

Automated risk discovery:

What it is, and how firms
can achieve it

A look at what's inside

Introduction.....	1
State of the industry	1
Auditor	2
The role of the auditor	2
The audit sector has to evolve to stay relevant.....	2
Automation & risk discovery	3
Introducing automation and risk discovery	3
So, what is risk discovery?	3
What do we mean by automation?	4
Audit technology today	5
Robotic Process Automation (RPA)	5
Machine learning	5
Artificial intelligence (AI).....	5
Example software tools	6
The future of audit, technology, and their budding relationship	7
What you can do.....	8
What accounting firms can do today	8
Conclusion	9

Introduction

State of the industry

The audit industry has faced a challenging time over the last decade and more. The onset of the global financial crisis led to the media, policymakers, and the general public questioning how audits were signed off for financial institutions that were implicated in the fallout.

More recently, there have been several high-profile cases of audit failure, both in Europe ([the collapse of Wirecard in 2020](#)) and in North America ([the 2017 audit of Wells Fargo, which failed to identify millions of fraudulent customer accounts](#)).

Many of these failures can now be mitigated by emerging technology that overcomes limitations from manually processing data and the risk of human error. The audit industry has an opportunity to modernize and rebuild trust. Incorporating new AI and automation tools can help ensure that the sector is fit for purpose for the next **100 years**.



Auditor

The role of the auditor

Finance professionals completing audits are under pressure to produce and sign off quality audits and review controls and risks effectively for clients.

Audits are becoming increasingly time-sensitive as the industry comes under continued fee pressure from clients and growing expectations from society as whole. Jobs are often understaffed, creating a risk that overworked auditors will make more errors.

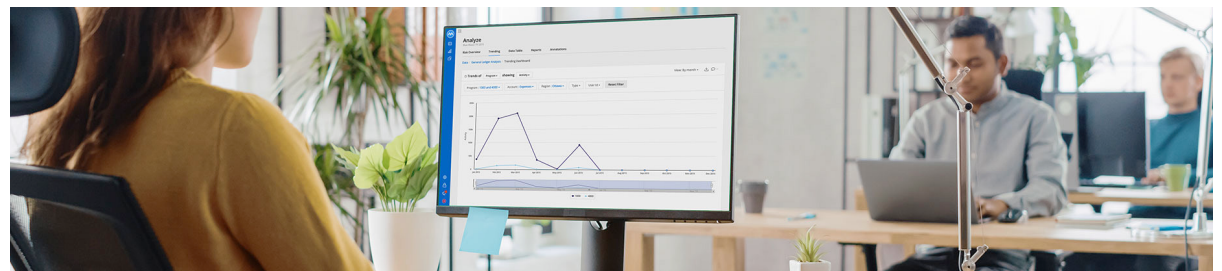
Many underlying processes and workflows completed by auditors are still manual and require analyzing paper audit trails and trawling datasets for single transactions. This is inefficient, and new technology tools allow for audits to be completed faster and more efficiently through a new data-driven approach, superseding the old way of doing things. Many firms seem to be thinking “if it ain’t broke, don’t fix it”, rather than looking for ways to drive growth and value through innovation.

The audit sector has to evolve to stay relevant

External audits need to innovate to solve audit quality issues alongside whilst maintaining audit quality expected by a demanding client base.

Technology is likely to help solve many of these issues by automating many existing processes such as scanning reams of transactions to identify anomalies for testing and avoid the mindless ticking often conducted on low risk transactions.

Additionally, we are increasingly moving towards a digital-led economy, with businesses generating exponential volumes of data and transactions. This volume makes it increasingly harder for auditors to complete assignments manually, on time, and to budget.



Automation & risk discovery

Introducing automation and risk discovery

While the concepts of the automation of financial audits and time-saving risk assessments are likely to be familiar to forward-thinking accountants and auditors, risk discovery can provide significant value-adding benefits and increase audit quality.

So, what is risk discovery?

Risk discovery takes the data-driven audit to the next level by going beyond journal entry testing and digitizing archaic half-century-old audit workflows by analyzing the output of all company data, rather than being restricted just to a sampling approach. This exceeds the role of a traditional auditor and increases the breadth of their work, with jobs often being completed faster than standard audits.

It uses technology to analyze and process a variety of key accounting datasets in their entirety. Adoption of such techniques across general ledger, accounts payable, and accounts receivable ledgers is accelerating today. Further datasets are being added every year.

Being able to aggregate large volumes of data at speed from multiple providers identifies risks within individual sources, as well as from overlaying them on top of one another.

Risk discovery tools use AI to generate insights from business rules, machine learning and statistical methods. [This combined approach is ten times more likely to identify fraud in financial data in comparison to rule-only data analytics methods.](#)

Overall audits are performed better by pinpointing areas of concern, but risk discovery also has many additional benefits. This might be the identification of process problems for clients to finetune their businesses on a day-to-day basis, but it is also the ability for the auditor to breeze through low risk areas of their audit. These improvements can vary depending on the output of risk discovery audits but often include better controls and reviews.

Risk discovery flags unusual values, outlier cash inflows, and outflows (i.e., an expense account with credit entries). This helps financial controllers perform their jobs better by singling out process improvements and unusual transactions often ahead of time and acting as an early warning sign. Additionally, low-risk areas are also identified, meaning controllers only focus their efforts on those areas of the accounts, causing the most significant concern.

Section 2:

Automation & risk discovery

Risk discovery is shaking up the audit profession by raising quality standards and the value of assignments for clients by providing insights that show them how to improve their overall businesses rather than just fulfilling regulatory requirements.

Large-scale adoption of AI driven risk discovery is accelerating, and it will soon be necessary for audit firms to remain competitive, retain clients, and attract new ones. Audit firms should take action now to keep up with the changing pace of the industry and deepen the relationships they have with clients. It is possible that this could lead to cross-selling further opportunities from audit firms becoming more embedded within their client's businesses.

As well as raising standards, risk discovery is changing the skill set of auditors. Future professionals are equipping themselves with data analysis and forensic skills, alongside developing their soft skills (such as empathy and communication skills), which can strengthen client relationships due to time saved from automation from risk discovery.

The reliance on machine learning within audits will present audit as the career choice for finance professionals who wish to learn this new skill set. This may also result in auditors remaining in the profession for the longer-term rather than doing their training and moving on to finance roles in industry.

What do we mean by automation?

Automation is a catch-all term encompassing various technologies, which each have their own unique benefits to increase efficiencies of repetitive and programmable tasks.

At its core, automation can replace manual tasks undertaken by auditors, such as manual vouching. As well as being faster, there is less chance of errors due to eliminating the risk of humans entering data incorrectly due to being fat-fingered or failing to spot outlier transactions in large data sets.

In the context of risk discovery in audit, automation uses many different technologies to perform rote tasks previously completed manually by auditors. It augments their work to provide additional analysis that previously has not been possible.

Audit technology today

Robotic Process Automation (RPA)

RPA automates tasks by working with existing business applications (i.e., Excel) to extract or process data. It replicates existing audit workflows, as opposed to creating new processes from scratch. Typically, these will be work that can be performed with a clear set of instructions or can then be easily programmed as a sequence for an RPA robot to follow. For audit, this includes performing routine tasks such as extracting data from documents, performing calculations, and checking for completeness of data. Before the development of RPA, these types of tasks may have been outsourced by auditors. RPA requires minimal programming skills and IT expertise, so it is relatively easy to set up but will likely require the input of IT departments and auditors.

Machine learning

Machine learning is often referred to as a more “intelligent” form of technology than RPA. It uses algorithms to learn the patterns in data, identify correlations and make predictions, allowing it to automate and enhance decision making processes. Machine learning uses complex algorithms to scan financial transactions within audits and model them against assumptions and potential risks.

It identifies correlations and looks for line items and keywords on documents, which may demand greater scrutiny from auditors. For example, this includes reviewing key company documents such as leases and sales contracts, as well as journal testing by unearthing those with questionable keywords (i.e., “cash”) and those with an unusual pattern (i.e., a large volume at year-end posted just below the materiality threshold).

Artificial Intelligence (AI)

AI takes audit automation to the next level, with software tools exhibiting a form of human intelligence. Unlike RPA and Machine learning, AI tools bring levels of automation to the forefront of what auditors are already working on as opposed to them needing to spend time and resources learning how to code and work with developers. This allows auditors to benefit from AI without tools having to be programmed explicitly.

Section 3:

Audit technology today

Example software tools

There are already several tools on the market which allow auditors and finance professionals to benefit from these types of automation to increase the quality of audits alongside finance departments.

Many organizations are starting to move away from Excel and Google Docs by incorporating analytics tools such as Microsoft BI and Qlik Sense to automate process-led spreadsheet work. Common user cases include monitoring KPIs through business dashboards and generating queries (i.e., breaking down trends across sales data) to further insights. This category of vendors uses AI-powered natural language interaction to query data by typing queries to chatbots or speaking directly to software.

[The pharmaceuticals giant GSK has used analytics tools in Excel to drastically reduce the time it takes their Indian subsidiary to produce monthly reports so that month-end could be achieved in two days instead of five.](#)

Leading RPA tools include Ui Path, Automation Anywhere, and Blue Prism. A handy and user-friendly feature of Ui Path is UiPath Studio which allows users to visually record processes that can be automated through a drag and drop interface. In finance departments, RPA is used for mass volume everyday finance tasks such as reconciling bank statements and scanning invoices. [Yapi Kredi, the 3rd largest bank in Turkey, has used Ui Path to automate 137 processes, including credit card transactions needing to be defined both within their core banking system and Visa/Mastercard systems.](#)

AI software for audit is coming from a few places, such as MindBridge and the Big 4 firms. Mindbridge allows auditors to benefit from AI automation by pinpointing risk areas across 100% of transactions, fully viewable within an interactive dashboard without any coding ability being required. This increases the ability of auditors to find errors and fraud ten times when compared to rules-only data analytics methods. Dixon Hughes Goodman LLP (DHG), a top 20 US-based accounting firm, adopted Mindbridge to increase the efficiency of their audits. [This has led to the firm's auditors spending up a third less time on journal entry testing, with saved time being used to evaluate results and deepen client engagement by asking more insightful questions.](#)

Section 3:

Audit technology today

The future of audit, technology, and their budding relationship

Audit assignments are moving towards mainstream adoption of automation technologies to improve and reengineer the scope of work. However, there is still a split between those who are seizing the opportunity to embrace tools to redefine engagements and those still sticking to outdated paper-based workflows. Some of this resistance may be due to audit practices not being incentivized to change their ways if they can still benefit from a stable client base, with partners coming up to retirement age. Additionally, new technology or a need for busy practitioners to educate themselves about its benefits can cause resistance.

As time goes on, risk discovery tools will likely create further opportunities to revolutionize audits, redefine their scope, and identify risks more efficiently. Over the next ten years, all existing manual audit tasks will likely be replaced with assurance techniques reliant on AI and machine learning. As execution by humans for these workflows is not value-adding, time-consuming, and has the potential to generate errors, there is an opportunity for audit to reinvent itself leveraging these technologies.

In addition, wider adoption of machine learning and AI will likely result in new areas of risk being uncovered for companies, enhancing the sustainability of audit and making audit failure increasingly rare. The significant time saved from using risk discovery and automation tools can either be used for firms to tender audits at more competitive price points or can instead be used to provide more value to clients and society as a whole.



Section 4:

What you can do

What accounting firms can do today

As there are already many audit and finance tools (i.e., Mindbridge, Microsoft BI, and UI Path) on the market, accounting firms can take tangible actions to benefit from improving and redefining their audit service line.

To incorporate these tools, firms will need to go through an exercise in change management. This is an exercise that explains the process of organizational change to improve performance and identify new opportunities.

Change management needs to be carefully controlled and often requires stakeholders at every level of the organisation to engage with the process. Firms need a vision, plan, skills and resources to land the change effectively.

It is imperative to give change management the attention and time it deserves so stakeholders in firms understand the impact that this will have on their roles and generate buy-in at all levels of the organization.

There may be some resistance from certain employees as many believe that the status quo is easier to maintain.

Having a technology champion at management level can be an effective way of articulating the benefits of automation tools from the top-down of an organization. Assigning this role to a recently promoted senior staff member is likely to effectively motivate them to complete the change management exercise. This individual should communicate the values automation adds to audits to clients and stakeholders within the firm.

While risk discovery can identify new value-adding focus areas outside the scope of traditional audit assignments, in the first instance, auditors should use these tools to facilitate their existing audit methodologies. Undertaking this approach will allow firms to meet the obligations of regulators and make the transition relatively simple for audit staff. Examples include using software to identify transactions above the materiality threshold. As clients and staff become comfortable with these new tools and can see their benefits, new applications of risk discovery can then be rolled out.

Conclusion

We are at the juncture of huge changes within the audit industry. Mass adoption of audit automation tools and a shift to risk discovery led assignments will significantly reduce audit failures alongside audits unearthing new insights for clients to manage risk better and finetune their businesses.

Audit assignments will also be more efficient, being completed in a shorter time, with staff spending less time on manual audit tasks and more time on data analysis and client engagement.

Ultimately these changes will benefit auditors, clients, and broader society, so firms should consider incorporating a tool like Mindbridge today.

