Professional impact of digital audit - thinking beyond the realm of audit standards

By Professor Giuseppe D'Onza and Federica De Santis, University of Pisa

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Auditors in the private and the public audit sector, be they internal or external, seem to be realising more and more that they need to grasp the opportunities that the digitalisation of their work environment offers. But how should they reconcile these 'digital' developments with the audit standards they normally work with, and which often serve as crucial beacons for an auditor's day-to-day work? Giuseppe D'Onza is Professor of Risk Management and Financial Auditing at the Department of Economics and Management at the University of Pisa. Federica De Santis is a lecturer and researcher at the same department. They have both contributed to the last and previous ECA summer school programmes. They identify some key opportunities for auditors that digitalisation offers and argue that standards should not be a straightjacket and an end as such, but a means to provide quality work.

Digitalisation and digitisation, also for auditors

In today's business environment an increasing number of private and public organisations are moving toward digital transformation to increase the value created for their stakeholders. At the core of such transformation is the need to exploit the opportunities digital technologies offer to enhance the organisation's customer value proposition, to create new products and services and to increase the effectiveness of the organisation's operational model (De Santis, 2018). This digitalisation has an impact on how work gets done, creating new revenue schemes.

The digital transformation is becoming more and more pervasive among organisational departments, moving beyond the marketing and sales functions to permeate every part of an organisation. For example, companies are investing significant resources to generate intelligence from the large volume of data that digitisation – the conversion of analog to digital – has made accessible, to improve procurement and supply chain processes (Alles, 2015a). Even accounting processes are affected by digital transformation (Vasarhelyi, Kogan, & Tuttle, 2015).

In such a scenario, auditors cannot remain deaf to what is going on in their environment and ignore the fact that this massive volume of data needs to be used to deliver high-quality audits by using appropriate tools and techniques. Studies (Issa, Sun, & Vasarhelyi, 2016; Kokina & Davenport, 2017) have amply highlighted that digital technologies can be employed to automate single auditing tasks, as well as the whole auditing cycle, to improve audit planning, execution and communication.

Opportunities for greater assurance

In this article we focus our attention on the digital transformation of the Internal Auditing Functions (IAFs). Empirical surveys[1] indicate that an increasing number of IAFs have started to use digital technologies even though the digitalisation of this function progresses more slowly, on average, than for other organisational departments. IAFs in multinational companies and in banks seems to move faster toward digitalisation than in other contexts as they probably work in organisations in which digital transformation projects have already been implemented in other business functions (D'Onza, Lamboglia, & Verona, 2015; Rikhardsson & Dull, 2016).

Additionally, an increasing number of IAFs are using process mining techniques to analyse the data stored in the Enterprise Resource Planning system, with the aim of testing the population of companies' transactions and discovering anomalies, bottlenecks, duplication of activities and other process inefficiencies (Jans, Alles, & Vasarhelyi, 2014). Leading-edge IAFs are also investing in big data analytics and have started projects to integrate machine leaning and artificial intelligence in their operational and compliance audit processes (Kokina & Davenport, 2017). These projects are usually carried out in cooperation with external consultants, which support the IAF team in embracing new digital technologies.

The aforementioned studies also indicate that the use of digital technology increases the IAF's ability to provide its Board of Directors, Audit Committee and the CEO with greater assurance about the real functioning of corporate business processes, internal controls and risk management activities. We see three key developments here:

- the level of assurance provided is much greater than internal auditors can provide using traditional audit techniques based on sampling (Alles & Vasarhelyi, 2010; Chan, Chiu, & Vasarhelyi, 2018);
- the use of process mining and other data analytics helps to improve understanding of other functions that already use these tools, and increases the quality of the IAF's recommendations;
- these tools improve communication with the IAF's stakeholders by increasing the appeal of the presentation of audit engagement results, which is also important for the IAF to be perceived as a value adding function (Appelbaum, Kogan, & Vasarhelyi, 2017; Rakipi, De Santis, & D'Onza, *forthcoming*).

Digitalisation is indispensable for adding value

Overall, in many organisations internal auditors are seeking to understand how to use digital technologies to evolve the way they work. At the same time, a large number continue to perform their activity in a traditional and somehow anachronistic way. There are also IAFs that have not modernised their toolkit in response to the digital transformation of their organisation. When this happens, the consequence is that the IAF's work is not aligned with the organisation's needs or the expectations of the IAF's stakeholders. The consequence is that the IAF cannot be perceived as a value adding function by the Board of Directors and senior management, and is inevitably marginalised (Sarens & Lamboglia, 2014).

1 See for example Cangemi, 2016; Li, Dai, Gershberg, & Vasarhelyi, 2018; Vasarhelyi, Alles, Kuenkaikaew, & Littley, 2012; Rakipi, De Santis, & D'Onza, forthcoming.

As we know from the definition of internal auditing provided by the Institute of Internal auditors that the ultimate goal of the IAF is to add value and improve an organisation's operations, it is clear that the IAFs cannot lag behind and ignore the advantages this function can obtain from digitalisation. The most obvious are: a more effective and robust understanding of the company's risks; greater assurance for the board and senior management by testing populations instead of subjective or random samples; better quality of audit evidences; an extension of the scope of audit testing, and the automation of previously manual processes. All these benefits can be summarised in a few words: they enhance the quality of internal auditors' work (Schneider, Dai, Janvrin, Ajayi, & Raschke, 2015; Vasarhelyi et al., 2015).

Audit standards as a means, not an end

The enhancement of audit quality should be the main purpose of audit standards. We know that the auditing profession is awash with standards (De Santis, 2016; Knechel, 2013). But auditors should not confuse means and ends: standards represent just a means to an end, which is audit quality. In other words, internal auditors should worry about the quality of their work instead of the degree of compliance with standards. This is particularly true nowadays, since the diverse sets of auditing standards (e.g. financial audit standards, internal audit standards) do not reflect the new technological environment in which auditors operate.

Discussing the need to update financial audit standards, researches have highlighted that many of them are too anachronistic, as they ignore the potentialities that digital technologies offer to enhance the financial statement quality audit. Standards usually lag behind audit practice and this phenomenon is recurrent and physiological within certain limits. The International Auditing and Assurance Standards Board (IAASB) is moving ahead to fill this gap (see for example the International Standards on Auditing (ISA) 315 revised) and other auditing standard setters (e.g. Institute of Internal Auditors, ISO) are also moving in the same direction. So such a lag between standards and practices need not be a limitation on innovation in respect of internal audit techniques (Alles, 2015b; Alles & Gray, 2016).

Digital transformation of audit is crucial, also for chief executives

In conclusion, digital technologies offer the IAFs the opportunity to add more value for their organisations and increase the satisfaction of the IAF's stakeholders. As many organisations are under pressure to increase their profitability, IAFs cannot continue to work in an anachronistic way, using an obsolete toolkit and employing people that do not have the right skills and competencies to implement a digital strategy in the IAF. Otherwise, internal auditors will be perceived as unprofessional and will inevitably lose their organisational relevance (Rakipi, De Santis, D'Onza, *forthcoming*).

We therefore believe that all IAFs should take steps toward digitalisation and work on the conditions to make the digital transformation of the IAF successful. Many commentators believe that the IT competencies of internal auditors are crucial for such a transformation. We agree with this view, but we also believe that Chief Audit Executive (CAE) leadership (Martino, D'onza, & Melville, 2019) is much more important. CAE leadership is a precondition for obtaining adequate financial resources to attract auditors with the skills and competencies to carry out such a transformation. We also believe that CAE leadership is crucial to building positive relationships with key actors within the organisation and, in this way, ensuring the IAF has a central role in the organisation's digital transformation processes.

Box 1 – References

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