



# Internal Audit & Data Analytics



# Internal Audit & Data Analytics

## Introduction



As more companies embrace digital transformations and big data, Internal Audit functions must keep pace. Your starting point is data analytics. However, many Internal Audit functions are not realising the well known benefits of data analytics.



### Why use Data Analytics

#### Moving beyond the role of traditional assurance provider

Boards, Audit Committees and Senior Executives now expect it. No longer do these stakeholders require their Internal Audit function to be a traditional assurance provider, they expect a more proactive Internal Audit function that is a trusted adviser to the business, whilst maintaining independence, and providing value and insights.

By capitalising on the wealth of data now available both from internal and external sources, Internal Audit functions can provide even greater assurance and added value insights not previously possible.

Top performing Internal Audit functions have already adapted their processes and are now data and technology focused having invested significantly in their skillset and technological tools to help move into this adviser role.

Advanced analytics and automation can enable Internal Audit functions to tackle high volume process audits with a higher level of precision and provide greater risk coverage.

We see across our clients that the engaged stakeholders are receiving more useful business centric results from audits, being completed with less resources and in shorter times.



### Where do I begin

#### Take the first step and start small

Firstly, note that if you have not yet started you are not alone. Many Internal Audit functions have yet to fully embrace data analytics. Our experience across the industry is that most Internal Audit functions, outside of the largest financials, have struggled to get past Stage II or III of the 'KPMG Internal Audit Data Analytics Maturity Model' outlined on page 3.

The most important thing is to start. Recognise there is no one size fits all when it comes to data analytics. You do not need data scientists or dedicated resources to take your first step.

- Start small
- Pilot a few concepts
- Get comfortable using data
- Demonstrate quick wins

Most organisations start with using data analytics in fieldwork, helping select samples and reporting.

Know that the path to maximising data analytics is not easy and even the best performing Internal Audit functions can experience resistance at first. We recommend not to try and deploy data analytics across the entire lifecycle at first but it should be the end goal.

Set realistic goals with your stakeholders. Not all Internal Audit functions have the required scale or time to dedicate to building up data analytic expertise, have dedicated teams for data analytics or access to advanced tools as required. This is understandable but problematic. Start and continue to build over time.

# Internal Audit & Data Analytics



## Internal Audit Data Analytic Trends

### The time is now for Internal Audit to start its modernisation journey

Some current and emerging trends we see across organisations:

- Internal Audit planning and fieldwork is becoming more data driven.
- The business is creating more data and in turn more data is available to Internal Audit.
- Larger Internal Audit functions are creating central data analytic roles.
- Increasing pace of digital upskilling of Internal Audit staff.
- Increased automation and continuous auditing and monitoring.
- Long term internal audit strategies more focused on data analytics.
- Greater use throughout the lifecycle and not just on one phase of the lifecycle.
- Data use resulting in greater risk coverage and a move away from a control central view to a flexible and proactive risk based approach.

Repeatable and sustainable data analytics and continuous monitoring and auditing processes remain the goals for most Internal Audit functions and senior stakeholders, however most organisations are yet to implement these goals. While some Internal Audit functions currently use data analytics for planning, scoping, and the execution of audits, it is unstructured and used on an ad-hoc basis. Very few organisations have adapted their Internal Audit methodology for data analytics including a transformation of how audits are planned, executed and reported.



## The Challenges

### Each stage of your data analytics journey comes with its own set of challenges

The following are common challenges we see across Internal Audit functions:

- The business not providing access to the required datasets.
- Internal Audit functions who do not have the required skillset to perform data analytics.
- Disparate IT systems with different data formats.
- Incomplete data sets and inconsistent data quality.
- Data privacy/security concerns of the business.
- Determining and establishing consensus on objectives and success criteria.
- Measuring and demonstrating success.
- Workflow around exception resolution and managing volumes of exceptions.
- Managing the impact of data analytics, continuous auditing and continuous monitoring processes on auditors and business process owners.
- Identifying the right internal and external resources to support.
- Agreeing which technology is fit for purpose.
- Most Internal Audit methodologies do not connect or integrate the use of data analytics or continuous auditing throughout the various phases of an audit cycle. Hence, data analytics becomes more of a bolt-on activity.



## The Solutions

### Finding a solution to a challenge

- Data stewardship. Explain to the business how you will store, protect and be good stewards of their data.
- Gain access to the tools already in use in the business.
- At the end of the audit leave the business with auditing tests built as part of the audit for them to operate going forward.
- Train selected staff on how to use new technological tools.
- A dedicated Internal Audit database with direct access to the required data which is then sorted and cleaned for use.
- Demonstrate easy wins.
- Provide valuable insights.

# Internal Audit & Data Analytics



## Maturity Path (I – V)

### How mature is your Internal Audit function?

Establishing where your Internal Audit function is on the KPMG Internal Audit Data Analytics Maturity Model will help establish how mature your data analytics capability is.

Setting a maturity path may help to begin and increase your use of data analytics and continuous auditing and monitoring. This should result in a new Internal Audit methodology being created to focus on data analytics enabled internal auditing at each phase of the audit process.

Making the move to an integrated risk framework with shared risk models in co-ordination with other lines of defence to provide insights and near real-time audit requires the company as a whole to have robust analytics capabilities and alignment with both the Risk and Compliance Departments.



## Investment

### Take advantage of a broader investment in data and technology

Organisations have spent the past few years investing in data analytics and other technology platforms. But they have often failed to expand the use of those capabilities across functions. Internal Audit can interrupt this trend by identifying and taking advantage of common sources of data, tools, infrastructure and analysis capabilities across the three lines of defence.

Identify risks proactively through the use of data and scope audits to find ways to pinpoint risk or eliminate traditional audit procedures. Think about moving toward continuous risk monitoring and shifting resources to the risks that matter most. Unlock value for all stakeholders by using data, knowledge of process and discussions with management to drive insights. Embrace a culture of digital learning, explain to your people why you are all going on this journey together, and recognise that upskilling an organisation will take time.

## KPMG Internal Audit Data Analytics Maturity Model



### Traditional Auditing

Some descriptive data analytics as part of Execution and Reporting



### Ad Hoc Integrated Analytics

Some descriptive and diagnostic data analytics as part of Execution, Reporting and the Internal Audit Plan development. Data analytics is 'bolted on' to traditional auditing



### Continuous Auditing

Descriptive, diagnostic and predictive data analytics across most parts of the Internal Audit lifecycle. Starting to consider Strategic Analysis. Internal auditors' begin to move into consultant role identifying trends, investigating exceptions, and helping the business guide strategy.



### Continuous Monitoring

Descriptive, diagnostic and predictive data analytics across most parts of the Internal Audit lifecycle. Beginning to introduce prescriptive data analytics and routine monitoring



### Continuous Assurance and Predictive Analysis

Continuous Assurance looks to maximise audit automation, reduce cost and still have great coverage. Continuous assurance and predictive analysis requires a fundamental transformation of the Internal Audit process and change in how audits are reported, how often they are performed and the audience they are presented to.



## How can KPMG help?

Contact us for a conversation and benchmark of where your Internal Audit function is on the KPMG Internal Audit Data Analytics Maturity Model. We can help guide you on where and how to begin, provide insights into the current tools and analytics that are being used in the market and how to overcome the initial obstacles.

## Contact us:



**Patrick Farrell**  
Partner  
Risk Consulting  
t: +353 (1) 700 4029  
e: [patrick.farrell@kpmg.ie](mailto:patrick.farrell@kpmg.ie)



**Colm Laird**  
Director  
Risk Consulting  
t: +353 87 111 5949  
e: [colm.laird@kpmg.ie](mailto:colm.laird@kpmg.ie)



**Clarke Ellis**  
Associate Director  
Risk Consulting  
t: +353 87 111 6974  
e: [clarke.ellis@kpmg.ie](mailto:clarke.ellis@kpmg.ie)

## [kpmg.ie](https://www.kpmg.ie)

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2022 KPMG, an Irish partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

The KPMG name and logo are registered trademarks of KPMG International Limited ("KPMG International"), a private English company limited by guarantee. (8726)