

# CAATs for Audit Sample Determination and Misstatement Detection

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**Abstract.** Use of computer-assisted audit techniques (CAATs) as part of audit practice in the era of technological development. CAATs can be used by auditors to simplify work that requires them to process large amounts of data so that they can save time and costs and increase efficiency. Determining audit samples using CAATs is expected to increase the detection of misstatements in the financial statements of the business entities being examined. This research aims to determine the implementation of CAATs in determining audit samples for detecting misstatements in financial reports through qualitative research methods using a literature study. The research results show a positive correlation regarding implementing CAATs in determining audit samples to detect misstatements in financial reports. This research concludes that using CAATs by auditors in conducting sample tests and detecting misstatements in inappropriate financial reports will improve audit quality.

**Keywords:** Audit Samples, CAATs, Misstatement Detection

## 1 Introduction

The audit of financial statements aims to assure the reliability, confidence, and fairness of the reports presented under applicable reporting standards [1]. Misstatements in financial statements can be caused by fraud (Fraud) or errors in reporting presentation [2], [3]. These misstatements will undoubtedly financially impact business entities [4].

The financial statement audit process must be able to detect errors and identify misstatements [5]. audit procedures include audit planning, execution, and evaluation of audit results and reports when the audit execution process requires control tests and substantive procedures to obtain audit evidence [6].

The auditor's substantive testing requires a sample to ensure that the balance in the account or transaction is free from material misstatement. The population of accounts or transactions is usually large and takes a long time to test, so it is necessary to determine the proper sample to detect it [6].

Technological developments bring changes in audit practice. The use of technology in auditing, known as computer-assisted auditing or Computer Assisted Audit Techniques (CAATs), makes it easier for auditors to perform audit work to increase effectiveness, accuracy, and timeliness in completing work [7], [8], [9].

Using CAATs in substantive testing can facilitate auditors in selecting data in the audited entity's information system, conducting in-depth analysis, and automatically determining audit samples for further examination [10]. The challenges in determining the audit sample using CAATs must be overcome by auditors in substantive testing.

## **2 Literature review**

### **2.1 What are CAATs**

Computer-Assisted Audit Techniques (CAATs) are data collection methods that automate data analysis and audit processes using computer software. Computer Assisted Audit Techniques (CAATs) can be defined as an application computer program that has been used to improve the efficiency and effectiveness of an audit process through automation of previous manual procedures, expansion of the scope of audit coverage, or creation of new audit procedures [11].

Sayana [10] classifies CAATs into four categories: Data analysis software, network security evaluation software/ utilities, OS and DBMS security evaluation software/ utilities, and software and code testing tools.

### **2.2 Disclosure of Misrepresentation**

The Indonesian Institute of Public Accountants (IAPI) issues auditing standards (SA) that must be complied with in conducting audits [12]. According to Auditing Standard (SA) 200, the objective of a financial statement audit is to increase confidence in the financial statements by expressing a material financial statement audit opinion following applicable financial reporting standards. According to SA 450, misstatement is a difference between the reported number, classification, presentation, or disclosure of an element of the financial statements and the number, classification, presentation, or disclosure required to present the element following the applicable financial reporting framework. Misstatement can occur from error or fraud. In disclosing misstatements, the auditor must pay attention to materiality within the examined entity. Materiality is determined during the audit to assess the risk of misstatement and the extent of follow-up audit procedures [1].

According to SA 530, the purpose of sampling is to provide a sufficient basis for the population to conclude the source of the sample selection. Samples are selected based on two methods: Judgmental sampling, which is selected based on the auditor's experience, and Statistical sampling, where the sample is randomly selected and evaluated with probability theory. The auditor determines the sample based on four parameters: confidence level in the population's absolute value, materiality, and expected error rate [6].

The use of CAATs when testing this sample can facilitate auditors in selecting data from samples made by stating criteria in a computer program [13]. According to SA 315, auditors must be able to detect and assess the risk of material Misstatement of financial statements by understanding the entity's conditions, environment, and internal control. Risk assessment procedures include asking management for information needed to determine the materiality risk and analytical procedures, observations, and inspections.

The use of CAATs assists auditors in more in-depth testing of transactions, which is useful when auditors decide to modify the extent of testing to detect risks of material Misstatement of electronic transactions or account files [14]. The risk detection can be done by selecting transactions in the file and then selecting transactions with specific criteria or by testing the population of a predetermined sample.

### **2.3 Challenges of using CAATs**

The use of CAATs presents many challenges from both a technical and non-technical perspective. The International Forum of Independent Audit Regulators (IFIAR) provides four main challenges faced, including Increasing audit complexity, which impacts the skills, practical experience and expertise required in audit teams; challenges for audit teams to understand and explain how the technology works and whether the conclusions reached or outputs provided by the technology are reliable, over-reliance on tools that apply less professional skepticism, and ensuring engagement teams have adequate training and knowledge on the use of the CAATs software used [15].

In developing countries like Indonesia, a lack of awareness, education, resources, and government support hinders the successful implementation of CAATs [16], [17], [18]. Transitioning from traditional audit methods to CAATs requires overcoming negative attitudes and skepticism and addressing issues such as delays in auditor appointment and underutilization of continuous audits [19]. Despite these challenges, CAATs can improve fraud detection and increase audit efficiency.

## **3 Research Methods**

This study is a qualitative research using a literature study. A literature study systematically identifies reviews, and synthesizes literature relevant to a research topic [20]. Literature study is a systematic process of identifying, reviewing, and synthesizing literature relevant to a research topic [21]. The literature study helps identify theories, frameworks, and concepts relevant to the research topic. Researchers connect each variable using pre-existing research and conclude the relationship between each research variable.

## **4 Results and Discussion**

Using CAATs can increase the effectiveness of determining directed audit samples and focus on the risk of misstatement. The use of CAATs by the auditor in determining the sample used in substantive testing can make data processing faster and more directed and save time [22]. CAAT usage can increase effectiveness so that auditors can focus more on revealing the risk of misstatement.

CAATs can improve the accuracy of error detection compared to manual audit methods.

Data analysts have proven that using computer software in data analysis increases error detection accuracy compared to manual audit methods. The program contained in the software has been designed to minimize the risk of detecting errors in the audit process. Unlike a manual audit process, computer auditing can also cut costs [23].

The application of CAATs in disclosing misstatements can assist auditors in more in-depth testing of transactions, which is useful when auditors decide to modify the breadth of testing to detect risks of material misstatement. The use of CAATs in audits of financial statements can increase effectiveness, reliability, and accuracy. When auditors use CAATs to determine the audit sample in substantive testing of financial statements, they find it easier to detect the risk of material misstatement in the financial statements of the entity [1], [24].

## 5 Conclusion

Implementing computer-assisted audit techniques (CAATs) by auditors to determine audit sample testing and misstatement detection provides convenience in auditing the entity's financial statements. The auditor's knowledge and skills in using CAATs are indispensable in the audit practice. Proper implementation of CAATs in financial statement audits can improve audit quality.

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