di Vaio et al., "The Transition towards Circular Economy and Waste within Accounting and Accountability Models: A Systematic Literature Review and Conceptual Framework," *Environment*,



programme credit cannot establish risk management procedures calibrated to the programmer's accountability requirements.³⁵ Fifth, and most insidiously, the absence of regulatory criteria precludes the statistical benchmarking that risk-based audit prioritization requires: BPK cannot reliably identify which cooperatives are high risk without baseline data on what normal cooperative financial management looks like under the programme.³⁶

Third Impediment: The Audit Universe Disproportion

The quantitative dimension of the oversight challenge is stark enough to warrant separate treatment. Inpres No. 9/2025 targets 80,000 cooperative entities, one for each of Indonesia's approximately 74,000 villages and 8,500 urban sub-districts. BPK's current auditor establishment, although substantial, is calibrated to audit several hundred central government entities, 34 provincial governments, 500-plus district and city governments, and numerous state-owned enterprises. The addition of 80,000 cooperative entities as potential audit subjects would expand BPK's audit universe by an order of magnitude, beyond the staffing expansion achievable within the programmer's operational timeframe.³⁷

LAN research (2022) found that BPK can audit only a fraction of state fund recipients annually. The implication, rarely stated with sufficient candour in policy discourse, is that comprehensive cooperative-level audit coverage is structurally impossible without fundamental redesign of the oversight architecture. BPK's strategic response must therefore be explicitly selective: it must identify the subset of cooperative entities warranting direct BPK audit based on risk indicators, cede routine oversight of the remainder to APIP and BPKP under clear delegation protocols, and design its own audit programme to generate nationally generalizable findings rather than entity-specific compliance determinations. The absence of a formalized framework for this tactical selectivity is itself a governance gap.³⁸

Fourth Impediment: Digital Infrastructure Fragmentation and the Financial Literacy Constraint

BPK's e-Audit system and the SIPTL monitoring platform constitute substantial investments in technology-enabled oversight, but their preventive value for the Koperasi Merah Putih programme is constrained by two interrelated infrastructure deficits. The first is the absence of a mandatory digital reporting gateway connecting cooperative financial systems to government financial monitoring platforms. Without such connectivity, BPK's e-Audit system can

Development and Sustainability 25, no. 1 (January 7, 2023): 734–810, <https://doi.org/10.1007/s10668-021-02078-5>.

³⁵ Nguyen Kim Quoc Trung, "The Relationship between Internal Control and Credit Risk – The Case of Commercial Banks in Vietnam," ed. David McMillan, *Cogent Business & Management* 8, no. 1 (January 27, 2021), <https://doi.org/10.1080/23311975.2021.1908760>; Maryem Naili and Younès Lahrichi, "Banks' Credit Risk, Systematic Determinants and Specific Factors: Recent Evidence from Emerging Markets," *Heliyon* 8, no. 2 (February 2022): e08960, <https://doi.org/10.1016/j.heliyon.2022.e08960>; Jomark Pablo Noriega, Luis Antonio Rivera, and José Alfredo Herrera, "Machine Learning for Credit Risk Prediction: A Systematic Literature Review," *Data* 8, no. 11 (November 7, 2023): 169, <https://doi.org/10.3390/data8110169>.

³⁶ Scott Ellis, Satish Sharma, and Janusz Brzeszczyński, "Systemic Risk Measures and Regulatory Challenges," *Journal of Financial Stability* 61 (August 2022): 100960, <https://doi.org/10.1016/j.jfs.2021.100960>; Hao Zhong et al., "From Data to Insights: The Application and Challenges of Knowledge Graphs in Intelligent Audit," *Journal of Cloud Computing* 13, no. 1 (May 29, 2024): 114, <https://doi.org/10.1186/s13677-024-00674-0>.

³⁷ Ellis, Sharma, and Brzeszczyński, "Systemic Risk Measures and Regulatory Challenges"; Zhong et al., "From Data to Insights: The Application and Challenges of Knowledge Graphs in Intelligent Audit."

³⁸ Putra and Sugimin, "The Limited Scope of BPK Audit and Comparison with Other Supreme Audit Institutions"; Moh. Annand Ananda Saputra, Aryo Dwiariief Susetyo, and Rachmat Hidayat, "Eksistensi BPK Dalam Melakukan Pengawasan Keuangan Negara."



process only information voluntarily submitted or collected through periodic field visits. This modality combines low coverage with high latency, providing neither immediate anomaly detection nor the complete data coverage that effective preventive oversight requires.³⁹

The second deficit is the stark mismatch between the technical requirements of digital reporting mandates and the digital capacity of prospective cooperative operators. OJK data consistently show financial literacy below 50% nationally and significantly lower in rural and remote areas, where Koperasi Merah Putih entities will primarily be established. Mandating digital financial reporting without concurrently investing in the connectivity infrastructure, device access, and training necessary to make compliance practically feasible would simply shift the locus of the accountability failure from cooperative financial management to cooperative digital compliance, a change of symptom without treatment of the underlying condition.⁴⁰

Pillar One: The Technical Regulation Imperative

The most foundational and most urgent element of the reform agenda is the promulgation of binding technical regulations that supply the accountability standards presently absent from the programmer's regulatory framework. BPK's advisory authority under Article 9(1)(d) of Law No. 15 of 2006 provides the normative basis for recommending this regulatory action to the executive branch. The optimal regulatory form is a joint ministerial regulation (Peraturan Bersama Menteri) among the Ministry of Cooperatives and SMEs, the Ministry of Finance, the Ministry of Home Affairs, and, crucially, BPK itself, establishing the following minimum accountability standards for Koperasi Merah Putih entities:

First, standardised cooperative financial reporting requirements, calibrated to the capacity of community-managed organisations, while generating data sufficient to support audit, including a simplified chart of accounts, mandatory quarterly financial statements, annual accountability reports with expenditure narrative, and a standardised format for reporting state fund utilization.⁴¹ Second, cooperative registration obligations in a government-linked cooperative management information system, making certain that the identity, governance structure, fund receipts, and annual accounts of all Koperasi Merah Putih entities are accessible to BPK and APIP through a single authoritative data source.⁴² Third, minimum internal control requirements, including the mandatory appointment of an internal oversight committee (badan pengawas), the mandatory external verification of annual accounts by a registered public accountant or a BPKP-accredited cooperative auditor for cooperatives above a specified fund threshold, and whistleblower protection procedures for cooperative employees.⁴³ Fourth,

³⁹ Zhang and Zhang, "Ethics and Governance of Trustworthy Medical Artificial Intelligence"; Marc Schmitt, "Securing the Digital World: Protecting Smart Infrastructures and Digital Industries with Artificial Intelligence (AI)-Enabled Malware and Intrusion Detection," *Journal of Industrial Information Integration* 36 (December 2023): 100520, <https://doi.org/10.1016/j.jii.2023.100520>.

⁴⁰ Benjamin Mueller, "Corporate Digital Responsibility," *Business & Information Systems Engineering* 64, no. 5 (October 12, 2022): 689–700, <https://doi.org/10.1007/s12599-022-00760-0>; Zhang and Zhang, "Ethics and Governance of Trustworthy Medical Artificial Intelligence."

⁴¹ Jiajing Wu et al., "Financial Crimes in Web3-Empowered Metaverse: Taxonomy, Countermeasures, and Opportunities," *IEEE Open Journal of the Computer Society* 4 (2023): 37–49, <https://doi.org/10.1109/OJCS.2023.3245801>; Harahap, Risfandy, and Futri, "Islamic Law, Islamic Finance, and Sustainable Development Goals: A Systematic Literature Review."

⁴² Zhang and Zhang, "Ethics and Governance of Trustworthy Medical Artificial Intelligence"; Mueller, "Corporate Digital Responsibility."

⁴³ Jawad Khan et al., "Examining Whistleblowing Intention: The Influence of Rationalization on Wrongdoing and Threat of Retaliation," *International Journal of Environmental Research and Public Health* 19, no. 3 (February 3, 2022): 1752, <https://doi.org/10.3390/ijerph19031752>; Sugeng Wahyudi, Tarmizi Achmad, and Imang Dapit Pamungkas, "Village Apparatus Competence, Individual Morality, Internal Control



graduated accountability consequences for reporting failures, ranging from administrative warnings and fund disbursement holds to criminal referral for deliberate falsification, provide the enforcement architecture necessary to give the reporting obligations their deterrent weight.⁴⁴

Pillar Two: A Tripartite Oversight Architecture

The audit universe disproportion documented in Section 5.3 cannot be resolved through BPK capacity expansion; it can only be managed through a principled redesign of the oversight architecture along tripartite lines. This article proposes a three-tier oversight model in which oversight responsibilities are differentiated by function and risk level across BPK, BPKP, and APIP:

Table 2. Proposed Tripartite Oversight Architecture for Koperasi Merah Putih

Oversight Tier	Institution	Primary Function	Audit Scope	Reporting Chain
Tier 1 Strategic	BPK	National performance audit; high-risk compliance audit; prosecutorial referral	Sampled cooperatives in high-risk regions; thematic national audits	DPR, DPD, DPRD, and the public
Tier 2 Operational	BPKP	Provincial thematic audits; quality assurance of APIP findings; investigative support	All provinces, high-risk districts, and APIP quality reviews	President and line ministries
Tier 3 Preventive	APIP (Inspectorate)	Routine preventive audit; registration verification; on-site compliance monitoring	All cooperative entities within district jurisdiction	Regional head and BPKP

This tripartite architecture would be operationalized through a legally binding joint oversight agreement (*Perjanjian Kerja Sama Pengawasan Bersama*) among BPK, BPKP, and the Coordinating Ministry for Economic Affairs, specifying reporting guidelines, data-sharing arrangements, escalation procedures for findings requiring a higher-tier response, and conflict-resolution mechanisms for cases of jurisdictional overlap. Presidential Regulation No. 192 of 2014 on BPKP provides the existing legal infrastructure for formalizing BPK-BPKP coordination, and Article 9(1)(c) of Law No. 15 of 2006 authorises BPK to enter into cooperation agreements with SAI counterpart institutions, a provision that, while directed at international cooperation, by analogy supports intra-national inter-agency coordination agreements.

Pillar Three: Integrated e-Audit Infrastructure with Phased Mandatory Reporting

The identified digital infrastructure deficit requires a two-track response: technical integration of cooperative financial reporting with government monitoring systems, and a phased capacity-building programme that sequences reporting obligations to align with the realistic pace of cooperative digital capacity development.⁴⁵

System and Whistleblowing System on Village Fund Fraud," *WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT* 17 (July 7, 2021): 672–84, <https://doi.org/10.37394/232015.2021.17.65>.

⁴⁴ Erika L. Sabbath et al., "US Obstetrician-Gynecologists' Perceived Impacts of Post- Dobbs v Jackson State Abortion Bans," *JAMA Network Open* 7, no. 1 (January 17, 2024): e2352109, <https://doi.org/10.1001/jamanetworkopen.2023.52109>; Clara Cestonaro et al., "Defining Medical Liability When Artificial Intelligence Is Applied on Diagnostic Algorithms: A Systematic Review," *Frontiers in Medicine* 10 (November 27, 2023), <https://doi.org/10.3389/fmed.2023.1305756>.

⁴⁵ Saikiran Subbagari, "Counter Measures to Combat Money Laundering in the New Digital Age," *Digital Threats: Research and Practice* 5, no. 2 (June 30, 2024): 1–13, <https://doi.org/10.1145/3626826>; Ryan Randy Suryono, Indra Budi, and Betty Purwandari, "Detection of Fintech P2P Lending Issues in



On the technical integration track, this article proposes that Koperasi Merah Putih entities be required to register and report through a dedicated module of the existing Village Fund Management Information System (Sistem Informasi Keuangan Desa, SISKEUDES), which is already deployed across the majority of Indonesia's villages and is integrated with the Ministry of Home Affairs' digital governance infrastructure. A BPK-readable data interface within SISKEUDES would enable automated extraction of cooperative financial data for e-Audit processing, immediate anomaly detection through statistical comparison with cooperative peer groups, and systematic identification of non-reporting entities for APIP follow-up. This approach uses existing infrastructure rather than building a new platform, reducing implementation costs and timelines while utilizing the digital governance competencies that village administrations have already developed through the village fund programme.

On the capacity-building track, the staged implementation of digital reporting obligations should proceed in three stages, coordinated with the programme's cooperative formation schedule. In the first year of programme implementation, reporting obligations should be limited to fund receipt acknowledgment and basic expenditure categorisation, deliverable through the simplified SISKEUDES cooperative module. In the second year, quarterly financial statements should be introduced for cooperatives that exceed a specified fund threshold, with BPKP field officers providing technical assistance to cooperative accountants. From the third year, full standardised financial reporting should be mandated for all cooperatives, with face-to-face training replaced by digital self-service guidance and peer-learning networks. This phased trajectory demonstrates the lesson from Brazil's PRONAF experience: accountability infrastructure must be grown at the pace of institutional capacity, or it will generate compliance rituals rather than substantive accountability.⁴⁶

Pillar Four: Risk-Based Audit Prioritization with a National Cooperative Risk Registry

Given the structural impossibility of comprehensive cooperative-level audit coverage, BPK's audit planning methodology must be explicitly and rigorously risk-based. This article proposes establishing a National Cooperative Risk Registry (NCRR), a continuously updated database maintained by BPK in collaboration with BPKP and the Ministry of Cooperatives and SMEs, that assigns risk scores to Koperasi Merah Putih entities based on a standardised composite risk index.

The composite risk index would incorporate both static and dynamic indicators: static indicators including the volume of state funds received per cooperative entity, the regional government's prior audit opinion profile and financial condition score, the cooperative's compliance with registration and reporting obligations, and the socioeconomic vulnerability index of the cooperative's operational locality; dynamic indicators including anomalies in fund disbursement and utilization patterns detected through SISKEUDES data analytics, whistleblower reports received through BPK's complaint management system, and APIP findings from Tier 3 routine audits. High-risk cooperatives identified by the NCRR would be given priority for a BPK direct audit or escalation to a Tier 2 BPKP examination; medium-risk cooperatives would receive intensified APIP oversight; and low-risk cooperatives would be subject to the routine APIP preventive audit cycle.⁴⁷

Indonesia," *Heliyon* 7, no. 4 (April 2021): e06782, <https://doi.org/10.1016/j.heliyon.2021.e06782>; Schmitt, "Securing the Digital World: Protecting Smart Infrastructures and Digital Industries with Artificial Intelligence (AI)-Enabled Malware and Intrusion Detection."

⁴⁶ Mueller, "Corporate Digital Responsibility"; Zhang and Zhang, "Ethics and Governance of Trustworthy Medical Artificial Intelligence."

⁴⁷ Konrad Degen and Alexander Gleiss, "Time to Break up? The Case for Tailor-Made Digital Platform Regulation Based on Platform-Governance Standard Types," *Electronic Markets* 35, no. 1



This risk-based architecture corresponds to the methodology developed by Brazil's TCU for PRONAF, adapted to the specific institutional context of Indonesian fiscal governance. Its implementation would require both the technical development of the NCRR platform, feasible within BPK's existing information technology infrastructure, and the promulgation of a BPK regulation establishing the NCRR's legal basis, methodology, and data governance framework, consistent with BPK's regulatory authority under Article 5(2) of Law No. 15 of 2006.

Pillar Five: Institutional Independence Safeguards for High-Visibility Programme Audits

The fifth pillar of the reform agenda addresses the independence dimension of the accountability paradox, the latent but structurally grounded risk that BPK's audit rigour is modulated by the political prominence of the Koperasi Merah Putih programme as a flagship presidential initiative. Institutional independence in SAIs is never a binary attribute; it exists on a continuum determined by appointment mechanisms, budget allocation processes, audit planning authority, and the consequences of reporting adverse findings. For BPK, the parliamentary appointment mechanism for Board members creates latent linkages to political principals that, while not necessarily corrupting in specific instances, create systemic vulnerability to attrition of independence when audit findings confront high-visibility executive programmes.

The reform agenda within this domain is necessarily multi-institutional. Within BPK, the adoption of explicit quality assurance protocols for audits of presidential programme entities, including mandatory peer review of audit plans and findings, prohibition on the early disclosure of preliminary findings to programme ministries, and methodical documentation of any executive communications during audit processes would create a procedural record that both deters and, if necessary, documents inappropriate interference. Outside BPK, strengthening DPR oversight of BPK's audit planning and findings through the Audit Board Supervision Commission (Komisi Pembina BPK) would provide an additional layer of organizational accountability for audit quality. And the development of civil society capacity to monitor and critique BPK's audit coverage of the Koperasi Merah Putih programme, supported by BPK's public disclosure of audit plans and findings under Article 23E (2) of UUD 1945, would create a public accountability dynamic that supports the institutional safeguards.

Discussion

The Accountability Paradox as a General Governance Proposition

The accountability paradox of state-directed mutual finance, developed in this article through the Indonesian case, has implications that extend considerably beyond the specific programmatic context. It represents a particular instantiation of a wider governance tension that arises whenever states attempt to harness the adaptive strengths of community-based or informal-sector organisations to deliver public programmes while simultaneously subjecting those programmes to the formal accountability disciplines of the public financial management system. This tension is not unique to cooperatives; it recurs in community-based natural resource management, informal settlement upgrading programmes, participatory budgeting initiatives, and faith-based social service delivery schemes.⁴⁸

The analytic contribution of the accountability paradox concept is that it reframes the governance challenge from a problem of institutional failure, BPK is under-resourced, the regulations are incomplete, the digital infrastructure is inadequate, to a problem of structural mismatch between the logic of developmental governance and the logic of public accountability

(December 17, 2025): 5, <https://doi.org/10.1007/s12525-024-00747-7>; Ellis, Sharma, and Brzeszczyński, "Systemic Risk Measures and Regulatory Challenges."

⁴⁸ Hannah R. Thompson et al., "Accountability and Funding for State-Level School Physical Education and Recess Laws," *American Journal of Preventive Medicine* 69, no. 5 (November 2025): 108017, <https://doi.org/10.1016/j.amepre.2025.108017>.



governance. Neither logic is wrong; neither should be sacrificed to the other. What is required is institutional architecture sophisticated enough to honour both logics simultaneously: accountability frameworks rigorous enough to deter misappropriation and satisfy constitutional audit standards, and flexible enough not to strip cooperative governance of the participatory and community-embedded characteristics that give it developmental value.

The five-pillar reform agenda proposed in Section 6 is designed to manage this structural mismatch rather than eliminate it. The accountability paradox is an enduring feature of state-directed collaborative finance, not a problem that better regulation can finally solve. What better regulation can achieve is the compression of the paradox, the reduction of the gap between accountability aspiration and accountability reality to a point where the programme's developmental benefits reliably outweigh its governance risks. The Brazilian TCU's experience with PRONAF, which reduced reporting irregularities from 47 percent to 19 percent over a decade of targeted institutional innovation, suggests that this compression is achievable, even if full resolution persists as an asymptotic goal.⁴⁹

Consequences for Indonesia's Fiscal Federalism and Regional Autonomy

The intersection of Inpres No. 9/2025 with Indonesia's fiscal federalism architecture raises governance questions that go beyond the immediate programme to the integrity of Indonesia's decentralized governance system. The constitutional principle of regional autonomy is elaborated in Law No. 23 of 2014. It is grounded in the amendment of the UUD 1945 through the addition of Article 18 and its related provisions, which envisions regional governments as genuine governance actors with the authority to set development priorities in accordance with local needs and capacities, rather than merely administrative outposts of the central government obligated to implement every presidential initiative.⁵⁰

The compulsory character of Inpres No. 9/2025, which, despite its coordinative legal form, carries the full weight of presidential authority in Indonesia's hierarchical administrative culture, creates structural conditions for the displacement of locally owned development priorities by a centrally imposed programme whose design did not emerge from local participatory planning. The single-amendment constraint on RPJMD modification means that regions that accommodate the cooperative programme through RPJMD revision may forfeit their only remaining opportunity to adjust medium-term planning in response to locally identified needs. This is not a marginal governance concern; it strikes at the constitutional architecture of decentralised development planning.

BPK's performance audit function is uniquely positioned to surface this governance dimension. A performance audit that evaluated not only the financial compliance of Koperasi Merah Putih expenditures but also the programme's alignment with regional development planning frameworks, as well as the opportunity costs of RPJMD amendments required to accommodate it, would yield findings of direct constitutional relevance. Such an audit would address the DPR and DPD, the constitutional recipients of BPK audit results under Article 23E(2). It would include findings bearing on the integrity of Indonesia's fiscal federalism arrangements, thereby aiding the constitutional accountability function that BPK's mandate was designed to serve.⁵¹

⁴⁹ Lin Lin, "Venture Capital in the Rise of Sustainable Investment," *European Business Organization Law Review* 23, no. 1 (March 17, 2022): 187–216, <https://doi.org/10.1007/s40804-021-00238-8>.

⁵⁰ Herbert Küpper, "The Indonesian Constitution Read with German Eyes," *Constitutional Review* 7, no. 1 (May 31, 2021): 53, <https://doi.org/10.31078/consrev713>.

⁵¹ Bambang Tjahjadi, Noorlailie Soewarno, and Febriani Mustikaningtiyas, "Good Corporate Governance and Corporate Sustainability Performance in Indonesia: A Triple Bottom Line Approach," *Heliyon* 7, no. 3 (March 2021): e06453, <https://doi.org/10.1016/j.heliyon.2021.e06453>.



Comparative Lessons and the Global Governance Agenda for SAIs in Decentralised States

The Indonesian case joins India, the Philippines, Kenya, and Brazil in a growing body of comparative evidence on the governance challenges that SAIs encounter when national governments deploy large-scale public fund programmes through decentralised or community-based intermediaries. Several generalizable governance lessons emerge from this comparative survey:

First, constitutional or statutory jurisdiction is a necessary but insufficient condition for effective SAI oversight of community-based fund recipients. The critical enabling conditions, normative benchmarks, data access, and institutional capacity, proportionate to the audit universe, must be consciously designed into the programme architecture from the outset, rather than retrofitted after implementation failures. This implies that SAIs should be engaged as institutional advisers during programme design, not simply as post-hoc auditors.⁵²

Second, the most effective SAI responses to the accountability paradox in comparative experience, Brazil's TCU being the most instructive example, combine risk stratification, technology-enabled monitoring, graduated enforcement, and capacity building into an integrated oversight system rather than relying on any single instrument. The Brazilian evidence also suggests that sustained institutional commitment over multi-year periods is required to achieve measurable governance improvements; single-cycle audit interventions yield findings that rarely change the governance environment.⁵³

Third, the international SAI community's normative frameworks, particularly INTOSAI's Fundamental Auditing Principles (ISSAI 100–400) and the Lima and Mexico Declarations on SAI independence, provide a shared governance vocabulary for articulating and evaluating national SAI reform agendas. BPK's reform agenda for the Koperasi Merah Putih programme should be explicitly benchmarked against these international standards, both to legitimate the reform proposals domestically and to contribute to the international corpus of knowledge on SAI innovation in decentralised governance contexts.⁵⁴

Conclusion

This article has advanced a conceptually grounded, normatively rigorous, and comparatively informed analysis of the governance challenges confronting Indonesia's Audit Board (BPK) in discharging its preventive oversight mandate regarding the Koperasi Merah Putih programme. Three theoretical contributions and five policy conclusions emerge from the analysis.

On the theoretical plane, the article has: (1) developed the concept of the accountability paradox of state-directed collaborative finance as an analytical tool usable across national contexts and programme types; (2) constructed a four-dimensional typology of SAI oversight modalities that clarifies the distinct governance logics of preventive, detective, corrective, and systemic oversight; and (3) established a comparative diagnostic of SAI challenges in

⁵² Albino Kalolo et al., "Factors Influencing Variation in Implementation Outcomes of the Redesigned Community Health Fund in the Dodoma Region of Tanzania: A Mixed-Methods Study," *BMC Public Health* 21, no. 1 (December 2, 2021): 1, <https://doi.org/10.1186/s12889-020-10013-y>; Paul Eze, Stanley Ilechukwu, and Lucky Osaheni Lawani, "Impact of Community-Based Health Insurance in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis," ed. Lara Vojnov, *PLOS ONE* 18, no. 6 (June 27, 2023): e0287600, <https://doi.org/10.1371/journal.pone.0287600>.

⁵³ Breuer and Leininger, "Horizontal Accountability for SDG Implementation: A Comparative Cross-National Analysis of Emerging National Accountability Regimes."

⁵⁴ Evert Waeterloos, "Introducing Collaborative Governance in Decentralized Land Administration and Management in South Africa: District Land Reform Committees Viewed through a 'System of Innovation' Lens," *Land* 10, no. 5 (May 18, 2021): 534, <https://doi.org/10.3390/land10050534>; Matthijs J Janssen et al., "The Promises and Premises of Mission-Oriented Innovation Policy—A Reflection and Ways Forward," *Science and Public Policy*, June 14, 2021, <https://doi.org/10.1093/scipol/scaa072>.

decentralised community-based fund programmes across the Global South, yielding generalizable governance lessons.

On the policy plane, the analysis compels five conclusions. First, BPK's constitutional jurisdiction over Koperasi Merah Putih entities is unambiguous and indisputable; the accountability paradox does not raise a jurisdictional question but rather a capacity and regulatory-structure question. Second, the derivative instrument gap is the most consequential and most remediable structural impediment; its resolution through binding technical regulations is the single highest-priority governance reform. Third, the audit universe disproportion makes tripartite oversight architecture, BPK, BPKP, APIP, a structural necessity rather than an optional enhancement. Fourth, an integrated e-audit infrastructure with phased mandatory reporting is the technological precondition for scaling preventive oversight across 80,000 decentralised entities. Fifth, the institutional independence dimension of the accountability paradox demands explicit procedural and institutional safeguards that supplement, rather than rely upon, BPK's formal constitutional independence.

The Koperasi Merah Putih programme constitutes a genuine, constitutionally grounded commitment to rural economic renewal through cooperative organization. The accountability paradox it generates is not a reason to abandon that commitment, but a reason to invest with the same seriousness in the governance architecture that will make the commitment redeemable. Indonesia, under BPK's constitutional mandate and legal framework, has a governance instrument of considerable potential power. What it currently lacks is the regulatory completeness, institutional coordination, and technical infrastructure to deploy that instrument at the scale and in the form that the programme demands. The reform agenda proposed in this article is designed to fill those gaps not as an administrative exercise, but as a constitutional imperative.

CRedit Authorship Contribution Statement

Mayolla Octavia: Conceptualization, Methodology, Writing-Original Draft. **W. Riawan Tjandra:** Supervision, Methodology, Writing-review & editing.

Declaration of Competing Interest

The authors declare that they have no competing financial interests or personal relationships that could influence the work reported in this paper.

Data Availability

Data will be made available on request.

References

- Ackary, Samantha Joan, Alen Josef Santiago, Gianna Gayle Herrera Amul, and Patrik James De Leon Cabrera. "Assessing Industry Compliance with the Graphic Health Warnings Law in the Philippines: Challenges in Multisectoral Tobacco Governance." *Tobacco Control*, October 15, 2025, tc-2024-058973. <https://doi.org/10.1136/tc-2024-058973>.
- Adil, Mohd, Yogita Singh, and Mohd. Shamim Ansari. "How Financial Literacy Moderate the Association between Behaviour Biases and Investment Decision?" *Asian Journal of Accounting Research* 7, no. 1 (February 21, 2022): 17–30. <https://doi.org/10.1108/AJAR-09-2020-0086>.
- Agostino, Deborah. "Navigating the Accountability Paradoxes of Financial Resource Abundance in the Post-Pandemic Public Service Delivery." *Governance* 39, no. 1 (January 2, 2026). <https://doi.org/10.1111/gove.70078>.



- Ahrens, Thomas, and Laurence Ferry. "Accounting and Accountability Practices in Times of Crisis: A Foucauldian Perspective on the UK Government's Response to COVID-19 for England." *Accounting, Auditing & Accountability Journal* 34, no. 6 (July 23, 2021): 1332–44. <https://doi.org/10.1108/AAAJ-07-2020-4659>.
- Alderman, Shawn, Brandon Feusner, and Crystal Heishman. "Implementation of a High-Level Disinfection Audit Program to Standardize Processes and Improve Compliance at an Academic Health System." *American Journal of Infection Control* 50, no. 7 (July 2022): S21–22. <https://doi.org/10.1016/j.ajic.2022.03.104>.
- Alqudah, Hamza, Noor Afza Amran, Haslinda Hassan, Abdalwali Lutfi, Noha Alessa, Mahmaod Alrawad, and Mohammed Amin Almaiah. "Examining the Critical Factors of Internal Audit Effectiveness from Internal Auditors' Perspective: Moderating Role of Extrinsic Rewards." *Heliyon* 9, no. 10 (October 2023): e20497. <https://doi.org/10.1016/j.heliyon.2023.e20497>.
- Amtiran, Paulina Y, and Aldarine Molidya. "PENGELOLAAN KEUANGAN NEGARA." *Journal of Management: Small and Medium Enterprises (SMEs)* 12, no. 2 (September 25, 2020). <https://doi.org/10.35508/jom.v12i2.2693>.
- Andini, Siska Dwi. "AUDIT INVESTIGASI PEMBUKTIAN KERUGIAN KEUANGAN NEGARA OLEH BADAN PEMERIKSA KEUANGAN DALAM PENYIDIKAN KASUS KORUPSI." *Jurnal Globalisasi Hukum* 2, no. 1 (March 16, 2025): 74–89. <https://doi.org/10.25105/jgh.v2i1.21903>.
- Bardach, E., and C. Lesser. "Accountability in Human Services Collaboratives--For What? And To Whom?" *Journal of Public Administration Research and Theory* 6, no. 2 (April 1, 1996): 197–224. <https://doi.org/10.1093/oxfordjournals.jpart.a024307>.
- Bi, Shihong. "Cooperation between China and ASEAN under the Building of ASEAN Economic Community." *Journal of Contemporary East Asia Studies* 10, no. 1 (January 2, 2021): 83–107. <https://doi.org/10.1080/24761028.2021.1888410>.
- Boemiya, Helmy. "CHANGES TO THE REGIONAL MEDIUM-TERM DEVELOPMENT PLAN DURING THE COVID-19 PANDEMIC PERIOD IN THE LEGAL PERSPECTIVE OF REGIONAL GOVERNMENT." *Trunojoyo Law Review* 5, no. 1 (July 9, 2023): 69–89. <https://doi.org/10.21107/tlr.v5i1.21053>.
- Breuer, Anita, and Julia Leininger. "Horizontal Accountability for SDG Implementation: A Comparative Cross-National Analysis of Emerging National Accountability Regimes." *Sustainability* 13, no. 13 (June 22, 2021): 7002. <https://doi.org/10.3390/su13137002>.
- Búrigo, Fábio Luiz, Valdemar João Wesz Junior, Adinor José Capellesso, and Ademir Antônio Cazella. "O Sistema Nacional de Crédito Rural No Brasil: Principais Continuidades e Descontinuidades No Período 2003-2014." *Estudos Sociedade e Agricultura* 29, no. 3 (October 1, 2021): 635–68. <https://doi.org/10.36920/esa-v29n3-6>.
- Candra, Lisa Ade, Achmad Ruslan, and Marten Arie. "The Authority of the State Audit Board in Managing State Finances as an Effort to Prevent Corruption." *Jurnal Hukum Volkgeist* 7, no. 1 (December 31, 2022): 89–96. <https://doi.org/10.35326/volkgeist.v7i1.2810>.
- Cestonaro, Clara, Arianna Delicati, Beatrice Marcante, Luciana Caenazzo, and Pamela Tozzo. "Defining Medical Liability When Artificial Intelligence Is Applied on Diagnostic Algorithms: A Systematic Review." *Frontiers in Medicine* 10 (November 27, 2023). <https://doi.org/10.3389/fmed.2023.1305756>.
- Chang, Zhihao, Violet Rusu, and Jillian C. Kohler. "The Global Fund: Why Anti-Corruption, Transparency and Accountability Matter." *Globalization and Health* 17, no. 1 (December 18, 2021): 108. <https://doi.org/10.1186/s12992-021-00753-w>.
- Chaves, Leandra Vilela Rodrigues, Marcos de Moraes Sousa, Woska Pires da Costa, Jéssica Tragueto, Flávio Manoel Coelho Borges Cardoso, and Miguel de Matos-Torres. "Best Practices of Judicial Governance: A Scoping Review Protocol." Edited by Vinaya Satyawati. *PLOS One* 20, no. 8 (August 28, 2025): e0329904. <https://doi.org/10.1371/journal.pone.0329904>.



- Degen, Konrad, and Alexander Gleiss. "Time to Break up? The Case for Tailor-Made Digital Platform Regulation Based on Platform-Governance Standard Types." *Electronic Markets* 35, no. 1 (December 17, 2025): 5. <https://doi.org/10.1007/s12525-024-00747-7>.
- DUHA, TIARNI, and ELIYUNUS WARUWU. "BUDGET ANALYSIS AS A PLANNING TOOL AND REGIONAL DEVELOPMENT CONTROL IN NIAS DISTRICT (Study on Medium-Term Development Plans Nias Regency Region 2019-2022)." *International Journal of Management Studies and Social Science Research* 06, no. 03 (2024): 41–57. <https://doi.org/10.56293/IJMSSSR.2024.5005>.
- Ellis, Scott, Satish Sharma, and Janusz Brzezczynski. "Systemic Risk Measures and Regulatory Challenges." *Journal of Financial Stability* 61 (August 2022): 100960. <https://doi.org/10.1016/j.jfs.2021.100960>.
- Eze, Paul, Stanley Ilechukwu, and Lucky Osaheni Lawani. "Impact of Community-Based Health Insurance in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis." Edited by Lara Vojnov. *PLOS ONE* 18, no. 6 (June 27, 2023): e0287600. <https://doi.org/10.1371/journal.pone.0287600>.
- Fronzetti Colladon, Andrea, and Elisa Remondi. "Using Social Network Analysis to Prevent Money Laundering." *Expert Systems with Applications* 67 (January 2017): 49–58. <https://doi.org/10.1016/j.eswa.2016.09.029>.
- Garlock, Taryn M., Frank Asche, James L. Anderson, Håkan Eggert, Thomas M. Anderson, Bin Che, Carlos A. Chávez, et al. "Environmental, Economic, and Social Sustainability in Aquaculture: The Aquaculture Performance Indicators." *Nature Communications* 15, no. 1 (June 20, 2024): 5274. <https://doi.org/10.1038/s41467-024-49556-8>.
- Gathitu, Catherine Wanjiru, Elegwa Mukulu, and John Kihoro. "The Influence of Credit on the Growth of YEDF- Funded Group-Based Enterprises in Nairobi County, Kenya." *International Journal of Research in Business and Social Science (2147- 4478)* 10, no. 2 (March 21, 2021): 183–94. <https://doi.org/10.20525/ijrbs.v10i2.1063>.
- Hamdani, Hamdani. "Efektivitas Audit Kepatuhan Belanja Bantuan Sosial APBN Kementerian Sosial Tahun 2020-2023." *Ekonomis: Journal of Economics and Business* 9, no. 1 (March 15, 2025): 338. <https://doi.org/10.33087/ekonomis.v9i1.2431>.
- Harahap, Burhanudin, Tastaftiyan Risfandy, and Inas Nurfadia Putri. "Islamic Law, Islamic Finance, and Sustainable Development Goals: A Systematic Literature Review." *Sustainability* 15, no. 8 (April 13, 2023): 6626. <https://doi.org/10.3390/su15086626>.
- Hasanudin, Adnan, Atik Winanti, and Aurora Jilena Meliala. "LEGAL CERTAINTY OF FINANCING OF MERAH PUTIH VILLAGE COOPERATIVES: INSTITUTIONAL ANALYSIS BETWEEN THE PRINCIPLE OF COOPERATIVE INDEPENDENCE AND STATE INTERVENTION." *Multidisciplinary Indonesian Center Journal (MICJO)* 2, no. 2 (July 26, 2025): 2400–2416. <https://doi.org/10.62567/micjo.v2i2.1145>.
- Henderson, Rebecca M. "Changing the Purpose of the Corporation to Rebalance Capitalism." *Oxford Review of Economic Policy* 37, no. 4 (November 8, 2021): 838–50. <https://doi.org/10.1093/oxrep/grab034>.
- Hilda, Hilda Halnum Salsabil, Muflih Munazih, and Siti Kunarti. "Tinjauan Hukum Administrasi Negara Terhadap Pembentukan Koperasi Desa Merah Putih Melalui Instruksi Presiden." *JURNAL USM LAW REVIEW* 8, no. 2 (June 30, 2025): 901–22. <https://doi.org/10.26623/julr.v8i2.12031>.
- Hoffmann, Vivian, Vijayendra Rao, Vaishnavi Surendra, and Upamanyu Datta. "Relief from Usury: Impact of a Self-Help Group Lending Program in Rural India." *Journal of Development Economics* 148 (January 2021): 102567. <https://doi.org/10.1016/j.jdevco.2020.102567>.
- Janssen, Matthijs J, Jonas Torrens, Joeri H Wesseling, and Iris Wanzenböck. "The Promises and Premises of Mission-Oriented Innovation Policy—A Reflection and Ways Forward." *Science and Public Policy*, June 14, 2021. <https://doi.org/10.1093/scipol/scaa072>.



- Jayant, Dr. Jai, and Chandra Dev Bhatt. "An Overview of Sustainable Development through Micro Finance: A Study of Self Help Group – Bank Linkage Program in Central Region of India." *Journal of University of Shanghai for Science and Technology* 23, no. 05 (May 19, 2021): 294–318. <https://doi.org/10.51201/JUSST/21/05139>.
- Kalolo, Albino, Lara Gautier, Ralf Radermacher, Siddharth Srivastava, Menoris Meshack, and Manuela De Allegri. "Factors Influencing Variation in Implementation Outcomes of the Redesigned Community Health Fund in the Dodoma Region of Tanzania: A Mixed-Methods Study." *BMC Public Health* 21, no. 1 (December 2, 2021): 1. <https://doi.org/10.1186/s12889-020-10013-y>.
- Kara, Alper, Haoyong Zhou, and Yifan Zhou. "Achieving the United Nations' Sustainable Development Goals through Financial Inclusion: A Systematic Literature Review of Access to Finance across the Globe." *International Review of Financial Analysis* 77 (October 2021): 101833. <https://doi.org/10.1016/j.irfa.2021.101833>.
- Katili, Muh Fakhri B., Riyanto Moonti, Roy Marthen Moonti, and Muslim A. Kasim. "Reformasi Politik Dan Kewenangan Presiden: Analisis Kritis Terhadap Peran Instruksi Presiden Dalam Pembentukan Kebijakan Nasional." *Politika Progresif: Jurnal Hukum, Politik Dan Humaniora* 2, no. 2 (June 30, 2025): 373–83. <https://doi.org/10.62383/progres.v2i2.2057>.
- Khan, Jawad, Imran Saeed, Muhammad Zada, Amna Ali, Nicolás Contreras-Barraza, Guido Salazar-Sepúlveda, and Alejandro Vega-Muñoz. "Examining Whistleblowing Intention: The Influence of Rationalization on Wrongdoing and Threat of Retaliation." *International Journal of Environmental Research and Public Health* 19, no. 3 (February 3, 2022): 1752. <https://doi.org/10.3390/ijerph19031752>.
- Khasanah, Nur, Jaka Sriyana, Andjar Prasetyo, Vita Nurdinawati, Agustinus Hartopo, Heri Wahyudianto, Dewi Gartika, and Mochammad Fahlevi. "The Role of Knowledge Management and Sharing in Cooperatives Practices toward National Economic Recovery in the COVID-19 Pandemic Era." *Frontiers in Public Health* 10 (December 6, 2022). <https://doi.org/10.3389/fpubh.2022.963755>.
- Knežević, Mirjana. "Cooperative in the Modern Economic Environment." *Naucne Publikacije Drzavnog Univerziteta u Novom Pazaru. Serija B, Društvene & Humanisticke Nauke* 4, no. 1 (2021): 53–63. <https://doi.org/10.5937/NPDUNP2101053K>.
- Küpper, Herbert. "The Indonesian Constitution Read with German Eyes." *Constitutional Review* 7, no. 1 (May 31, 2021): 53. <https://doi.org/10.31078/consrev713>.
- KURNIAWAN, YOGA MUHAMMAD. "ADMINISTRASI KEUANGAN PENGERTIAN DAN RUANG LINGKUP KEUANGAN NEGARA," December 15, 2019. <https://doi.org/10.31219/osf.io/h4d7v>.
- Kusuma, Lalu Aria Nata, and Nawaz Syarif. "The Implications of Changes in the State Budget (APBN) through Presidential Instruction (Inpres) from the Perspective of Administrative Law." *Lex Journal: Kajian Hukum Dan Keadilan* 9, no. 2 (April 18, 2025): 199–218. <https://doi.org/10.25139/lex.v9i2.10047>.
- Leoni, Giulia, Alessandro Lai, Riccardo Stacchezzini, Ileana Steccolini, Stephen Brammer, Martina Linnenluecke, and Istemi Demirag. "Accounting, Management and Accountability in Times of Crisis: Lessons from the COVID-19 Pandemic." *Accounting, Auditing & Accountability Journal* 34, no. 6 (July 23, 2021): 1305–19. <https://doi.org/10.1108/AAAJ-05-2021-5279>.
- Lin, Lin. "Venture Capital in the Rise of Sustainable Investment." *European Business Organization Law Review* 23, no. 1 (March 17, 2022): 187–216. <https://doi.org/10.1007/s40804-021-00238-8>.
- Luo, Bingqiao, Zhen Zhang, Qian Wang, Anli Ke, Shengliang Lu, and Bingsheng He. "AI-Powered Fraud Detection in Decentralized Finance: A Project Life Cycle Perspective." *ACM Computing Surveys* 57, no. 4 (April 30, 2025): 1–38. <https://doi.org/10.1145/3705296>.

- Lyu, Bo, and Xiaohong Yu. "Corporate Compliance Programs and Audit Pricing – a Quasi-Natural Experiment in China." *Managerial Auditing Journal* 40, no. 6 (August 19, 2025): 825–51. <https://doi.org/10.1108/MAJ-08-2024-4428>.
- Melchior, Inga C., and Jens Newig. "Governing Transitions towards Sustainable Agriculture—Taking Stock of an Emerging Field of Research." *Sustainability* 13, no. 2 (January 8, 2021): 528. <https://doi.org/10.3390/su13020528>.
- Moh. Annand Ananda Saputra, Aryo Dwiariief Susetyo, and Rachmat Hidayat. "Eksistensi BPK Dalam Melakukan Pengawasan Keuangan Negara." *Mahkamah : Jurnal Riset Ilmu Hukum* 2, no. 4 (October 23, 2025): 96–108. <https://doi.org/10.62383/mahkamah.v2i4.1187>.
- Mueller, Benjamin. "Corporate Digital Responsibility." *Business & Information Systems Engineering* 64, no. 5 (October 12, 2022): 689–700. <https://doi.org/10.1007/s12599-022-00760-0>.
- Muraguri, Michael Macharia. "Effects of Women Enterprise Fund's Training on Capital and Labour Resources of Women Grocery Micro-Entrepreneurs in Thika Sub-County, Kenya." *International Journal of Innovative Research and Development* 10, no. 1 (January 31, 2021). <https://doi.org/10.24940/ijird/2021/v10/i1/APR19064>.
- Naili, Maryem, and Younès Lahrichi. "Banks' Credit Risk, Systematic Determinants and Specific Factors: Recent Evidence from Emerging Markets." *Heliyon* 8, no. 2 (February 2022): e08960. <https://doi.org/10.1016/j.heliyon.2022.e08960>.
- Nianty, Dara Ayu. "Risk Evaluation of the Use of Derivative Products in Financial Management Strategies." *Advances in Economics & Financial Studies* 3, no. 1 (January 31, 2025): 15–28. <https://doi.org/10.60079/aefs.v3i1.429>.
- Nichols, Carly. "Self-Help Groups as Platforms for Development: The Role of Social Capital." *World Development* 146 (October 2021): 105575. <https://doi.org/10.1016/j.worlddev.2021.105575>.
- Nobanee, Haitham, Fatima Youssef Al Hamadi, Fatma Ali Abdulaziz, Lina Subhi Abukarsh, Aysha Falah Alqahtani, Shayma Khalifa AlSubaey, Sara Mohamed Alqahtani, and Hamama Abdulla Almansoori. "A Bibliometric Analysis of Sustainability and Risk Management." *Sustainability* 13, no. 6 (March 16, 2021): 3277. <https://doi.org/10.3390/su13063277>.
- Noriega, Jomark Pablo, Luis Antonio Rivera, and José Alfredo Herrera. "Machine Learning for Credit Risk Prediction: A Systematic Literature Review." *Data* 8, no. 11 (November 7, 2023): 169. <https://doi.org/10.3390/data8110169>.
- Novak, Oksana, Oleksandr Melnychenko, and Oksana Oliinyk. "Improving the Regulation of the Derivatives Market as an Objective Prerequisite for Sustainable Development of the Global Financial System." Edited by A. Kwilinski. *E3S Web of Conferences* 307 (September 22, 2021): 02002. <https://doi.org/10.1051/e3sconf/202130702002>.
- Nurul Shahnaz Mahdzan, Rozaimah Zainudin, and Siew-Chan Yoong. "Investment Literacy, Risk Tolerance and Mutual Fund Investments: An Exploratory Study of Working Adults in Kuala Lumpur." *International Journal of Business and Society* 21, no. 1 (April 25, 2021): 111–33. <https://doi.org/10.33736/ijbs.3230.2020>.
- Putra, Angga Kiryaditama, and Sugimin Sugimin. "The Limited Scope of BPK Audit and Comparison with Other Supreme Audit Institutions." *Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara* 10, no. 1 (June 27, 2024): 67–86. <https://doi.org/10.28986/jtaken.v10i1.1389>.
- Quoc Trung, Nguyen Kim. "The Relationship between Internal Control and Credit Risk – The Case of Commercial Banks in Vietnam." Edited by David McMillan. *Cogent Business & Management* 8, no. 1 (January 27, 2021). <https://doi.org/10.1080/23311975.2021.1908760>.
- Ridwan, Rizky, Dede Riswandi, and Yudi Setia Rachmanda. "DETEKSI DINI KECURANGAN PADA PROGRAM KOPERASI MERAH PUTIH: ANALISIS KELEMBAGAAN DESA DAN IMPLEMENTASI MODEL SIPAK." *JURNAL EKONOMI PERJUANGAN* 7, no. 1 (June 19, 2025): 41–53. <https://doi.org/10.36423/jumper.v7i1.2260>.



- Sabbath, Erika L., Samantha M. McKetchnie, Kavita S. Arora, and Mara Buchbinder. "US Obstetrician-Gynecologists' Perceived Impacts of Post- Dobbs v Jackson State Abortion Bans." *JAMA Network Open* 7, no. 1 (January 17, 2024): e2352109. <https://doi.org/10.1001/jamanetworkopen.2023.52109>.
- Saz-Gil, Isabel, Ignacio Bretos, and Millán Díaz-Foncea. "Cooperatives and Social Capital: A Narrative Literature Review and Directions for Future Research." *Sustainability* 13, no. 2 (January 8, 2021): 534. <https://doi.org/10.3390/su13020534>.
- Schmitt, Marc. "Securing the Digital World: Protecting Smart Infrastructures and Digital Industries with Artificial Intelligence (AI)-Enabled Malware and Intrusion Detection." *Journal of Industrial Information Integration* 36 (December 2023): 100520. <https://doi.org/10.1016/j.jii.2023.100520>.
- Setiawan, Budi, Deni Pandu Nugraha, Atika Irawan, Robert Jeyakumar Nathan, and Zeman Zoltan. "User Innovativeness and Fintech Adoption in Indonesia." *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 3 (September 2021): 188. <https://doi.org/10.3390/joitmc7030188>.
- Settembre-Blundo, Davide, Rocío González-Sánchez, Sonia Medina-Salgado, and Fernando E. García-Muiña. "Flexibility and Resilience in Corporate Decision Making: A New Sustainability-Based Risk Management System in Uncertain Times." *Global Journal of Flexible Systems Management* 22, no. S2 (December 3, 2021): 107–32. <https://doi.org/10.1007/s40171-021-00277-7>.
- Shehata, Saleh M., Alaa M. Abdeljawad, Loqman A. Mazouz, Lamia Yousif Khalaf Aldossary, Maryam Y. Alsaeed, and Mohamed Nouredin Sayed. "The Moderating Role of Perceived Risks in the Relationship between Financial Knowledge and the Intention to Invest in the Saudi Arabian Stock Market." *International Journal of Financial Studies* 9, no. 1 (January 28, 2021): 9. <https://doi.org/10.3390/ijfs9010009>.
- Song, Cui Ling, Dongfang Pan, Arslan Ayub, and Binbin Cai. "The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence." *Psychology Research and Behavior Management* Volume 16 (February 2023): 535–48. <https://doi.org/10.2147/PRBM.S398450>.
- Subbagari, Saikiran. "Counter Measures to Combat Money Laundering in the New Digital Age." *Digital Threats: Research and Practice* 5, no. 2 (June 30, 2024): 1–13. <https://doi.org/10.1145/3626826>.
- Suryono, Ryan Randy, Indra Budi, and Betty Purwandari. "Detection of Fintech P2P Lending Issues in Indonesia." *Heliyon* 7, no. 4 (April 2021): e06782. <https://doi.org/10.1016/j.heliyon.2021.e06782>.
- Suta, I Made Gemet Dananjaya, I Gusti Agung Mas Prabandari, and Ni Luh Gede Astariyani. "Determining State's Financial Losses in Corruption: An Institutional Power and Constraint in Indonesia." *Lentera Hukum* 8, no. 1 (April 24, 2021): 95. <https://doi.org/10.19184/ejlh.v8i1.21923>.
- Syofyan, Efrizal, Dovi Septiari, Sany Dwita, and Mutia Rahmi. "The Characteristics of the Audit Committee Affecting Timeliness of the Audit Report in Indonesia." Edited by Collins G. Ntim. *Cogent Business & Management* 8, no. 1 (January 6, 2021). <https://doi.org/10.1080/23311975.2021.1935183>.
- Tay, Lee-Ying, Hen-Toong Tai, and Gek-Siang Tan. "Digital Financial Inclusion: A Gateway to Sustainable Development." *Heliyon* 8, no. 6 (June 2022): e09766. <https://doi.org/10.1016/j.heliyon.2022.e09766>.
- Thompson, Hannah R., Ursula Lochner-Bravo, Jonanne Talebloo, Jennie N. Davis, and Jennifer Falbe. "Accountability and Funding for State-Level School Physical Education and Recess Laws." *American Journal of Preventive Medicine* 69, no. 5 (November 2025): 108017. <https://doi.org/10.1016/j.amepre.2025.108017>.



- Tjahjadi, Bambang, Noorlailie Soewarno, and Febriani Mustikaningtiyas. "Good Corporate Governance and Corporate Sustainability Performance in Indonesia: A Triple Bottom Line Approach." *Heliyon* 7, no. 3 (March 2021): e06453. <https://doi.org/10.1016/j.heliyon.2021.e06453>.
- Towry, Robert K., and Antony S. Cheng. "Tensions between Fiscal Accountability Policy and Collaborative Management Implementation in State Wildlife Agencies." *Environmental Management* 65, no. 4 (April 17, 2020): 548–64. <https://doi.org/10.1007/s00267-020-01261-0>.
- Vaio, Assunta Di, Sohail Hasan, Rosa Palladino, and Rohail Hassan. "The Transition towards Circular Economy and Waste within Accounting and Accountability Models: A Systematic Literature Review and Conceptual Framework." *Environment, Development and Sustainability* 25, no. 1 (January 7, 2023): 734–810. <https://doi.org/10.1007/s10668-021-02078-5>.
- Velte, Patrick. "Archival Research on Integrated Reporting: A Systematic Review of Main Drivers and the Impact of Integrated Reporting on Firm Value." *Journal of Management and Governance* 26, no. 3 (September 25, 2022): 997–1061. <https://doi.org/10.1007/s10997-021-09582-w>.
- Waeterloos, Evert. "Introducing Collaborative Governance in Decentralized Land Administration and Management in South Africa: District Land Reform Committees Viewed through a 'System of Innovation' Lens." *Land* 10, no. 5 (May 18, 2021): 534. <https://doi.org/10.3390/land10050534>.
- Wahdi, Amirah Ellyza, Edward Sutanto, Althaf Setyawan, Yufan Putri Astrini, Nadhila Adani, Halimah Mardani, Nirwan Maulana, Anooj Pattnaik, Trihono Trihono, and Siswanto Agus Wilopo. "National Health Insurance Contribution to Family Planning Program Funding in Indonesia: A Fund Flow Analysis." *Gates Open Research* 7 (January 18, 2024): 105. <https://doi.org/10.12688/gatesopenres.14642.2>.
- Wahyudi, Sugeng, Tarmizi Achmad, and Imang Dapit Pamungkas. "Village Apparatus Competence, Individual Morality, Internal Control System and Whistleblowing System on Village Fund Fraud." *WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT* 17 (July 7, 2021): 672–84. <https://doi.org/10.37394/232015.2021.17.65>.
- Wambuii, Ngugi Damaris, and Thuo Anthony. "Aspects Influencing the Loan Uptake of Women Enterprise Funds by Small and Medium Enterprises in Thika Town, Kenya." *The International Journal of Business & Management* 9, no. 6 (June 30, 2021). <https://doi.org/10.24940/theijbm/2021/v9/i6/BM2106-012>.
- Wibowo, Hendro. "PENGEMBANGAN EKONOMI KREATIF DESA MELALUI BADA USAHA MILIK DESA (BUMDES) MENUJU KOPERASI BERBASIS IT." *An Nawawi* 1, no. 1 (April 26, 2021): 53–70. <https://doi.org/10.55252/annawawi.v1i1.9>.
- Wu, Jiajing, Kaixin Lin, Dan Lin, Ziyi Zheng, Huawei Huang, and Zibin Zheng. "Financial Crimes in Web3-Empowered Metaverse: Taxonomy, Countermeasures, and Opportunities." *IEEE Open Journal of the Computer Society* 4 (2023): 37–49. <https://doi.org/10.1109/OJCS.2023.3245801>.
- Yuhertiana, Indrawati, Maheran Zakaria, Dwi Suhartini, and Helmy Wahyu Sukiswo. "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence." *Sustainability* 14, no. 10 (May 11, 2022): 5839. <https://doi.org/10.3390/su14105839>.
- Zhang, Jie, and Zong-ming Zhang. "Ethics and Governance of Trustworthy Medical Artificial Intelligence." *BMC Medical Informatics and Decision Making* 23, no. 1 (January 13, 2023): 7. <https://doi.org/10.1186/s12911-023-02103-9>.
- Zhong, Hao, Dong Yang, Shengdong Shi, Lai Wei, and Yanyan Wang. "From Data to Insights: The Application and Challenges of Knowledge Graphs in Intelligent Audit." *Journal of Cloud Computing* 13, no. 1 (May 29, 2024): 114. <https://doi.org/10.1186/s13677-024-00674-0>.