

EVOLVING CHALLENGES AND OPPORTUNITIES FOR SUPREME AUDIT INSTITUTIONS IN THE RISE OF DIGITAL AGE

1. INTRODUCTION

Dated back to the invention of abacus two thousand years ago and increased its pace in the 17th and 18th centuries thanks to the introduction of primitive forms of calculators, information processing has been an area of interest throughout the history of humanity. It reached an unprecedented dimension with the era of “digital transformation”, which literally began with the development of the ENIAC, first electronic general-purpose computer, in 1940s. Since then, technology has turned out to be an indispensable factor and left its mark upon every aspect of life.

The new rules of the changing world have made it compulsory to use information technologies (IT) in daily life and work environment. It has become inevitable to produce, process, store and manage information in IT environments due to the full automation of business processes. This, in turn, has led to drastic changes in traditional management approaches, and timely, relevant, value-added, coherent, and accurate information has become the primary defining factor at all segments of businesses (Kayrak, 2014a).

Expectations for introducing mobility, connectedness, easiness, and high quality have made it necessary for the decision-makers to innovate the best solutions. At this phase of the digital transformation, owning technology has become insufficient to properly meet growing needs. As Hinnsen (2010) has described, digital age requires using **Information, Intelligence, Integration, and Innovation** so as to gain a competitive edge in any sectors.

On the other side of the coin, the heavy use of IT in business, private or public, not only presents a tremendous number of opportunities but also leads to new challenges or issues. This does not only affect management approaches but also imposes changes in auditing profession as well due to the fact that auditors primarily operate under the circumstances of business environment. In other words, the fact

that audited entities work in a digital environment requires Supreme Audit Institutions (SAIs) to take necessary steps in that environment as well. This paper is an attempt to discover the opportunities to enhance the quality and effectiveness of supreme audit function in digital age.

2. INFORMATION TECHNOLOGY AND SUPREME AUDIT FUNCTION

Using information systems, (IS) such as transaction processing systems, office support systems, management information systems, decision support systems and strategic information systems, helps organizations gain a competitive edge. Nonetheless, while the exponential growth of technology has provided a plethora of opportunities in both private and public sectors, it has brought its own challenges. It is deemed necessary to apply the newest and flexible technologies so as to produce, process, store, and file huge amounts of data from every segment of the business; however, this may not necessarily add value to organizations due to the fact that complicated technologies and huge amounts of information may lead to complexity, duplication, intolerability, and confusion.

SAIs are responsible for revealing deviations from accepted standards and the violations of the principles of legality, efficiency, effectiveness and economy of financial management early enough to make it possible for audited entities to take corrective actions on time. In doing so, SAIs, by no doubt, fulfill their roles and responsibilities in similar business environments together with auditees. For that reason, the rapid escalation of technology in business environments definitely has an undeniable impact on supreme audit function in general. Performing audit task efficiently and effectively is a top priority of SAIs, and emerging technology-driven approach to management also requires SAIs to adapt themselves to the conditions of digital age.

SAIs are challenged by technology at two different dimensions: management and auditing. Firstly, each SAI is responsible for managing its own organization in a way to maximize its productivity. That is to say, improving audit quality and effectiveness is about getting the best out of the given resources and investing on the new ones when necessary. At this point, catching up with global trends in technology relating to audit profession is extremely important for SAIs. Secondly, it is equally

significant to understand the role of IT in audit universe and highlight the IT risks faced by the auditees.

Overall, the key issues for SAIs to enhance the quality and effectiveness of audits by means of IT can be listed as follows:

1. Which technology to use;
2. How to improve the productivity in audit planning and implementation;
3. IT risks that should be highlighted;
4. Dealing with data; and
5. The better use of information and communication technologies (ITC) in improving communication with all stakeholders.

The Turkish Court of Accounts (TCA), the SAI of Turkey, has been a very ambitious follower of changes in the area of IT with a strategic vision to set itself as an example to the other public institutions in organizational management. Recent IT initiatives relating to the IT governance of the TCA, the audit management system, data analysis and IT audit have provided the TCA with invaluable opportunities to enhance quality and effectiveness of its audits. In the meantime, the TCA has carried out periodic IT self-assessments in order to evaluate the current situation of the use of IT and to further explore the opportunities for improving its audit function.

2.1. Business/IT Alignment: Road to Create Best Value for Audit

Digital transformation has been ongoing with dissimilar paces in different sectors depending on the nature of businesses. It has been argued that audit profession has lagged behind the pace of change when compared to audited entities. The issue has been thought to be more drastic in the public sector, and auditors have been claimed to work with rather traditional methods and tools. Such critiques have been mostly voiced by the managements that have already started to operate in paperless business environments.

Nowadays, owning the latest IT systems becomes highly popular among SAIs. However, acquiring the most recent or fashionable technology does not necessarily improve the overall quality of supreme audit function. Lack of appropriate business-IT alignment in a SAI may lead to certain risks such as (ISACA, 2007):

- IT capabilities not contributing to the audit strategies;
- Ineffective decision making leading to investments in IT that have insufficient return or a negative impact on supreme audit function;
- Opportunities and capabilities not leveraged;
- Unnecessary IT initiatives and investments;
- Organizational failure to maximize the use of emerging technological opportunities to improve the overall quality of audits;
- Incorrect perception of IT value contribution to audit function; and
- Financial losses etc.

In order to stave off the abovementioned risks, an appropriate level of IT governance ought to be established and maintained. IT governance is an inherent element of corporate governance and requires particular organizational structures, processes and leadership (Kayrak, 2014b). To this end, a SAI needs to ensure that sufficient IT-related capabilities (technology, process and people) are available to support audit strategies effectively at an optimal cost.

Enhancing the overall quality of audit function is only feasible by aligning business and IT. The establishment of an IT strategy committee to determine the strategic directions in line with audit strategies and implementing an IT strategy aligned with audit strategies would be integral in achieving the delivery of IT services that perfectly meet the requirements of audit functions.

Business/IT alignment is the starting point to create the best value to supreme audit function. It will help both business and IT;

- Understand audit strategies and future directions;
- Assess the current IT capabilities and performance;
- Define the target technologies to acquire; and
- Continuously pursue a strategic roadmap to improve audit quality and effectiveness.

2.1.1. The TCA Experience

The TCA is a front-runner public administration in the area of IT governance in Turkey. Two specific steps can be considered as best practices:

- To begin with, the first IT strategy in the public sector of Turkey was prepared and put into force in 2007 by the TCA. It paved the way for a series of IT Projects especially on the subjects of audit management system, automation of business processes and data analysis. Strategy monitoring was closely carried out by the head of sectors with a role of Chief Information Officer (CIO). The latest IT strategy of the TCA covering 2015-2017 is now under preparation and will be in force by the end of the year.
- Secondly, the IT Strategy Committee of the TCA, established in 2013 thanks to the IT Self-Assessment performed in the same year, provides an excellent opportunity to meet the management, business and IT needs in the TCA. Committee Decisions help the TCA launch IT projects and initiatives so as to contribute to the quality and effectiveness of audits. It is considered as a perfect means to convey the needs of auditors from the field and get the best answers from IT. Sub-committees are always ready to function when necessary to further analyze specific cases or develop new ideas.

2.2. Audit Management Systems: Beyond the Traditional Approaches

Audit management systems (AMSs) are systems that are used for planning, managing, documenting, indexing, connecting, reviewing, reporting, recording and storing audit works in a computerized environment. Audit management systems, whether package programs or tailor-made products, play vital roles in managing the auditing functions of SAIs or other audit organizations.

The first examples of the AMS focused on the implementation of the audits, mainly the automation of working papers. In the course of time, they have evolved with a holistic approach, which requires a full automation of audit life cycle in order for further enhancing the quality and effectiveness of audit. To illustrate, risk based audit

planning at institutional level, providing time management information on audits so as to facilitate better decision-making and calculating the cost of audits.

AMSs basically help SAIs improve themselves in the following areas:

- Enhancing the management of all audit processes;
- Efficiency and effectiveness in audits including regularity, performance and IT audits;
- Better risk assessments of auditees in general planning phase;
- Calculating the planned costs of audits in order to improve planning and budgeting processes;
- A high level of standardization among the works of all audit teams completely in line with regularity audit manual;
- A better quality control review system including hot and cold reviews;
- Timely management information to help senior management monitor audits and take necessary decisions;
- Implementation of the information classification schema regarding the audit documentation;
- Improving the transparency and accountability throughout the audit processes; and
- Integrity of audit work papers and information.

Each SAI may have its own specific requirements due to differences in legal framework. Despite the availability of a variety of commercial products in the market, it is always a possibility to develop one's own AMS as a tailor-made solution. At the end of the day, however, this is an IT investment, and it is equally important to bear IT risks in mind. The experiences of many SAIs highlight the following risks, mitigation of which is crucial for the overall success of AMSs:

- Lack of a strong commitment on the part of the senior management;
- Lack of communication between the project teams and users;
- Vague business needs;

- Inability to match with the IT trends in the sector;
- Lack of flexibility to the rapid changes in the business environment;
- Lack of a consistent methodology; and
- Insufficient training and system support for users.

Some of those abovementioned risks could be faced by SAIs and be detrimental to the achievement of AMS projects. Hence, avoiding those IT risks can be considered as critical success factor. To this end, Cordero (2014) suggests a knowledge-based approach and underlines some golden rules such as:

- Use the power of IT for capturing, storing, organizing, retrieving and sharing knowledge;
- Perform knowledge operations whenever and wherever this is required;
- Formalize requirements process and changes;
- Know that IT sets the direction but business determine the pace;
- Estimate the value that the tool will bring to the organization and not only the cost; and
- Build trust of users to the tools and the IT organization.

2.2.1. The TCA Experience

Being a candidate country for EU accession, Turkey has launched a series of reforms on financial management and control system so as to align its laws with the EU standards for more than ten years. Since the enactment of the new TCA Law in 2010, the TCA, traditionally performing compliance audits, has been responsible for carrying out regularity audits of the public sector including both financial audit and compliance audit.

However, changes introduced by the new law concerning the audit mandate, scope and coverage have dramatically increased the burden of managing audit documents by using only the traditional office tools. Hence, the TCA has carried out the Audit Management System (AMS) Project in 2011 in order to conduct and manage regularity audits of the TCA with a systematic approach to enhance overall effectiveness of the audits. In other words, the TCA needed a system that helps

auditors record all their works, tests and findings electronically and provides tools to the management in order to keep track of audits carried out (Akyel and Aslankara, 2012).

SAYCAP, the AMS tool of the TCA, is a customized product prepared within the span of two years. The senior management has made the final decision in favor of using this tailor-made AMS tool because it is comprehensive including all stages of audits; it is appropriate for current and potential needs; it is already customized to meet sui generis audit processes stemming from the judicial power of the TCA; it is adaptable and flexible and it is a domestic software. Furthermore, communication and collaboration advantages of working with a domestic software company as well as cost advantages have helped us decide on using the tool.

The main outcomes of using SAYCAP are as follows (TCA, 2014):

Better Management of all Audit Processes of the TCA. The key contribution of SAYCAP is ensuring constant improvements in the management of all steps of audits from the planning to the follow up phase.

Conducting General Risk Assessment. Having an audit mandate covering more than 5000 public entities, the TCA is obliged to perform risk assessments so as to conduct more efficient audits. The module for general risk assessment allows the Audit Planning and Reporting Group to go through the same set of questions and risking matrix to determine the risk levels of all institutions in the audit registry. The auditees with higher levels of risk are included in the Annual Audit Program of the TCA upon the final decision of the Board of Auditing, Planning and Coordination.

Better Planning of Audit Resources. Given that enhancements in the audit mandate of the TCA have significantly increased the work load per auditor, audit resources are required to be better planned both at the TCA and the Group level. Upon distribution of auditees among the audit groups, each group is able to compare the potential work load (days) required for implementing audits under their mandate with the work force (auditor/day) so as to properly assign audit tasks and request additional work force (auditors) from the Presidency to be able to perform audits appropriately if necessary.

Automation of Audit Procedures. The SAYCAP allows for the automation of all audit procedures and helps auditors decide and implement the necessary audit

procedures at any phase of audits. SAYCAP has an audit pool (i.e. database of audit questions) of procedures mainly consisting of control tests and substantive tests. Additionally, any action which requires completing a working paper is considered as a procedure according to the logic of the application.

An audit procedure is assigned to an auditor who is responsible for completion of the procedure in accordance with official requirements. Certain parameters are set for audit procedures in order to facilitate various types of reports based on audit procedures.

Automation of Working Papers. Audit teams struggled to manage working papers in the absence of a properly functioning audit management system in the past. Now, SAYCAP simplifies creation, approval, monitoring and archiving of working papers in a systematic way.

Automation of Findings. Audit procedures related to “understanding the auditee”, “control tests” and “execution of audit program” steps are provided with a finding tab, and auditors can immediately write their draft findings at any stage of audits. The findings can be classified according to the categories (errors related to accounting, compliance and internal control weaknesses) and report types (audit report, the external audit general evaluation report, financial statistics evaluation report, local government evaluation report or other reports) as well as the nature (systematic or single error/irregularity) and impact of errors (low to high).

It is possible to add the reply of the auditee and recommendation to the related fields as well. Draft findings written during the planning or execution phase of audit are automatically sent to the evaluation module for findings in reporting phase and subject to modifications and final approvals of team leaders and the head of groups. Nevertheless, initial copies of the draft findings are archived to be reviewed in case of a disagreement. Team leaders and/or heads of group are obliged to write a brief explanation if (s)he removes a finding completely. Furthermore, SAYCAP is able to embed approved audit findings into the draft and final audit report templates so that auditor can automatically extract audit reports in the “.doc” format.

Providing Management Information. SAYCAP provides a wide range of management information such as the planned cost of each audit, progress of audits at any particular time, a comprehensive analysis of audits on the basis of audited

entity, sector, budget and institution type etc. Reports can be extracted on a regular basis or upon request.

2.3. Carrying out IT Audits: An Inevitable Direction

In today's world, IT is considered indispensable at every segment of the organizations. However, it is not plausible to achieve the optimum level of benefit from IT with archaic organizational structures and management approaches. Currently the ongoing process of digital revolution has changed the nature of risks and controls in business processes and thereby led to the rise of new understandings in auditing and audit procedures.

Financial information audited by SAIs are produced, processed, stored, transferred and erased in an IT environment. Accounting systems at the national and institutional levels are already in use in many countries. By the same token, financial regulations and related internal controls are required to be implemented in such systems. Inevitably, the use of IT systems leaves a tremendous impact on supreme audit function. The risks associated with IT must be taken into account when evaluating the reliability of accounts, the legality and regularity of underlying transactions and the effectiveness of internal control systems. IT risks such as systematic errors, failure to identify the performer of the transaction, unauthorized access and changes to data, loss of financial data, disclosure of confidential information, undetected control weaknesses would be extremely detrimental to proper implementation of audits (European Court of Accounts, 2011). Losing audit trail and thereby audit evidence will be a huge challenge for auditors and the credibility of audit reports of SAIs.

Many SAIs, for this reason, have understood the above-mentioned challenges and started to carry out IT audits either as a part of regularity and performance audits or as independent IT audits with special focus on IT governance, IT security, and application controls. However, the lack of a methodological approach to IT audit has led to a failure of IT audit initiatives in some of those SAIs. At this point, lessons learnt from the successful cases suggest the following steps to ensure that IT audit helps SAIs improve the overall audit quality and effectiveness:

1. It is a responsibility of SAIs to highlight IT risks and raise awareness in all stakeholders including auditees, Parliaments and citizens.

2. Ensuring the reliability of IT controls on IT systems producing financial information is critical for the credibility of regularity audits using that information.
3. IT self-assessments would be helpful to figure out the current situation and future needs.
4. Identifying generalist auditors, who are capable and interested in becoming IT auditors, is the best way to begin.
5. Establishing an appropriate level of organization for IT audit function is vital for guaranteeing the continuity.
6. Developing and implementing an IT audit methodology is essential to align with international standards.
7. The lack of expertise on IT audit is a common issue among SAIs with some exceptional cases, and continuous professional training is required to keep up with digital age.
8. Getting certified (e.g. CISA) is significant for the credibility of IT audits.

2.3.1. The TCA Experience

The TCA experience on IT audit goes back to the year of 2000 when the TCA carried out the IT audit of the Undersecretariat of Treasury, results of which made a big impact in public sector. It was considered as the first attempt to highlight the IT risks and their impacts on financial and accounting information. Then, the TCA launched a twinning project with the National Audit Office of the UK. With that experience, the TCA developed its own IT audit methodology in accordance with international standards and performed several IT audits in the span of 2004-2007.

Next step was to sign a permanent protocol with the Scientific and Technological Research Council of Turkey (TÜBİTAK) in 2007 to carry out IT audits. The main findings of the IT audits carried out by the TCA could be summarized as follows:

- 1- Lack of IT strategic planning and monitoring;
- 2- Lack of information security management;
- 3- Lack of IT risk management;
- 4- Lack of formal separation of duties in IT activities;

- 5- Issues regarding compliance with IT laws and regulations;
- 6- Lack of formal plans, procedures and monitoring related to information security;
- 7- Lack of awareness regarding social engineering;
- 8- Lack of formal IT project management;
- 9- Lack of standardized documentation for certain financial applications;
- 10-Lack of written IT inventories;
- 11-Breaches of IT laws and regulations etc.

In 2013, the TCA launched an IT audit self-assessment in order to better find out the needs and future directions and firmly determine next steps to be taken. As a consequence, the TCA has taken following actions:

- Approval of the IT Audit Manual and its publication on the TCA's website;
- Organizing awareness training for generalist auditors (up to 5 days);
- Specialized technical trainings for IT auditors;
- Promoting certification (CISA), and preparation of master thesis on IT audit among TCA auditors; and
- Improving "review of IT controls" as a part of regularity audits.

In the meantime, the TCA has carried out IT audits as a part of performance audits either in the form of performance audit of IT environments or covered the IT issues related to audit topics. To illustrate;

- Firstly, the TCA prepared a performance audit report aimed to examine and evaluate the activities carried out within the framework of "e-Transformation Turkey (eDTr) Project". In this performance audit study, the activities concerning the technical infrastructure of e-Government and some other IT processes such as the establishment of the e-Signature, e-Portal, Electronic Document Management System (EBYS) and ensuring the widespread service delivery were assessed.
- Secondly, some of the performance audit studies handled by the TCA also included some IT issues, which were related to audit topics. These are the performance audits of "Combating Nosocomial Infections", "Prevention Activities against Traffic Accidents" and "Coordination of Infrastructure Works by Metropolitan Municipalities".

2.4. Dealing with data

In today's world, almost all information is produced, processed, transferred and stored in a computerized environment, and in turn more and more data is collected electronically by SAIs. This is an irreversible progress that imposes a huge change in traditional audit techniques. A wide range of practices by auditors are in place depending on the size, methodology, audit mandate and vision of SAI such as (Verver, 2004);

- *Ad hoc approach*: It refers to offline data analysis on single computers by using a variety of tools either commercial or in-house developments. This method mostly helps auditors improve the quality of the audits on individual basis.
- *Standardized and repetitive approach*: It includes central and standard tools and procedures to collect, store and manage data. This provides a secure access to data and monitoring as well. Furthermore, automated analyses and tests are in use to make it easy for auditors to implement their audits. Such an approach requires a considerable amount of investment (budget and human resources) but is highly contributive to SAIs in enhancing the overall efficiency and effectiveness of audits.
- *Continuous auditing approach*: It involves continual execution of automated audit and monitoring tests to identify errors, fraud and anomalies on a timely basis. Yet, this approach may not be possible for some SAIs due to limitations in audit mandate, scope and methodology.

Advancements in the database technology and the increasing use of databases by the institutions are unalterable. Originally known as knowledge discovery in databases, data mining has become very popular among auditors since it helps auditors turn raw data into valuable information in the forms of audit trails and evidences for any type of audits. Data mining is a set of computer-assisted techniques designed to automatically mine large volumes of integrated data for new, hidden or unexpected information, or patterns.

However, data mining means a lot of work if enhancing the quality of audits is the ultimate audit strategy of an SAI. The following requirements could highlight the main components of a successful data mining approach:

1. Treating data mining as a business process requiring setting up of a dedicated team of auditors, processes and procedures;
2. Preparing and implementing procedures to obtain data from auditees;
3. Continuous and centralized data collection from auditees;
4. A better IT infrastructure to manage high volumes of data (structured or unstructured);
5. Pre-processing of data to ensure completeness and validity; and
6. Incorporating data mining into the audit approach of SAI.

2.4.1. The TCA Experience

The TCA deems it compulsory to make use of the power of data and relevant computerized audit techniques to increase the quality of the audit work. Computer Aided Audit Software Project of the TCA, which is conducted with the purpose of developing computerized audit, has reached its final stage. With the help of the outcomes of the Project, the TCA achieves (TCA, 2013);

- Regular data transfer thanks to a portal for the auditees to upload their data;
- Automated data analysis on data by the application itself to ensure completeness and validity; and
- Implementation of vast variety data analysis techniques.

2.5. Role of Information and Communication Technologies (ITC) in Improving Communication with all Stakeholders

The main outcome of using Information and Communication Technologies (ITC) is to flourish a culture of openness and accountability in today's world. Many organizations, public or private, make use of ITC in order to better communicate and interact with their stakeholders to gain a competitive edge over others. Likewise, improving communication capacity with all stakeholders including Parliaments, citizens and civil society and auditees is a top priority for SAIs to achieve their objectives and enhance their legitimacy in the age of information (Akyel and Köse, 2011). Furthermore, using ITC is a requirement in many countries where e-

governance and e-transformation require active contribution from all public institutions including SAIs -.

According to the ISSAI 20 (INTOSAI, 2010), “SAIs communicate timely and widely on their activities and audit results through the media, websites and by other means”. In digital age, the most efficient tool to communicate with stakeholders could be considered as websites. Most SAIs use their website to publish their audit reports, strategic plans and other relevant information about themselves or inform the public when necessary. On the other hand, traditional approaches to use websites are no longer considered as efficient as in the past. According to Sa (2011) websites can be categorized as follows;

Level 0	Complete absence of a site accessible to public users;
Level 1 - information:	Information necessary to go through the procedure is available on-line;
Level 2 – one way interaction:	The site offers the possibility of obtaining on-line (download) the forms needed;
Level 3 – two way interaction:	The site offers the possibility of initiating the procedure, giving the user the chance to complete forms on-line using a system of authentication;
Level 4 - transaction:	Full electronic case handling

According to this categorization the *two way interaction* with the stakeholders could better contribute to the mission and vision of SAIs. To this end, the following best practices could be implemented;

- I. **Right to information:** In countries where citizens have the legal right to ask for information, a section including relevant forms in the SAI’s website is used to receive requests, which are automatically transferred to business automation to be able to reply them within the timeframe determined in legislation.

- II. **Complaint Systems:** Some SAIs receive complaints and letters of denunciations through their websites. It helps SAIs receive all the required information in a structured way and automate the business process concerning complaint mechanism. All in all, complaint systems not only improve the interaction with citizens but also develop a better approach to knowledge management. SAIs could use those types of knowledge to determine high risk areas in audits and enhance the efficiency and effectiveness of audit function.
- III. **Audit expectation gap:** It is crucially important for SAIs to understand the expectations of stakeholders and take them into account when preparing audit strategies and plans. According to ISSAI 12 (INTOSAI, 2013);
- “SAIs should be aware of the expectations of stakeholders and respond to these, as appropriate, in a timely manner and without compromising their independence.
 - SAIs should ensure that stakeholders’ expectations and emerging risks are factored into strategic, business and audit plans, as appropriate.
 - SAIs should establish mechanisms for information gathering, decision making and performance measurement to enhance relevance to stakeholders”.

In line with these principles, SAIs could publish audit expectation surveys on their websites so as to figure out expectations; transform that information into knowledge by considering them while defining audit strategies, plans and high risk areas; and finally provide feedback to the public through activity reports.

- IV. **Report follow-up:** In SAIs with judicial powers, it is critical for the responsible public institutions and officers to be able to follow up the stages and send e-documents when necessary. A dedicated and secure section could be developed to improve communication with those concerned.
- V. **E-mail subscription:** In digital age, the timeliness of information is accepted as a critical success factor. Publishing audit reports or other documents on websites does not necessarily ensure the timeliness of information for citizens or NGOs, who are not regular visitors of SAIs’ websites. At this point, an e-mail subscription tool on website could guarantee an instant communication with those who wants to be informed about audit results.

Last but not least, it is a rising trend in both private and public sectors to use social media to get timely and relevant communication with the stakeholders. Some SAIs has already opened official accounts on some social networking sites such as twitter, linkedin etc. for developing new communication channels especially with citizens. Yet, early results suggest that SAIs may still struggle in adapting traditional rules and procedures to new media tools (Algemene Rekenkamer, 2014).

3. CONCLUSION

Being a part of digital age, SAIs are obliged to figure out what IT brings to the table and ought to be ready not only for opportunities but also challenges. This is due to the fact that digitalization is an ongoing and dynamic process that lagging behind would be costly for SAIs. An appropriate approach to IT governance is the first step to understand which actions should be taken by SAIs. If business/IT alignment in SAIs could be achieved, IT projects about audit management systems or big data and IT audit function will be carried out to satisfactorily meet the specific requirements of each SAI.

At this point, it is crucially important to catch up with IT trends in audit profession as well. International organizations such as INTOSAI, EUROSAI or ASOSAI provide excellent grounds to share best practices and lessons learnt about the use of IT to improve audit quality and effectiveness.

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