

## **Effectiveness of Substantive Audit Procedures on Cash and Financial Instruments: A Comparative Study of Jiwasraya and BPK Sulawesi**

Deby Arachel Arta Viola<sup>1</sup>, Nurul Latifa Azis<sup>2</sup>, Fricilya Orpi Putri<sup>3</sup>, Ita<sup>4</sup>, Muh Fadly<sup>5</sup> Nur Asliana<sup>6</sup>

<sup>1,2,3,4,5,6</sup>Ilmu Akuntansi, Fakultas Ekonomi Dan Bisnis, Universitas Negeri Makassar

### **ABSTRACT**

This study aims to analyze the effectiveness of substantive testing in detecting fraud within cash and financial instrument accounts by comparing two audit cases Jiwasraya and BPK Sulawesi. Employing a qualitative comparative case study approach, data were obtained from audit reports, official publications, and relevant secondary sources. The findings reveal that in the Jiwasraya case, substantive testing proved less effective due to weak risk assessment of investments and inadequate fair value testing. Meanwhile, in the BPK South Sulawesi case, the low effectiveness of substantive testing was mainly attributed to the audit's administrative focus. This study underscores the importance of enhancing professional skepticism and deepening substantive procedures to strengthen fraud detection in audit practices.

**Keywords:** substantive testing, audit, cash, financial instruments, fraud

**Corresponding author:** [deby.arachel@gmail.com](mailto:deby.arachel@gmail.com)

**How to cite this article:**

**History of Article:** Received: 2 November 2025. Revision: 10 November 2025. Published: 26 November 2025

DOI Prefix 10.32832/neraca

### **INTRODUCTION**

Financial statements serve as the primary medium for communicating financial information to both internal and external parties, forming the basis for economic decision-making (Utami, 2020). The reliability of financial statements largely depends on the processes of preparation and examination, as errors or fraudulent reporting can distort decision accuracy and diminish public trust in the reporting entity (Astuti *et al.*, 2021). In this context, auditing functions as an independent mechanism to evaluate the fairness of financial statements based on valid evidence and applicable criteria (Arens *et al.*, 2021). Among the key audit areas, cash and financial instruments receive particular attention due to their high liquidity and susceptibility to misuse. Substantive testing serves as the auditor's main procedure in detecting material misstatements or potential fraud in these accounts (Rahmatika & Yunita, 2021).

Previous studies have shown that the effectiveness of substantive testing is strongly influenced by the adequacy of audit evidence and the client's documentation readiness (Ferdyan Putri & Suryaningrum, 2024). Competent and relevant audit evidence allows auditors to identify indications of fraud more accurately (Shafira & Permatasari, 2023). Similarly, Firyal *et al.* (2024) emphasized that cash and receivables audits play a vital role in strengthening internal controls and promoting financial transparency. Consistent with this, Siswadi (2024) found that effective internal auditing in financial institutions can minimize cash misuse and improve operational security. Therefore, audits supported by robust evidence and effective substantive testing are essential for maintaining the integrity of financial reporting.

The prevalence of financial fraud cases in Indonesia underscores the urgency of implementing more effective substantive audit procedures. The Jiwasraya insurance scandal exemplifies weak oversight and insufficient early detection of misstatements in financial instruments, resulting in state losses amounting to trillions of rupiah (BPK, 2020). The audit findings revealed indications of investment value manipulation and financial reports that did not reflect the true condition of the company. This demonstrates that the audit evidence and substantive procedures applied were not optimal in identifying material misstatements in high-risk financial instruments.

In contrast, the findings of the Audit Board of Indonesia (BPK) in South Sulawesi Province indicated weaknesses in regional cash management, particularly in cash bookkeeping and reconciliation. As reported by *Jurnal8.com* (2021), these conditions reflect weak internal controls and inadequate

substantive audit procedures in the public sector. Whereas the Jiwasraya case arose from the complexity of financial instruments and investment governance, public sector audit issues are more closely related to limited compliance with auditing standards and weak oversight of operational cash management. This comparison highlights the distinct audit risk characteristics between the private and public sectors, both of which require effective substantive testing as a mechanism for early detection of errors and fraud.

This study contributes by analyzing and comparing the effectiveness of substantive testing in auditing cash and financial instruments across two sectors public (BPK South Sulawesi) and private (Jiwasraya). Unlike prior studies that primarily examined cash or internal audits in isolation (e.g., Siswadi, 2024; Firyal *et al.*, 2024), this research focuses on a comparative analysis of substantive testing applications across sectors to assess their effectiveness in preventing and detecting fraud. Theoretically, this study enhances understanding of substantive testing as an evidence-based fraud prevention tool, while practically, it offers recommendations for improving audit quality among both private sector external auditors and public sector government auditors.

## LITERATURE REVIEW

### A. Fundamental Concepts of Auditing

#### 1. Audit and the Fair Presentation of Financial Statements

An audit is defined as the process of collecting and evaluating evidence regarding assertions about financial information in order to determine and report the degree of conformity between that information and established criteria (Arens *et al.*, 2021). The fairness of financial statements is the primary objective of an audit, meaning that the statements are free from material misstatements, whether caused by error or fraud (Astuti *et al.*, 2021).

#### 2. Audit Risk

Audit risk (AR) refers to the risk that an auditor expresses an unqualified opinion when the financial statements actually contain material misstatements. The audit risk model is expressed as follows:

$$AR = IR \times CR \times DR$$

- a) Inherent Risk (IR): The susceptibility of an account balance to material misstatement, assuming no related internal controls. Cash and financial instruments typically have high inherent risk due to their liquidity and the complexity of fair value measurements.
- b) Control Risk (CR): The risk that a material misstatement will not be prevented or detected in a timely manner by the entity's internal control system.
- c) Detection Risk (DR): The risk that the auditor fails to detect a material misstatement that exists within an assertion. Detection risk is directly influenced by the effectiveness and extent of the substantive testing performed by the auditor.

### B. Substantive Testing in Auditing Cash and Financial Instruments

Substantive testing refers to audit procedures designed to detect monetary misstatements that directly affect the fairness of account balances in the financial statements (Rahmatika & Yunita, 2021). The effectiveness of this testing is crucial, particularly for accounts with high inherent risk.

#### 1. Objectives of Substantive Testing

The main objective of substantive testing for cash and financial instrument accounts is to ensure the following assertions:

- a) Existence: Cash or financial instruments actually exist as of the balance sheet date (e.g., through bank confirmations or cash counts).
- b) Completeness: All transactions and balances related to cash and financial instruments are properly recorded (e.g., reconciliation testing, cut-off testing).
- c) Valuation and Allocation: Cash is recorded at its correct amount, and financial instruments are presented at fair value in accordance with accounting standards such as PSAK 71, supported by adequate evidence. This assertion is particularly sensitive to fraud involving investments.
- d) Rights and Obligations: The entity holds legitimate ownership rights to the recorded cash and financial instruments

#### 2. Key Procedures for Cash and Financial Instruments

- a) Cash: Bank confirmation, bank reconciliation, physical cash count, and cut-off testing for cash receipts and disbursements.
- b) Financial Instruments: Confirmation with custodians or third parties, fair value testing (especially for Level 2 and Level 3 investments lacking active markets), and verification of investment transaction authorizations.

#### C. The Concept of Fraud

Fraud is defined as intentional misrepresentation or falsification within financial reporting. The Jiwasraya case exemplifies large-scale financial statement fraud involving financial instruments.

##### 1. Classification of Fraud

According to the Association of Certified Fraud Examiners (ACFE, 2021), fraud can be classified into three main categories:

- a) Financial Statement Fraud: Manipulation, falsification, or engineering of accounting data to create fictitious profits (*window dressing*), as seen in the Jiwasraya case.
- b) Asset Misappropriation: Involves the theft or misuse of cash or other assets, commonly found in several BPK findings related to regional cash management.
- c) Corruption: Includes bribery and illegal gratuities that may influence audit outcomes, such as the reported bribery cases involving BPK officials in South Sulawesi.

##### 2. The Fraud Triangle Theory

The fraud triangle theory posits that fraudulent behavior occurs when three elements coexist simultaneously (Christian & Visakha, 2021):

- a) Pressure: Motivation or incentive to commit fraud, such as profit targets or financial needs.
- b) Opportunity: Weaknesses in internal controls or organizational environments that allow perpetrators to commit and conceal fraud.
- c) Rationalization: The mental justification or moral reasoning that enables individuals to rationalize fraudulent acts.

#### D. Relationship Between Substantive Testing Effectiveness and Fraud Detection

##### 1. High Inherent Risk and the Need for Intensive Substantive Testing

Accounts such as cash and financial instruments carry high inherent risk (IR) due to their liquidity and valuation complexity. Consequently, detection risk (DR) must be maintained at a very low level. This condition requires auditors to perform detailed and comprehensive substantive testing, rather than relying solely on analytical procedures (Rahmatika & Yunita, 2021).

##### 2. Failure of Substantive Testing – Increased Detection Risk – Undetected Fraud

###### a) Jiwasraya Case:

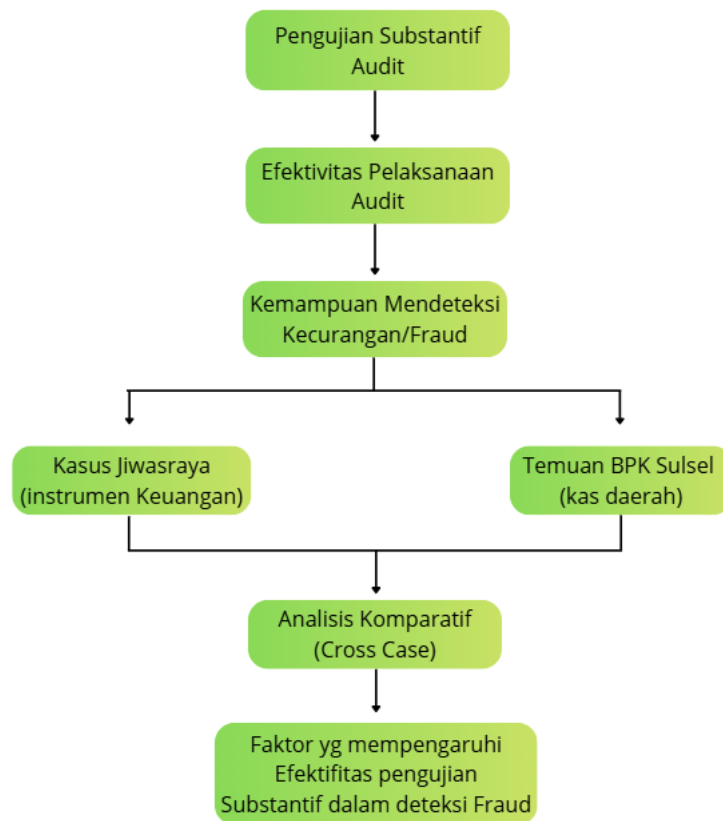
The failure of substantive testing occurred in the *valuation assertion* of financial instruments, where auditors did not adequately verify the fair value of investments. This weakness created an *opportunity* for management to commit financial statement fraud (Simangunsong et al., 2022).

###### b) BPK South Sulawesi Case:

The low effectiveness of substantive testing primarily limited to administrative checks led to the failure to detect regional cash misuse (*asset misappropriation*) and weaknesses in cash management systems (Ferdyan Putri & Suryaningrum, 2024).

The comparison between these two cases provides a basis for assessing which substantive procedures were effective or ineffective in mitigating inherent risk and detecting various forms of fraud across different sectors.

## E. Conceptual Framework



The conceptual framework of this study illustrates the relationship between substantive testing, audit effectiveness, and the auditor's ability to detect fraud. Substantive testing represents the core audit procedure used to obtain direct evidence regarding the fairness of account balances—particularly cash and financial instruments. The effectiveness of substantive testing is determined by the depth of audit procedures, the auditor's professional skepticism, and their understanding of fraud risk.

In this research, the two cases under comparison Jiwasraya and the BPK South Sulawesi findings serve as the analytical basis for evaluating how effectively substantive testing has been implemented. The Jiwasraya case represents the private sector, emphasizing audits of financial instruments, while the BPK South Sulawesi case represents the public sector, focusing on audits of regional cash management. The comparison highlights the factors that influence both the success and failure of auditors in detecting fraud through substantive testing.

## RESEARCH METHODOLOGY

### A. Type and Approach of the Study

#### 1. Type of Research

This study is classified as qualitative research employing a *comparative case study* design. The qualitative approach was chosen because it allows the researcher to explore complex phenomena that cannot be measured numerically, such as processes, procedures, and underlying factors influencing audit effectiveness. This approach is particularly relevant for analyzing differences in audit contexts between the private and public sectors (Astuti *et al.*, 2021).

#### 2. Comparative Case Study Design

The comparative case study design was applied to analyze and contrast two distinct audit cases that share a common core variable substantive testing. The cases compared are as follows:

- PT Asuransi Jiwasraya (Private Sector): Financial instrument audit, focusing on *valuation risk* and *financial statement fraud*.
- Audit Findings of BPK South Sulawesi Province (Public Sector): Regional cash audit, focusing on *existence risk* and *asset misappropriation*.

This comparison aims to identify fundamental similarities and differences in audit procedures that failed to detect fraud, thereby providing more comprehensive recommendations for improving substantive testing practices.

#### B. Data Sources

The study utilizes secondary data derived from publicly available documents and official publications. These include audit reports, regulatory statements, financial disclosures, and other relevant materials related to the two cases under examination.

**Tabel 1. Data Sources**

Case	Types of Secondary Data Collected	References
Jiwasraya	Audit Result Report (LHP) of the Supreme Audit Agency (BPK), official publications of the Financial Services Authority (OJK) and the Attorney General's Office, as well as investigative analysis from scientific journals related to investment value engineering.	BPK (2020); Simangunsong <i>et al.</i> (2022)
BPK Sulsel	Summary of the BPK LHP on the Regional Government LKPD, official BPK releases, and credible media reports detailing significant findings related to the administration and reconciliation of Regional Cash.	Jurnal8 (2021); Ferdyan Putri & Suryaningrum (2024)

#### C. Data Collection Techniques

The main techniques used in this study are Documentary Study and Literature Review.

1. Official Documentation:

The researcher collected, reviewed, and classified official government documents such as audit reports (LHP), court rulings, and press releases containing details of audit weaknesses, omitted procedures, and resulting financial losses in both cases.

2. Literature Review:

A critical synthesis was conducted on foundational auditing theories (Arens *et al.*, 2021), the concept of substantive testing (Rahmatika & Yunita, 2021), and fraud models (ACFE, 2021; Christian & Visakha, 2021). These references provided the theoretical basis for constructing the analytical framework.

3. Conceptual Validation (Triangulation):

Cross-verification was performed between official audit findings and interpretations presented in academic journals to ensure conceptual consistency and internal validity of the study's conclusions.

#### D. Data Analysis Techniques

Data were analyzed using a comparative descriptive-narrative approach, consisting of three main stages tailored to the nature of a comparative case study:

1. Data Reduction:

Relevant documents were selected and filtered to focus on key aspects—namely, weaknesses or failures in substantive testing procedures, violated assertions (existence, valuation, completeness), and revealed fraud schemes. This stage was crucial in narrowing extensive data into specific units of analysis (Astuti *et al.*, 2021).

2. Comparative Data Display:

Data from the Jiwasraya case and BPK South Sulawesi findings were presented in a comparative matrix or table. The matrix categorized findings by analytical aspects such as testing focus, procedural weaknesses, types of fraud, and overall effectiveness. This presentation facilitated both narrative and visual comparison, enabling systematic cross-case analysis (Simangunsong *et al.*, 2022).

3. Conclusion Drawing and Interpretation:

This stage represents the culmination of analysis, where comparative conclusions were formulated. The researcher examined why substantive testing failures occurred differently across sectors for instance, valuation-focused failures in Jiwasraya versus existence-focused failures in BPK South Sulawesi and identified underlying factors contributing to detection risk (DR)

weaknesses. The interpretation also highlighted the role of professional skepticism in each audit context, supported by strong documentary evidence (Ferdyan Putri & Suryaningrum, 2024).

## RESEARCH RESULTS AND DISCUSSION

**Tabel 2. Comparasion Column**

ASPECTS ANALYZED	THE JIWASRAYA CASE	BPK SULAWESI CASE
Audit Type	Financial Statement Audit (General Audit) followed by an Investigative Audit (BPK, 2020).	Regional Government Financial Statement Audit (LKPD) and Compliance Audit (Ferdyan Putri & Suryaningrum, 2024).
Tested Account	Financial Instruments (Stock Investments, Mutual Funds, and Securities) with a focus on Valuation assertions.	Cash in the Regional Treasury (Kasda) with a focus on Existence and Completeness assertions.
Focus of Substantive Testing	Procedures for determining the fair value of investments and verifying asset ownership ( <i>Rights and Obligations</i> ).	Regional Cash Reconciliation, Verification of Deposit/Withdrawal Evidence, and Physical Cash Examination ( <i>Cash Count</i> ) (Rahmatika & Yunita, 2021).
Weaknesses Found	Failure to thoroughly test the fair value of investments. Auditors accept management's assessments without sufficient skepticism, especially for illiquid stocks or those managed by affiliated parties (Simangunsong et al., 2022).	Weaknesses in cash management: incomplete transaction evidence (deposits/withdrawals), unsupported documentation, and discrepancies between the book balance and physical cash (Jurnal8, 2021).
Indications of Fraud	Financial Statement Fraud (fraudulent financial reporting through investment value manipulation) and Corruption. The modus operandi is marking up asset values.	Asset Misappropriation (misuse or embezzlement of regional funds) due to weak internal oversight and control functions.
Effectiveness of Substantive Testing	Very Low. The tests conducted failed to detect material misstatements and fraud at an early stage, resulting in losses only being uncovered after an investigative audit (Astuti et al., 2021).	Low. Testing is only effective in detecting administrative non-compliance but fails to prevent cash embezzlement supported by false documentation.
Causative factor	Lack of professional skepticism and management pressure to present profits, compounded by the complexity of financial instrument transactions.	The audit focus remains on procedural compliance, rather than a deep dive into fraud risks, as well as weak internal controls within the Regional Treasury implementation unit.

### Comparative Discussion of Findings

This comparative discussion aims to analyze the differences in the effectiveness of substantive testing between the Jiwasraya case and the audit findings of BPK South Sulawesi. The analysis focuses on audit assertion priorities, the application of professional skepticism, and how procedural weaknesses influence the effectiveness of detecting misstatements and fraud. Through this approach, the study highlights how private and public sector contexts shape audit strategies and the quality of audit outcomes, particularly concerning cash and financial instruments that carry distinct risk characteristics.

#### 1. Differences in Audit Assertion Focus

The two cases reveal fundamental distinctions in audit assertion emphasis. In the Jiwasraya case, the highest risk was associated with the Valuation Assertion, as financial instruments such as securities and equities carry subjective and easily manipulated fair values. The fraud scheme exploited this vulnerability by inflating the fair value to portray the company's financial position as healthy an area that theoretically falls within the critical scope of substantive testing (Arens et al., 2021).

Conversely, in the BPK South Sulawesi case, the audit focused primarily on the Existence and Completeness assertions related to physical cash and cash-equivalent transactions. Regional cash funds, often held in physical or near-cash form, are highly susceptible to asset misappropriation, where cash counts and reconciliations are the key substantive procedures to ensure these assertions (Rahmatika & Yunita, 2021).

#### 2. Failure of Professional Skepticism and Its Impact on Effectiveness

Although both cases demonstrate low effectiveness in substantive testing, the root causes differ across contexts:

##### a) Jiwasraya:

The audit failure reflected a lack of professional skepticism. Auditors overly relied on management-provided evidence (particularly fair value estimates) and did not perform more assertive substantive procedures, such as independent testing of underlying assets or third-party verifications. Modern auditing standards require such measures in high-risk situations to strengthen audit reliability (Simangunsong *et al.*, 2022).

##### b) BPK South Sulawesi:

The audit failure stemmed from an overly procedural and administrative focus. Substantive testing mainly reconciliations and document reviews was limited to detecting non-compliance, rather than uncovering the underlying misuse of assets. This indicates a high Detection Risk (DR) and a weakness in substantive procedures that failed to adequately address the inherent risks associated with cash management.

Overall, these findings reinforce that the effectiveness of substantive testing largely depends on the degree of professional skepticism exercised and the auditor's ability to tailor procedures to specific fraud risks within each account being tested (Ferdyan Putri & Suryaningrum, 2024; Astuti et al., 2021).

## CONCLUSION

The purpose of this study was to analyze the effectiveness of substantive testing in detecting fraud within cash and financial instrument accounts, through a comparative case study of Jiwasraya (private sector) and BPK South Sulawesi (public sector) findings.

Main Conclusion: The effectiveness of substantive testing was found to be low in both cases.

#### 1. Jiwasraya (Financial Instruments):

Substantive testing effectiveness was very low due to failures in testing the Valuation Assertion. This weakness stemmed from insufficient professional skepticism toward the manipulation of fair values, which facilitated financial statement fraud, exacerbated by the complexity of financial transactions (Simangunsong *et al.*, 2022; Astuti *et al.*, 2021).

#### 2. BPK South Sulawesi (Regional Cash Audit):

Substantive testing was ineffective because the audit approach was overly procedural and administrative. The testing failed to prevent asset misappropriation, even though the Existence Assertion was tested (Ferdyan Putri & Suryaningrum, 2024).

Overall, the findings confirm that the effectiveness of substantive testing relies heavily on the auditor's ability to tailor procedures to the inherent risk of each account and to apply a high degree of professional skepticism across both public and private audit contexts.

The comparative results indicate that audit failures do not merely arise from technical procedural weaknesses, but also from insufficient analytical depth and inadequate professional judgment concerning specific fraud risks. Hence, improving audit quality requires a paradigm shift from compliance-oriented auditing toward risk-based auditing that is adaptive to the complexity and dynamics of financial transactions across sectors.

This study provides important implications for audit practice in both public and private sectors. Auditors should strengthen the depth of substantive testing by aligning procedures with each account's inherent risk and complexity. Furthermore, maintaining strong professional skepticism is critical when assessing audit evidence, especially for accounts with a high fraud potential such as cash and financial instruments. The study also emphasizes the need to enhance auditor capacity through training on risk-based auditing and fraud detection techniques, ensuring that substantive testing effectively reflects the true financial condition of the entity being audited.

## REFERENCES

- Arens, A. A., Elder, R. J., & Beasley, M. S. (2021). *Auditing and assurance services: An integrated approach* (18th ed.). Pearson Education.
- Astuti, P. D., Sari, R. N., & Nugroho, R. (2021). Analisis efektivitas audit dalam mendeteksi kecurangan laporan keuangan. *Jurnal Akuntansi dan Keuangan Indonesia*, 18(2), 145–160.
- Badan Pemeriksa Keuangan Republik Indonesia. (2020). *Kerugian negara kasus Jiwasraya Rp16,81 triliun*. Majalah BPK Edisi 05 Vol. III Mei 2020.
- Ferdyan Putri, F., & Suryaningrum, D. H. (2024). Pengaruh efektivitas audit terhadap deteksi kecurangan: Studi pada auditor sektor publik. *Jurnal Akuntansi* '45, 5(2), 282–297.
- Jurnal8. (2021, Mei 17). *Temuan BPK pada Pemerintah Provinsi Sulawesi Selatan terkait pengelolaan kas daerah belum optimal*. Jurnal8.com. <https://www.jurnal8.com>
- Rahmatika, L., & Yunita, E. (2021). Analisis penerapan prosedur audit substantif terhadap efektivitas pengendalian kas. *Jurnal Ilmu Akuntansi dan Bisnis*, 16(1), 45–56.
- Firyal, K. P. M., Nasdian, A., Hanifah, A. S., Oktavia, R. D., & Lathifah, B. A. (2024). Ruang lingkup dan pengaruh audit kas, setara kas dan piutang terhadap kinerja perusahaan. *Journal of Sharia Economics Scholar (JoSES)*, 2(4), 64–67. <https://doi.org/10.5281/zenodo.14647268>
- Shafira, S. S., & Permatasari, C. L. (2023). Pendeteksian kecurangan (fraud) laporan keuangan oleh auditor eksternal melalui bukti audit. *Jurnal Ilmu Ekonomi dan Sosial Unmus*, 5(2), 498–506.
- Siswadi, & Najihah, W. A. (2024). Audit internal (kas dan teller) pada lembaga keuangan perbankan. *AL Maqashid: Journal of Economics and Islamic Business*, 4(1), 78–83. <https://doi.org/10.55352/maqashid.v4i1>
- Utami, W. (2020). *Analisis faktor-faktor yang mempengaruhi kualitas laporan keuangan pemerintah daerah*. Universitas Airlangga Institutional Repository.
- ACFE. (2021). Report to the Nations: 2020 Global Study on Occupational Fraud and Abuse. Association of Certified Fraud Examiners.
- Christian, N., & Visakha, B. (2021). Analisis Teori Fraud Pentagon dalam Mendeteksi Fraud pada Laporan Keuangan Perusahaan yang Terdaftar di Bursa Efek Indonesia. CoMBInES-Conference on Management, Business, Innovation, Education and Social Sciences, 1(1), 1325–1342.
- Simangunsong, R. H., Wibisono, Y., & Haryanto, T. (2022). ANALISIS KASUS PT. ASURANSI JIWASRAYA (PERSERO) DENGAN TEORI DASAR FRAUD. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, 6(