Deloitte.

Advanced analytics: Key enabler for upgrading to IA 3.0

The case for advanced analytics

Deloitte's 2018 CAE survey indicated that use of advanced analytics has tripled from seven percent of Internal Audit functions (noted during the 2016 survey) to 21 percent. However, at only a 21 percent adoption rate, there is a huge scope for the incorporation of advanced analytics into IA functions. The survey also reflected that analytics is underutilised in audit planning, and continuous auditing should increase. The results indicate that, in practice, analytics is most often deployed during fieldwork and, less often, in higher-impact activities such as audit scoping and planning.

Adopting analytics calls for deliberately integrating them into Internal Audit's methodology. While 42 percent of functions surveyed require the use of analytics, only one in five Internal Audit groups report having specific integration points and procedures built in to their methodologies. This unstructured use of analytics leaves the audit process vulnerable to reduced quality and inefficiencies, as Internal Audit teams may struggle to identify opportunities to leverage analytics or may do so inconsistently.

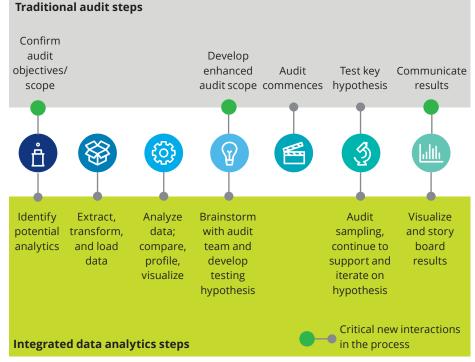
Our experience indicates that IA functions deploying advanced analytics techniques benefit from between 20%-40% reduction in man hours (which can then be deployed elsewhere), 3x - 5x increase in efficiency and aides in much more focused discussions with stakeholders since focus is on root cause rather than exceptions.

Refreshing the audit approach: Embedding advanced analytics

When seeking insight from data, it is important to ask the right questions and to always challenge yourself with "so what?" for any insight produced. Linking questions to key testing hypotheses—or "what could go wrong"?—can help drive the analytics approach. Hypothesis development needs to happen prior to scoping your audit to deliver the greatest benefit. Basic analytics as a "bolt-on" to the audit (i.e., during fieldwork alone) drives incremental rather than transformational benefit.

Advanced analytics goes beyond this basic process in order to better address business issues and risks and provide new and valuable insights to management.

Enhanced insights-driven audit methodology



Assure. Advise. Anticipate: **Embedding advanced analytics into IA 3.0**



Continuous risk monitoring using RPA to identify control overrides & failures



Audit algorithm risk – safeguarding the use of complex algorithms and machine learning models which operate as black boxes



Run statistical models to verify data integrity & run quality checks



Q

 \wedge

Behavioral analytics through risk scoring of key variables by identifying the correlation between behavioral expectations



Compliance monitoring system on unstructured audio data

Image classification models for revenue booking and logistics monitoring

Root cause discovery of a control failure/ override by applying suitable tree-based ML models



Framing and implementing Data Governance model for standardisation, effective integration and benchmarked quality of data

Control failure aversion by predicting the potential exception using machine learning

Risk Advisory



Advanced analytics in practice

DIgnite

A one-stop hub, self service analytics tool for a myriad of risk and process analytics enterprise wide which is industry specific, real time and highly customisable.

Procure to Pay Analytics

Research reveals that in 20% of transactions, there is a mismatch in actual purchase and final goods delivery.

Optimise your procurement process by leveraging our integrated P2P tool which provides risk profile of buyer, user and vendor. It is a complete visibility from the vendor empanelment process to the payment using advance analytic techniques.

FinRisk Analyser

Road Revenue Maximiser

A next gen tool integrated with Descriptive, Predictive analytics and deep learning capabilities to identify and fix revenue leakages and extract maximum value for toll road asset business

Travel and Expense Controller

The business travel market share increased by 6% between 2018 and 2019. Research says that around 35% of the travel & expense reimbursement is contributed by meals and miscellaneous expenses which is based on paper bills.

Improve your employee behavior towards expense claims and fix leakages by leveraging our expense monitoring service integrated with interactive dashboards

Preventive Analytics

A machine learning enabled tool which gives preventive risk alerts by identifying potential cases of control failure exceptions or fraud occurrences and flagging the root causes of the recurring issues in your business process

Enhance your financial review procedure by leveraging our financial reporting tool that gives the organisation a 360 degree view of its financial health and the risks associated with the same

Pharmalytics

Manage the diverse set of risks and potential revenue leakages across various processes associated with pharma industry by leveraging our solution that provides meaningful insights and facilitates data-driven decisions with the help of analytics techniques

Consumer – Step Change in Revenue Risk management

Our Leverage, Validate and Improve model consider three perspectives of People, Cost and Product specifically for consumer business to mitigate unaddressed revenue at risk like poor distributor performance, lack of rationalised product portfolio, ineffective trade promotion, ineffective sales force, etc.

Customised models allow us to review the correlation factors effectively to provide various risk management options.

The inevitability of change

As the saying goes, "There are those who make things happen, those who watch things happen, and those who ask, "What happened?" The stakes are too high, for both Internal Audit and the organisation, for Internal Audit to be in the latter group. Stakeholder needs have become clear enough for Internal Audit to engage in true transformation. And that is what is called for, in the context of a vision for the function and its role in the organisation.

Internal Audit leaders and staff need to embrace change, raise stakeholder expectations, and then deliver on those expectations. Advanced analytics is an important enabler to making this happen.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. Please see www. deloitte.com/about for a more detailed description of DTTL and is member firms.

This material is prepared by Deloitte Touche Tohmatsu India LLP (DTTILLP). This material (including any information contained in it) is intended to provide general information on a particular subject(s) and is not an exhaustive treatment of such subject(s) or a substitute to obtaining professional services or advice. This material may contain information sourced from publicly available information or subres. DTTILLP does not independently verify any such sources and is not responsible for any loss whatsoever caused due to reliance placed on information sourced from such sources. None of DTTILLP, Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte Network") is, by means of this material, rendering any kind of investment, legal or other professional advice or services. You should seek specific advice of the relevant professional(s) for these kind of services. This material or information is not intended to be relied upon as the sole basis for any decision which may affect your your business. Before making any decision or taking any action that might affect your personal finances or business, you should consult a qualified professional daviser.

No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person or entity by reason of access to, use of or reliance on, this material. By using this material or any information contained in it, the user accepts this entire notice and terms of use.

©2019 Deloitte Touche Tohmatsu India LLP. Member of Deloitte Touche Tohmatsu Limited

Contacts

Anthony Crasto President, Risk Advisory Deloitte India acrasto@deloitte.com

Deloitte India peeyushvaish@deloitte.com

Peeyush Vaish

Partner, Risk Advisory

Nitin Naredi Partner, Risk Advisory Deloitte India nitinnaredi@deloitte.com Scan the QR code to know more about the services that we offer

