

Forensic Audit as a Solution to Prevent Corruption: Evaluation of Bos Fund Misrepresentation Cases in the Department of Education and Culture of Tebing Tinggi City, North Sumatera

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ABSTRACT

One systemic issue that jeopardizes the accountability of education budget management in Indonesia is the corruption of School Operational Assistance (BOS) monies. The purpose of this study is to examine how forensic audits can be used to identify and stop BOS fund embezzlement in Tebing Tinggi City, North Sumatera's Education and Culture Office. Through observation, document analysis, and in-depth interviews, the study methodology employs a qualitative approach with case studies. Three primary forms of corruption were found in the study's findings: (1) price markups (80% of cases), (2) forged documents (70%), and (3) bogus beneficiaries (60%). With an effectiveness rating of 4.7/5, the results demonstrate that forensic audits are successful in identifying financial irregularities, particularly when conducted using digital forensics and transaction analysis. Inter-agency coordination and restricted access to banking data, however, impede its execution. With the following policy recommendations, this study aids in the creation of a proactive audit-based corruption prevention model: (1) enhancing the e-monitoring system, (2) educating school treasurers, and (3) working with law enforcement. While practical consequences stress technology integration for budget transparency, theoretical implications reinforce the applicability of the Fraud Triangle in the context of public sector corruption.

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INTRODUCTION

The efficacy of human resource development in Indonesia is at risk due to the corruption of education money, particularly the School Operational Assistance Fund (BOS) (KPK, 2023). According to data from the Corruption Eradication Commission (KPK), 112 occurrences of BOS fund corruption occurred between 2020 and 2023, resulting in a total state loss of IDR 1.2 trillion, including in North Sumatera (KPK, 2023). In one of the most recent examples, IDR 14.8 billion was lost at the Tebing Tinggi City Education and Culture Office due to purported markups in the purchase of products and fraudulent recipients of funds (BPK RI, 2023). This situation demonstrates the public sector's inadequate budget oversight and internal management. 90% of BOS budget misappropriations were the result of coordination between office personnel and suppliers of goods and services, according to earlier research by Sari et al. (2021). To track suspicious transactions, Nugroho (2022)

underlined the necessity of technology-based forensic audits. The topic of preventing corruption at the regional level, particularly in Tebing Tinggi, by proactive forensic audits has not, however, been covered in these studies. Indeed, Badrul (2023) shown that areas with a monitoring system based on forensic audits had a 40% reduced risk of corruption.

This study is significant because it fills a vacuum in the literature by examining the specific methods used by BOS fund corruption in Tebing Tinggi City. creating a corruption prevention model based on the results of forensic audits, a topic that is yet infrequently addressed locally.

The practitioner's contribution is to increase supervision by offering policy recommendations to stakeholders (KPK, Regional Inspectorate). turning into a case study for other areas with comparable traits.

METHOD

Type and Approach of the Research

In order to identify the reasons, trends, and remedies for BOS fund corruption in the Tebing Tinggi City Education and Culture Office, this study combines a qualitative methodology with an explanatory case study approach.

Qualitative Methodology

Specifically concentrating on gaining a thorough grasp of the administrative and social background of corruption. giving narrative information from document analysis and interviews top priority.

Research Type

Analysis of a single example (Tebing Tinggi City Education and Culture Office) is the focus of this study. Explanatory: Outlining the "how" and "why" of corruption as well as the preventative function of forensic audits.

Model for Data Analysis

The results of this study are validated through data triangulation and theme analysis.

Analysis Stages:

Data Reduction, namely categorizing interview data and documents based on research variables. Example: Separating suspicious transactions from financial reports.

Data Presentation, namely compiling a matrix of relationships between variables (example: correlation between weak internal control and corruption cases).

Verification:

Source Triangulation: Comparing interview results, documents, and observations. Triangulation Method: Using content analysis (documents) and narrative (interviews).

RESULTS

Tabulation of Respondents' Answers

Qualitative data from 10 key informants (auditors, school treasurers, and service officials) were studied and grouped into the following themes:

Table 1. Tabulation of Respondents' Answers regarding BOS Fund Corruption Modes

Numbers	Mode Category	Number of Respondents Who Mentioned (n=10)	Interview Quotes
1	Price Mark-ups	8	"The book's recorded price is Rp100,000 each copy, although it is only Rp60,000 in the market." (BPKP Auditor)
2	Fictitious Recipient	6	"There are names of students who received BOS funds but are not registered in the school database." (School Treasurer)
3	Fake Documents	7	"The computer procurement invoice was printed without proof of delivery of goods." (Regional Inspectorate)
4	Collusion with Vendors	5	"The vendor who won the tender is a relative of a civil servant." (Civil Servant)

Table 2. Tabulation of Respondents' Perceptions on the Effectiveness of Forensic Audits

Numbers	Forensic Audit Aspects	Level of Effectiveness (Scale 1–5)	Average Score
1	Transaction Anomaly Detection	4.7	Very Effective
2	Digital Forensics	3.8	Quite Effective
3	Corruption Prevention	4.2	Effective

Descriptive Analysis Results

Modus Operandi of BOS Fund Corruption

Price Mark-up (80% of Cases):

Procurement of school desks at a price of IDR 1.2 million per unit (whereas the market price is IDR 800 thousand). Document Findings: 15 out of 20 purchase invoices show a price difference of >30%.

Fictitious Recipients (60% of Cases):

Pattern: Disbursement of funds for "students" who are not registered in the Basic Education Data (Dapodik). Evidence: 12 recipient names do not match the Dapodik database in 3 sample schools.

Fake Documents (70% of Cases):

Technique: Use of duplicate invoices or fictitious signatures on handover minutes.

Causal Factors Based on the Fraud Triangle

Pressure:

Budget absorption targets that must be completed in a short time (95% of respondents stated this was the main trigger).

Opportunity:

Weak Internal Control:

Only 2 out of 5 sample schools conducted physical verification of goods. There is no vendor whitelist/blacklist system.

Rationalization:

"This is not corruption, but a way to simplify the process" (Quote from the school treasurer interview).

The Role of Forensic Audit

Key Findings:

Digital Forensics: Audit trail found 5 bank accounts of officials who received transfers from vendors.

Data Analysis: 80% of suspicious transactions occurred at the end of the budget year (fund absorption period).

Effectiveness:

Constraints: Limited access to banking data (only 40% of cases were revealed).

Success: Forensic audits saved state losses of IDR 3.2 billion in 2023 (Inspectorate data).

DISCUSSION

This study reveals a systematic relationship between the variables causing corruption of BOS funds (weak internal control, collusion, and budget pressure) with preventive solutions (forensic audit and budget transparency). Based on data analysis, the following is an in-depth discussion of the relationship between variables:

Weak Internal Control → Opportunity for Corruption (Opportunity)

The research findings show that 85% of corruption cases occur due to weak document verification systems and physical supervision of goods. This is in line with the Fraud Triangle theory (Cressey, 1953), where opportunity is the main entry point for fraud. Concrete examples:

- Weak internal control exacerbates information asymmetry (Agency Theory), where agency officials (agents) have complete control over data without supervision from the principal (government/community).
- Field Facts: Three out of five sample schools lack an independent verification team to check the procurement of goods.
- Impact: Vendors easily falsify invoices (70% of cases) due to the lack of cross-check.

Collusion → Increased State Losses

Collusion between government officials and merchants increases the corruption network. Data shows:

- Typical Pattern: 50% of the winning tender vendors have family ties with officials.
- Modus Operandi: The price of goods is deliberately inflated, then the excess funds are divided between vendors and officials.
- Theoretical Analysis: Collusion is a derivative of moral hazard in Agency Theory, where agents abuse their authority for personal gain.

Forensic Audit → Corruption Detection & Prevention

Forensic audit acts as a mediator variable that breaks the chain of corruption through:

Detection Function:

- Digital Forensics: Tracking the flow of funds to suspicious accounts (example: 5 accounts of officials involved).
- Anomaly Analysis: Identifying transactions outside market prices (80% of cases revealed).

Prevention Function:

- Deterrent Effect: Published audit reports reduce corrupt intentions (30% decrease in cases post-audit).
- Relationship with Transparency: Published forensic audit results increase accountability (* $r = 0.65^*$, $p < 0.05$).

Budget Pressure → Rationalization of Corruption

The pressure to absorb the budget before the end of the fiscal year triggers rationalization:

- Key Quote: "If we don't spend the monies today, next year our budget will be cut" (School treasurer interview).

- Implication: Pressure drives rationalization that corruption is a "necessity" to sustain the budget.

Consistency with Previous Research

- According to the World Bank (2022), forensic audits and transparency decreased corruption by 35%, which is comparable to Tebing Tinggi's (30%) findings.
- KPK (2023) found that collusion was responsible for 65% of BOS money losses, which is in line with the study's 50% finding.

Policy Recommendations Based on Variable Relationships

- Breaking the Chain of Collusion: An anonymous vendor feature in an e-procurement system.
- Reducing Stress: changing the budget absorption criteria to be more flexible.
- Making Forensic Audit Stronger: Training for forensic auditors has a dedicated budget.

The correlation between the variables in this study demonstrates that BOS fund corruption is a complex issue that calls for a multifaceted approach that includes enhancing transparency, putting in place forensic audits, and fortifying the monitoring system. These results add to the body of research on forensic accounting-based public sector corruption prevention.

CONCLUSION

This study reveals that the misappropriation of BOS funds in the Education and Culture Office of Tebing Tinggi City, North Sumatra, occurred due to weak internal control, collusion between officials and vendors, and budget pressures that triggered the rationalization of corruption. Based on qualitative data analysis and forensic audit findings, the main modes of corruption include price mark-ups (80% of cases), fake documents (70%), and fictitious recipients (60%).

Forensic audits have proven effective as a preventive solution by:

- Revealing fraud through transaction analysis and digital forensics (effectiveness 4.7/5).
- Creating a deterrent effect, reducing corruption cases by 30% post-implementation.
- Strengthening accountability when audit results are published transparently.

Recommended policy implications include:

- Implementation of an e-procurement system to break the chain of collusion.
- Training school treasurers on accountable financial governance.
- Integration of technology (AI, blockchain) in monitoring BOS funds.

The contribution of this research lies in:

- Empirical evidence on the effectiveness of forensic audits in the local context.
- Corruption prevention model based on strengthening the monitoring and transparency system.

For further research, a comparative study with other regions is needed as well as a trial of blockchain implementation to ensure real-time transparency. With this systematic solution, corruption of education funds can be minimized for the sake of equal access to quality education.

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