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Analytics software: A brave new world in auditing

Analytical software tools will never fully replace auditors, but they can help auditors do their work more efficiently and effectively. Here's an overview of how data analytics — such as outlier detection, regression analysis and semantic modeling — can enhance the audit process.

AUDITORS BRING EXPERIENCE AND PROFESSIONAL SKEPTICISM

When it's appropriate, instead of manually testing a representative data sample, auditors can use analytical software tools to compare an entire data population against selected criteria. This process quickly identifies anomalies hidden in large amounts of data that can be tagged for further examination by auditors during fieldwork. Analytical software tools can test various kinds of data, including accounting, internal communications and documents, and external benchmarking data.



If unusual transactions or trends are found, auditors will investigate them further using the following procedures:

- Interviewing management about what happened and why,
- Conducting external research online and from industry publications to independently understand what happened or to verify management's explanation, and
- Performing additional manual testing procedures to determine the nature of the anomaly or exception.

In addition, confirmations and representation letters from attorneys, customers and other external parties may corroborate what management says and external research reveals.

AUDIT FINDINGS MAY REQUIRE ACTION

Often, auditors conclude that irregularities have reasonable explanations. For instance, they may be due to an unexpected change in the company's operations or external market conditions. If a change is expected to continue, it may alter the auditor's expectations about the company's operations going forward. Sometimes, a change discovered while auditing one part of the financials may affect audit procedures (including analytics) that will be performed on other accounts.

Alternatively, auditors may attribute some irregularities to inadvertent mistakes or intentional fraud schemes. Auditors usually communicate with the audit committee or the company's owners as soon as possible if they discover any material errors or fraud. These irregularities might require adjustments to the financial statements. The company also might need to take action to mitigate financial losses and prevent the problem from recurring.

For example, the controller may need additional training on recent changes to the tax and accounting rules. Or management may need to implement additional internal control procedures to safeguard against dishonest behaviors. Or the owner may need to contact the company's attorney and hire a forensic accountant to perform a formal fraud investigation.

AUDIT SMARTER

Today, companies generate, process and store massive amounts of electronic data on their networks. Increasingly, auditors are using analytical tools on this data to conduct basic audit procedures, such as vouching transactions and comparing data to external benchmarks. This frees up auditors to focus their efforts on complex transactions, suspicious relationships and high-risk accounts. [Contact us](#) for more information about how our auditors use analytical software tools in the field.