AUTUMN ISSUE

2024

ECOSAI CIRCULAR

Economic Co-operation Organization

Supreme Audit Institutions


ECOSAI

The ECOSAI is a regional forum of the Supreme Audit Institutions of South and Central Asian regions. Founded in 1994, ECOSAI aims at promoting the state auditing profession in member countries through exchange of ideas, experiences and by holding seminars, conferences, workshops and training courses.

ECOSAI Governing Board

The governing board of ECOSAI comprises of five Member SAIs, including Iran, Kazakhstan, Kyrgyz Republic, Pakistan and Türkiye. The term of the Governing Board Members will expire during 10th ECOSAI Assembly to be held in 2025. The ECOSAI Circular is the official organ of ECOSAI and has the objective of providing member SAIs with the forum of sharing experiences in different areas of public sector auditing.

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MEMBERS ECOSAI

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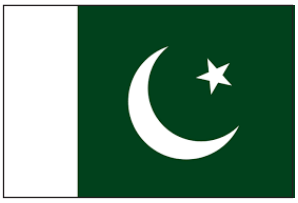
Azerbaijan

Iran

Kazakhstan

Kyrgyzstan



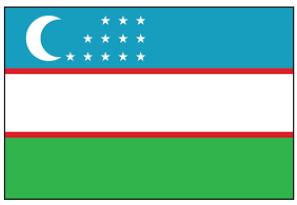
Pakistan

Tajikistan

Turkish Republic of Northern Cyprus

Türkiye

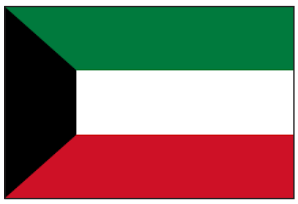
Turkmenistan



Uzbekistan

OBSERVERS ECOSAI

Belarus



Kuwait

Palestine

Qatar

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ECOSAI

MESSAGE OF THE SECRETARY GENERAL ECOSAI

Dear ECOSAI Members,

It is with great pleasure that I present the latest edition of the ECOSAI Autumn Circular. This publication continues to serve as a vital platform for sharing knowledge, experiences, and innovations among the member Supreme Audit Institutions (SAIs) of ECOSAI, fostering a culture of collaboration and mutual learning.

The year 2024 has been marked by significant developments and milestones in the field of public sector auditing across the ECOSAI region. Our member SAIs have demonstrated resilience and adaptability in addressing emerging challenges, leveraging advancements in technology, and reinforcing their commitment to transparency, accountability, and good governance.

The 2024 Autumn Circular reflects the collective efforts and achievements of our community. Within these pages, you will find insightful articles, news and updates from our member SAIs, highlighting their innovative practices, successful initiatives, and valuable lessons learned.

I extend my heartfelt gratitude to all contributors who have enriched this edition with their expertise and perspectives. Your contributions not only inspire but also pave the way for continued progress and excellence in public sector auditing.

I hope that this edition of the ECOSAI Autumn Circular will serve as a valuable resource, fostering innovation and strengthening the bonds of cooperation among our member SAIs. Let us continue to work together to uphold the principles of accountability and integrity, ensuring a brighter and more sustainable future for all.

Warm regards,

MUHAMMAD AJMAL GONDAL
(AUDITOR-GENERAL OF PAKISTAN)

NEWS FROM THE SAIs

SAI AZERBAIJAN CHAIRMAN AT COP29 SAI SIDE EVENT: "CLIMATE SCANNER WILL ALSO ALLOW TO IDENTIFY POTENTIAL ENVIRONMENTAL AUDIT TOPICS"

An event on “Where are the governments with their climate action? – Climate Scanner assessment results” organized by SAI Azerbaijan and INTOSAI, was held within UNFCCC COP29 on November 14, 2024.

Vugar Gulmammadov, SAI Azerbaijan Chairman noted that one of the most important steps in the contribution to climate action is the initiation of designing Climate Scanner tool with the support of experts and international organizations (UN Department of Economic and Social Affairs (UNDESA), World Bank, UN Development Program (UNDP), etc.) together with INTOSAI Working Group on Environmental Audit and Brazilian Federal Court of Accounts, which is currently chairing INTOSAI. He mentioned that through the "Climate Scanner" tool, the SAIs of 141 countries that joined this initiative evaluate the work done by the government to prevent climate change, as well as the state of implementation of commitments taken at the national and international level. To date, the results of the assessment conducted by a large number of SAIs, including SAI Azerbaijan, have been entered into the relevant system for review.

Vugar Gulmammadov expressed his belief that the components and indicators of the Climate Scanner will also contribute to the identification of potential audit topics by acting as an important criterion for future audits in this field.

In the end, the Chairman mentioned that SAI Azerbaijan strongly supports initiatives on the environment in the international community, including the SAI community, and said that the relevant measures will serve to keep climate-related issues updated and increase the role of the audit institution in solving problems in this field.

SAI IRAN ELECTED AS A MEMBER OF THE ASOSAI AUDIT COMMITTEE

The Supreme Audit Court of the Islamic Republic of Iran has been elected as a member of the ASOSAI Audit Committee for a three-year term. This decision follows a vote by the members of the Supreme Audit Institutions of Asian countries, known as ASOSAI, during the 16th General Assembly of ASOSAI took place from September 21 to 27, 2024, in New Delhi, India, attended by the SAIs of 48 Asian countries.

During the two-day meeting, chaired by SAI India as the new Chair of ASOSAI, elections were held for the Governing Board and the Audit Committee of the organization. As a result, SAI Iran was elected as a member of the aforementioned Committee.

During the event, SAI Iran as the President of ECOSAI held several meetings with the heads of delegations from the SAIs of China, Russia, Japan, Brazil, Saudi Arabia, Oman, Malaysia, Vietnam, Uzbekistan, South Korea, India, Maldives, Kuwait, Kyrgyzstan, Indonesia, and Azerbaijan, discussing the expansion of multilateral technical, specialized, and training cooperation.

ECOSAI TRAINING COURSE ON ENVIRONMENTAL AUDITING HOSTED BY SAI IRAN

In accordance with the approval of the 28th ECOSAI Governing Board Meeting, the Supreme Audit Court of the Islamic Republic of Iran hosted an Online Training Course on Environmental Auditing for ECOSAI members on December 17, 2024.

The event featured a keynote speech by Dr. Ali Mohammad Gholiha, the Deputy President for Technical and Auditing of Public and Social Sectors at SAC Iran. He highlighted the critical aspects of environmental auditing and its significance for sustainable development.

The meeting was actively participated by 32 attendees representing 11 member Supreme Audit Institutions (SAIs) of ECOSAI. These included representatives from Turkiye, Pakistan, Tajikistan, Azerbaijan, Afghanistan, Kazakhstan, Kyrgyzstan, the Turkish Republic of Northern Cyprus (TRNC), Belarus, Palestine, and Qatar. Additionally, more than 40 auditors and senior auditors from the provincial offices of SAC Iran participated in the event

At the meeting, two seasoned instructors from SAC Iran namely Mr. Saeed Moradkhani and Mrs. Mahtab Assari, shared their knowledge and experiences on the topic and delivered insightful presentations. Furthermore, SAIs of Pakistan and Afghanistan contributed valuable perspectives by presenting two informative country papers.

In the end, Mr. Seyed Abbas Mirnajafi, Director General of Technical and Auditing Affairs of SAC Iran concluded the training course by presenting a report on environmental auditing in the Islamic Republic of Iran. He expressed hope for the ECOSAI members to overcome the environmental issues including air and water pollution, dust, SDGs, etc.

THE 28TH ECOSAI GOVERNING BOARD MEETING WAS HELD IN ASTANA, REPUBLIC OF KAZAKHSTAN

The 28th ECOSAI Governing Board Meeting was held in Astana (Republic of Kazakhstan). ECOSAI is a regional organization uniting the supreme audit institutions of the member States of the Organization for Economic Cooperation (ECO).

The event was attended by representatives of the state audit institutions of Iran, Kyrgyzstan, Pakistan and Turkey. The participants reviewed the reporting information on General Secretariat's and the ECOSAI Training Committee's work, joint projects, signed MOUs and conducted trainings. In addition, the issue of creating a working group on IT audit was discussed.

The head of the SAI of Kazakhstan, Alikhan Smailov, in his speech, stressed that the supreme audit institutions face an important task to ensure transparency and efficiency of the use of public funds and resources. In this regard, cooperation within ECOSAI is of great importance, as it helps auditors analyze current trends, improve their skills, improve methodology of state audit, as well as share experiences and best practices. "I am sure that the joint efforts of ECOSAI members will contribute to improving the quality of auditing activities in our countries," said the Chairman of the Supreme Audit Chamber of the Republic of Kazakhstan.

Currently, there is a progressive improvement of public audit systems throughout the region. In particular, the status and powers of the Supreme Audit Chamber have been increased in Kazakhstan. So, last year, the SAI of Kazakhstan received the right to audit the use of local budget funds and review the audit results of all other state audit institutions. "This transformation is part of the large-scale socio-political and economic transformations carried out in the republic on the initiative of the Head of State Kassym-Jomart Tokayev," Alikhan Smailov stressed.

During the ECOSAI Governing Board meeting, the participants exchanged views on issues such as ensuring accountability and effectiveness of the use of public funds, strengthening cooperation, further

improving the professional level of state auditors, etc. Following the meeting, the Secretary General reports on the main ECOSAI activities were approved.

As part of a working trip to Astana, representatives of the delegations of the ECOSAI member states also visited the V World Nomad Games, which were held in Astana and also visited the Presidential Center of the Republic of Kazakhstan. Within the framework of this event, a bilateral meeting was held between the SAIs of Kazakhstan and Iran. Issues of strengthening interdepartmental cooperation were discussed by member of the Supreme Audit Chamber of Kazakhstan Nurlan Nurzhanov and Prosecutor General of the Supreme Audit Court of Iran Davood Mohammadi. The parties stressed that today the cooperation of the supreme audit institutions of Kazakhstan and Iran is developing in the spirit of friendship, mutual trust and support. At the same time, joint work is carried out not only on a bilateral basis, but also within the relevant international organizations.

In particular, Kazakh state auditors held thematic seminars and online trainings organized by the Iranian side within ECOSAI. It was noted that the SAIs of Kazakhstan and Iran are constantly studying the best foreign practices and methods of state audit. During the meeting, the parties discussed a number of topical issues of cooperation, plans for the exchange of experience and prospects for the introduction of modern digital technologies into the audit process.

Chairman of the Supreme Audit Chamber of Kazakhstan Alikhan Smailov also held negotiations with the Auditor General of Pakistan Muhammad Ajmal Gondal. The main topics of discussion were:

1. Improving the professional level of auditors and introducing innovations:
   - Description of professional training initiatives, online seminars and trainings.
   - Parallel audit within the SCO in the field of agriculture.
2. Development of new audit methods in Pakistan:
   - Impact audit, which evaluates the effectiveness of government decisions.
   - The introduction of a civil audit with the participation of volunteers.

The SAIs of Kazakhstan and Pakistan actively cooperate within international organizations such as INTOSAI, ASOSAI, ECOSAI and SCO. With the assistance of the Office of the Auditor General of Pakistan, the specialists of the Supreme Audit Chamber of the Republic of Kazakhstan were trained at the Academy of Public Audit and Accounting in Lahore. Today, the interaction continues through seminars and online trainings.

The Supreme Audit Chamber of Kazakhstan aims to further strengthen cooperation with the Office of the Auditor General of Pakistan in all priority areas. These include performance audit, financial statements audit, an electronic (remote) audit, etc.

In general, the 28th ECOSAI Governing Board meeting held in Astana (Republic of Kazakhstan), marked the further development of cooperation between Economic Cooperation Organization (ECO) countries in the field of state audit. The ECOSAI Governing Board members outlined important tasks for further improvement of state audit systems in ECO countries.

ASOSAI 16TH ASSEMBLY 2024: SAI PAKISTAN ELECTED AS MEMBER OF THE GOVERNING BOARD FOR THE TERM 2024-27

The 16th Assembly of ASOSAI held in New Delhi, India on 24th-27th September 2024. During the assembly, SAI Pakistan has elected as Governing Board member for the term 2024-27. Heads of the following ECOSAI Member Supreme Audit Institutions (SAIs) were also elected as Governing Board member and Audit Committee Member for the term 2024-27.

- Azerbaijan (Governing Board)
- Kazakhstan (Governing Board)
- Iran (Audit Committee Member)

This election marks a new era of collaboration and leadership within ASOSAI. SAI Pakistan is committed to playing an active role in strengthening regional cooperation and advancing the vital work of public audit. SAI Pakistan is eager to contribute to this collective effort, driving innovation and best practices in public sector auditing for the benefit of the entire region.

BILATERAL MEETING OF SAI PAKISTAN WITH SAI KAZAKHSTAN

Heads of Supreme Audit Institutions of Kazakhstan and Pakistan held a meeting in Astana, Kazakhstan on September 11, 2024. On the sidelines of ECOSAI GBM, Mr. Muhammad Ajmal Gondal, Auditor General of Pakistan held bilateral meeting with Mr. Alikhan Smailov, Chairman of the Supreme Audit Chamber of the Republic of Kazakhstan. During the bilateral meeting future action plan was discussed to foster enhanced collaboration, strengthen audit practices and share experiences in the field of public sector auditing. This meeting marks a significant step in reinforcing the role of SAIs in promoting transparency, accountability and good governance.

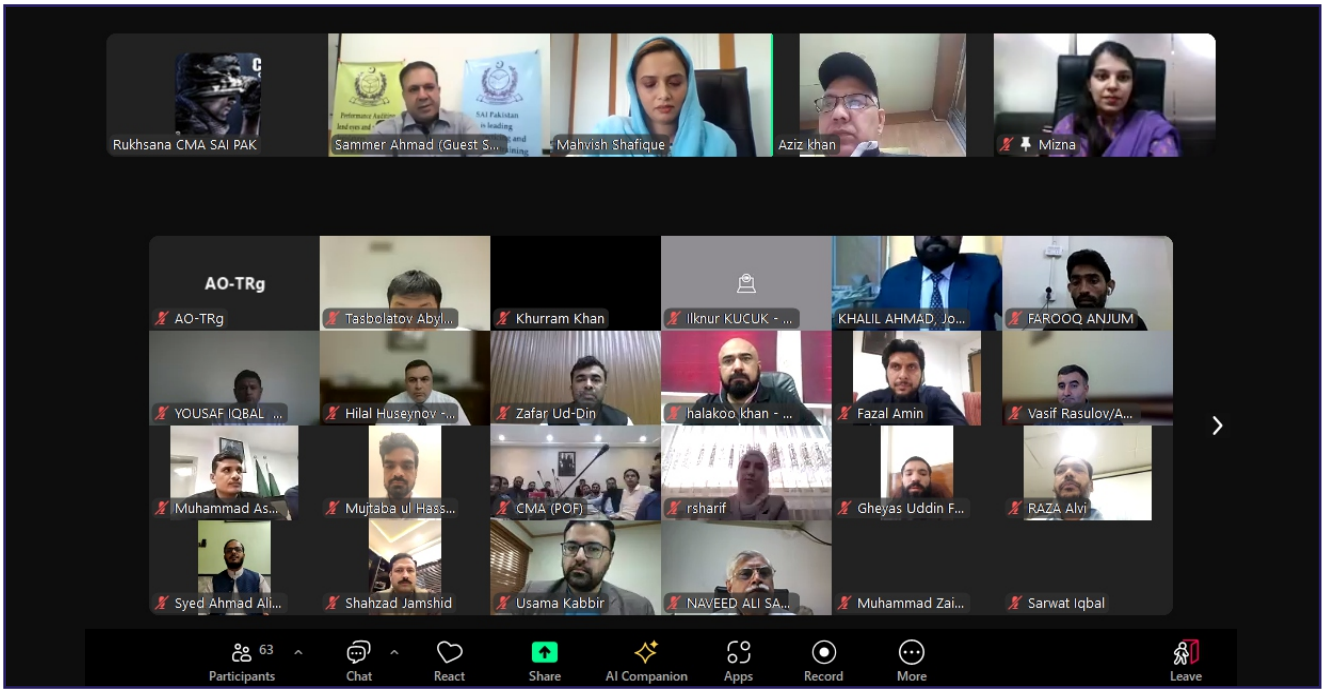
SUPREME AUDIT INSTITUTIONS OF BELARUS AND PAKISTAN SIGNED AN MOU

On November 26, 2024, a significant milestone in international cooperation was achieved when the Supreme Audit Institutions (SAIs) of Belarus and Pakistan signed a Memorandum of Understanding (MoU) to enhance bilateral collaboration in the field of public auditing. The momentous ceremony took place in Islamabad, with the esteemed presence of the Excellencies, the President of Belarus and the Prime Minister of Pakistan, who witnessed this landmark agreement. This MoU marks the beginning of a strengthened partnership aimed at improving governance and transparency through effective public auditing practices.

ONLINE ECOSAI COURSE ON "INFORMATION SYSTEMS AUDIT" FROM 29th OCTOBER - 31st OCTOBER, 2024 (3-DAYS) ARRANGED BY SAI PAKISTAN

SAI Pakistan arranged online ECOSAI Course on "Information Systems Audit" from 29th October - 31st October, 2024. Over the course of three enriching days, 92 participants from nine SAIs—including Afghanistan, Azerbaijan, Belarus, Kazakhstan, Kuwait, Palestine, Qatar, Turkey, and Pakistan—came together to enhance their knowledge and skills in this vital area. The course was expertly organized by SAI Pakistan, fostering collaboration and learning across diverse national and professional backgrounds.

Mr. Sammer Ahmad, Director, Pakistan Audit & Accounts Academy conducted the survey as a resource person. The renown well skilled and experienced resource person has explained the concept of 'Information Systems Audit, examination of various controls within an information systems infrastructure, collection and evaluation of evidence of the design and functions of controls designed and implemented in information systems, practices, and operations. The main areas covered were an overview of information systems auditing, Risk-Based Audit Planning, Controls & its types, Audit Project Management, Sampling Methodology, Audit Evidence Collection Techniques, Data Analytics, Reporting and Communication Techniques, Control Self-Assessment, Enterprise Governance of IT, IT related Frameworks, Organizational Structure, Business Case and Feasibility Analysis, System Development Methodologies, Testing Methodology, System Migration, Business Impact Analysis, Data Backup and Restoration, System Resiliency, Business Continuity Plan, Disaster Recovery Plan, Recovery Time Objectives, Recovery Point Objectives, Alternate Recovery Sites, Physical Access and Environmental Controls, Identity and Access Management, Biometrics, Network and End Point Devices, Public Key Cryptography and Cloud Computing.



MOU ON BILATERAL COOPERATION SIGNED BETWEEN SAI TÜRKIYE AND SAI TURKISH REPUBLIC OF NORTHERN CYPRUS

Mr. Osman KORAHAN, President of Supreme Audit Institution of the Turkish Republic of Northern Cyprus and Mr. Metin YENER, President of Turkish Court of Account signed Memorandum of Understanding (MoU) on Bilateral Cooperation between Supreme Audit Institution of the Turkish Republic of Northern Cyprus and Supreme Audit Institution of the Türkiye in Ankara on 29 May 2024.


ECOSAI

ARTICLES FROM THE SAIs

APPLICATION OF THE INTOSAI P-12 PRINCIPLE (ON THE VALUE AND BENEFITS OF SUPREME AUDIT INSTITUTIONS) IN THE ACTIVITY OF THE CHAMBER OF ACCOUNTS

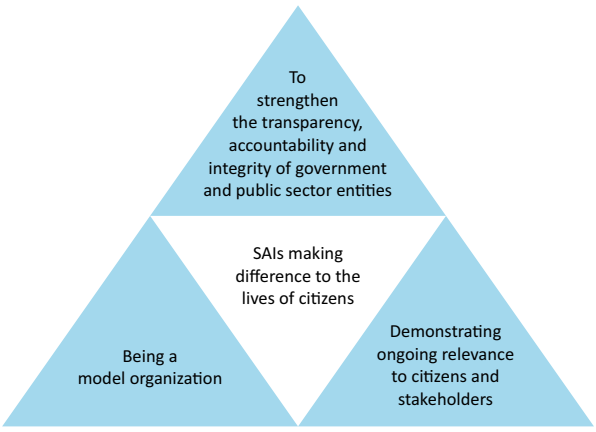
Mr. Vugar Gulmammadov

Chairman,
Chamber of Accounts of the Republic of Azerbaijan

The public sector auditing carried out by the Supreme Audit Institutions (hereinafter - SAI) is an important institution that benefits society and makes a difference to the lives of citizens. Public sector auditing has a positive impact on trust in society by determining how well public resources are being used.

The role of the SAIs as an auditor over the stewardship of public finances leads to the increase of demands and expectations of SAIs from stakeholders, as well as requires them to set up their activity to meet the highest standards and to adapt to the changes that occur.

The provision of benefits to society by Supreme Audit Institutions is ensured by the fulfilment of 3 outcomes, directly related to accountability and transparency. The article deals with the work carried out by the Chamber of Accounts of the Republic of Azerbaijan to achieve these outcomes.



First, regarding **"Strengthening the transparency, accountability and integrity of government and public sector entities"**. Achieving the outcome is measured on the basis of level of SAI independence, as well as reporting on audits, also monitoring audit proposals and recommendations implementation. The

following can be mentioned as the sample of works carried out in this direction recently and their results:

- According to Supreme Audit Institutions Independence Index: 2021 Global Synthesis Report 17 SAIs, including the Chamber of Accounts among 118 countries, had a high level of independence. The report was developed based on the Independence of Supreme Audit Institutions (InSAI) assessment and it includes 10 indicators (legal framework, transparency in the process for appointing the SAI head, financial autonomy, types of audits, operational autonomy, staffing autonomy, audit mandate, audit scope autonomy, access to records and information, right and obligation on audit reporting)
- Recently, a significant increase has been observed in the number of information on audit results made to the public. In 2021, 54% of portfolio audits were disclosed, in 2022 this indicator increased to 60%, and in 2023 this number increased to 64%. Our goal is to increase this rate to 70% by 2025
- The annual reports on our activities reflect the overall implementation status of the proposals based on the audit results. In 2022, 163 out of 205 recommendations, and in 2023, 152 out of 214 proposals were fully or partially implemented by audited entities.
- 72.2% of entities audited twice and more in 2022 and 69.6% of entities audited twice and more in 2023 have relatively strengthened its financial discipline taking into account the previous proposals and recommendations of the Chamber of Accounts.
- To increase the audit impact, the section of "Follow-up of Proposals" was created on the institution's official website in 2024, and it reflects the implementation status of submitted proposals (implemented, partially implemented, etc.).
- In terms of measuring the impact of our activities, the misstatements detected during audits have been grouped with a new approach, which reflects the damage to the budget and other financial violations.
- Our opinions on participation in the budget process are among the main analytical documents that allow the formation of an image on public finances, having a wide readership. The full text of 9 opinions and 2 reports on the draft budgets and budget implementation of the state budget and extra-budgetary state funds in each of 2022 and 2023 are available in the official website. In the remaining period of 2024, 5 opinions and 2 reports were presented to the public.
- One of the innovations is posting Summaries on our official website, which serves to improve the readability of reports and opinions. 4 summaries on opinions and reports were posted on the official website in 2022 and 8 of them in 2023.

Next outcome is "**Demonstrating ongoing relevance to citizens and stakeholders"**. As mentioned above, the role of the SAIs as an auditor over the stewardship of public finances leads to the increase of demands and expectations of SAIs from stakeholders. In this direction, the following can be noted as the works done in recent years, as well as their results:

- For the first time, the expectations of stakeholders were taken into account in the Strategic Plan of the Chamber of Accounts for 5-years.

- Taking advantage of the risk-based audit approach, issues of public importance are also taken into account during the annual audit planning. National legislation also establishes the right of the President and the Parliament to make additions to the audit plan. Based on the proposal of Members of Parliament (MP), 1 audit was included in the Work Plan in 2022 and 2 audits in 2023.
- According to the requirements of both international standards and national legislation information on all audit results, as well as annual reports were submitted to the Parliament. The participation of Chamber of Accounts top management in the Committee and Plenary sessions of the Milli Majlis has been increased (more than 40 in the last 2 and a half years), MPs were invited to Board meetings of the Chamber of Accounts once in 2022 and 3 times in 2023 for the discussion of opinions and audit results.
- The process of inviting the representatives of the audited entities to the Board meetings was reinstated, and management of the audited entities 3 audits of which completed in the remaining period of 2024 attended the relevant meeting.
- One of the works done for increasing the audit impact is submission of the information and recommendations on audit results to the higher executive bodies for the implementation of measures within their powers. Generally, in 2022-2023, information on 19, and in the first 6 months of 2024, information on 5 audits were sent to the Cabinet of Ministers. The report on the activities of Cabinet of Ministers for 2022-2023 reflects information on the consideration of the Chamber of Accounts recommendations.
- Accountability and transparency in the use of public funds are aimed at ensuring public control and also an effective preventive measure against corruption. Since the beginning of 2022 up to present, relevant materials on the results of more than 20 control measures have been sent to the Law Enforcement Agencies.
- To strengthen cooperation with stakeholders, a Communication Strategy based on a new results-based framework was adopted. This Strategy defines more than 100 targets for 5 SMART goals. The document was sought to be ambitious, an increase of 15-20% on an annual basis was envisaged for most of the targets. In the first half of 2024, the implementation level for about 50% of the annual targets for the year varied from 70% to 100%.
- For public participation in the state audit, a sub-section "Propose an audit" was created, as well as a survey on monitoring the stewardship of state finances, including measuring the level of awareness and satisfaction of the activities of the Chamber of Accounts was posted on the official web site.
- To strengthen relations, to organize joint activities for capacity building, to conduct parallel audits with foreign SAIs and, Memorandums of understanding have been signed with SAIs of 8 countries, including Turkey, Pakistan, China, Kazakhstan, Korea, Saudi Arabia, United Arab Emirates and Tajikistan since the beginning of 2022 up to the present date of 2024.
- Being assessed as a model institution in the field of strategic management, accepting the offer to evaluate the colleague's performance within the framework of the international project, the Chamber of Accounts has supported the establishment of the Strategic Plan of Tajikistan SAI, and

conducted the SAI PMF evaluation.

- The Chamber of Accounts, together with the delegation of the SAI of Kazakhstan, has audited ASOSAI financial statements for 2021-2023.
- The role played by the Supreme Audit Institutions in accountability and transparency makes them the object of various evaluations conducted by international organizations. The "Open Budget Index" prepared by the "International Budget Cooperation" organization measures the transparency of budget processes in countries and the public access to budget information. Last assessment covered 125 countries, including Azerbaijan. In the report, the activity of the Chamber of Accounts was rated as "adequate" with 100 points out of 100 (11 points more than previous one). The significant rise of our position was influenced by the assessment of our activity by an external partner, as well as the increased participation of the members of the Chamber of Accounts in Parliamentary discussions.
- The Chamber of Accounts considers global challenges in its activities. The results of 5 audits carried out by the Chamber of Accounts in the last 2 years have been posted in the INTOSAI Atlas on Sustainable Development Goals (SDGs).

Finally, on **"Being a model organization"**. The credibility of SAIs depends on being seen as publicly accountable for their operations. In order to make this possible, supreme audit institutions should be model. In this direction, following can be noted as the works done in recent years, as well as their results:

- The Chamber of Accounts has made public its Strategic Plan for 2021-2025, which reflects its mission, vision, and medium-term goals, through its official website. Both final outcomes of the Strategic Plan cover both accountability and transparency issues. Thus, the 1st outcome is focused on increasing the accountability of state finances, and the 2nd outcome is focused on strengthening credibility on the Chamber of Accounts.
- For the first time in the country, the Chamber of Accounts has used the results-based budget model in annual reporting. Thus, the activities planned and implemented in 2022-2023 have been made public with relevant budget and performance indicators. Compared to 79.4% of budget implementation in 2022, the annual Operational Plan of our Strategic Plan was implemented by 81.3%, and in 2023, compared to 83.3% of budget implementation, the annual Operational Plan was implemented by 91.7%.
- The reports of the Chamber of Accounts provide information on the international standards referred to in audit and non-audit activities.
- To promote accountability on current performance, information on the implementation of cost estimates and public procurement is made public on a quarterly basis. Since last year explanatory notes on annual data are also posted on the official website, and the effectiveness of our procurements in 2023 was evaluated based on best practice (OECD, European Union, etc.).
- The Chamber of Accounts has made another innovation in the accountability of its activities, since last year, and has made public a report on the execution of the cost estimate of the hosted international events.

- In addition, the financial reports of the last 2 years and the Auditor's opinion on these reports have also been published on the official website of the Chamber of Accounts.
- One of the criteria for being model in the public sector is related to external evaluation of performance. In 2021, the evaluation of financial, performance, compliance audits and their methodology in accordance with the SAI PMF framework was carried out by SAI Türkiye, and in 2022-2023, the audit of financial statements was conducted by the SAI Pakistan.
- Training and Human Resources Strategies, annual operational plans and monitoring frameworks have been prepared to improve the knowledge and skills, professional training, as well as enhance the level of personnel potential of the staff of the Chamber of Accounts.
- A risk register reflecting the priority risks affecting the activity of the Chamber of Accounts in 2024, the probability and impact levels of these risks, the methods of addressing them, the control activities that will be implemented to reduce the risks to an acceptable level, etc. has been compiled.
- The Code of Ethics for the members of the Chamber of Accounts has been adopted and published on the official website, considering their responsibility before the state and society within the duties defined by the legislation.
- In order to provide objective, regulatory and advisory functions that serve the development of its activity and increase its efficiency, the position of "chief consultant - internal auditor" has been created in the structure of the Chamber of Accounts.

We aim to strengthen the application of the principles reflected in INTOSAI-P 12, which envisages to make value to society and make positive differences to the lives of citizens by coping with all the duties that fall upon us as a supreme audit institution, in order to further improve the results, we have achieved with the work done.

FINANCIAL LAW AND PUBLIC FINANCIAL MANAGEMENT LEGAL FRAMEWORKS

Ms. Nurana Safarova

Head of The Legal Services and Quality Control Department,
Chamber of Accounts of the Republic of Azerbaijan

This article covers the issues related to the limits of the legal framework of public finance, the legal acts it covers and the scope of the relationships it regulates. At the same time, the article will compare financial law and public financial management legal framework and cover some issues in the legal framework of public financial management.

First of all, it should be noted that law is a system consisting of a set of branches that regulates various relations. These relations cover various aspects of social life. This includes relations from civil circulation, family, land, ecology, labor, public security, administrative management, finance, taxation and other fields.

If we consider the law as a set of norms regulating social relations of various nature, (it is possible to take a broader approach) the set of norms regulating financial relations can also be considered as financial law. Law is mainly divided into branches based on two criteria: First, which relations to regulate, and second, which method to regulate. It should be noted that, although this approach is more traditional for Soviet legal doctrine, it theoretically helps to understand the concept of legal field.

Thus, based on the above, we can say that we can accept financial law as a field of law that regulates financial relations. However, unlike a number of legal fields, it is not easy to correctly define the scope of "financial relations". It is no coincidence that the approach to this legal field by post-Soviet countries and the western practice is basically different. However, in other areas, the approach is almost the same, despite the fact that the legal systems are different.

Based on the above, if we pay attention to the definition of financial law in domestic legal literature, even here we can observe different approaches.

For example: financial law is considered as a system of norms and principles that regulate social relations that arise in the process of creating, distributing and using funds for financial support for the activities of

state and municipal bodies.[1]

In another literature, financial law is defined as a set of legal norms that regulate social relations that arise in the process of financial activity to ensure the implementation of the duties and functions of the state in any period of social development.[2]

A common feature in both concepts is the formation and distribution of funds on the implementation of the duties and functions of the state.

In the domestic legal literature, it can be observed that, relations related to insurance, banking, finance of enterprises, currency relations are also covered within financial law. It should be noted that the activities of these entities assessed under the financial law are mainly activities performed by them as taxpayers. The participation of enterprises in state finances is expressed as a taxpayer, so we can say that this issue is regulated within tax law. In addition, there is no unambiguous and clear approach to the ratio of financial and tax law. Although some literature views tax law as a sub-field of financial law, some literature states that they should be treated as two independent branches.

To compare we should note that in Turkish literature, financial law is viewed in terms of public finance and financial law. The main goal in the concepts given above is limited by the framework of public financial relations. In this framework, subfields such as the Law of income (tax right), law of expenditure (directions of public expenditures, public debt) and budget law are conventionally covered. It is seen that entities of private law (bank, insurance, other enterprises) are not included in the financial law.[3]

It cannot be said with absolute certainty that financial law is considered a separate field in the western approach. More precisely, it is stated that the relations covered by this field include financial transactions, banking, investment, insurance, property management, securities, bankruptcy, and also the issues arising from the protection of competition in the markets arising from these activities. Within this field, the financial relations of the public sector are not particularly emphasized.

Although the full reasons for the formation of such different approaches are not studied within the article, it can be seen in the western literature that, it is derived from the characterization of the budget-tax and wider range of relations in which the state participates as public financial relations. İn other words, despite the fact that the activities of the banking-insurance and financial markets are relations formed by the indirect intervention of the state (issuance of a license, prudential control, etc.), these relations are special financial relations and created with the participation of entities of private law. These relations are regulated by banking, insurance, securities law which are branch or sub-branch of civil law and are private law. . However, budget relations are a completely regulated within public law.

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1 *Ramazanov MK /Financial Law/ Baku 2023. 532 p.*
2 *Mirzayeva AQ /Financial law/ Baku 2008. 214p.*
3 *Nurettin Bilici-Adem Bilici, Financial Law (Seçkin Yaıncılık)*

In addition, despite the fact that they are subjects of private law, as well as their activities (the services they provide, relations with other market subjects, etc.) are regulated by civil law, financial accountability of the above-mentioned enterprises, their obligations arising from the being accounting subject, being subjects of mandatory audits and the regulations related to their obligations arising therefrom can be considered the subject of financial law.

However, it should be noted that the reason for sometimes confusing the circle of relations related to the activities of these enterprises is the fact that the state has significant control over financial market relations, activities of banks, investment funds, and insurers. However, this still does not focus on the "state finance" sector.

It should be noted that the boundaries of financial and tax law are not clearly defined. So, although the tax institute constitutes a significant part of budget relations, as a branch, it is where the relations between the tax collector (state or municipality) and the tax payer (individuals, legal entities) are regulated. It is difficult to say that the issue is addressed unambiguously in the legal doctrine of the country. However, recently formed approach is focused on the relations between the state and the taxpayer as mentioned above, rather than its place in the state finances as the main source of income of the budget, with researching and teaching tax law as a separate branch of law.

Above mentioned suggests that there is no unified and complete approach to the financial law framework. Shortage and lack of clear approach in the doctrine also affects the practical side. Based on the above, we can say that determining the boundaries of public finances is more optimal. Thus, it seems more possible to determine all the elements (regulated social relation, subjects involved in the relationship, the object to which the relationship is directed, etc.) necessary for the legal relations for this sector.

İt is possible to determine the boundaries of these relations because the powers of state institutions related to financial activities have been regulated.

Summarizing the above, within the article, it can be said that it is correct to analyse of "public financial management" part of financial law by accepting only its public side, that is, on the basis of the part of relations arisen in the public sector. In this regard, a slightly different nuance will be observed in relation to state-owned enterprises (legal entities operating on the basis of commercial principles, whose founder or major shareholder is the state). In this regard, the studies of a number of international organizations regarding the management and organization of activities of state-owned enterprises make an important impression.

Relation is formed in two directions in the activity of these enterprises: The participation of the state as an owner in relation to the share held by the state in the establishment of the enterprise, in this category of relations we can talk about the management of state property, and the other is the relations in which

the enterprise itself carries[1] out its activities, that is, it provides services, engages in production activities and other special (private) sector relations. It can be said that private and public law regulations should be reconciled in relation to public enterprises, and the correct ratio should be determined for the application of the principles of these directions. In this regard, the policy related to the management of these enterprises is determined (with a legal act status) in some countries. This policy defines the role of the state and the limits of its intervention in the organization and management of the legal entity. Another interesting regulation is that in the legislation of some countries, it is required to maintain separate accounts of the state-owned legal entity providing public services on two sectors (EU Commission Directive 2006/111/EC).

Based on the above, the legal framework for public financial management can be grouped into two main areas—sources of law and the relationships they govern. In such a division, not the relation, but the boundaries expressed by the legal sources expressing the powers of the state are taken as the basis:

The main legal sources in public financial management

Source*: Legislative acts regulating the constitutional and budgetary process.*

Legal relations*: Division of power related to the adoption of regulatory decisions in the financial field. Division of power and mutual relations of state bodies on budget formulation, approval and control. Relations on budgeting system, budget calendar, documentation, accountability, expenditure framework or policy, budget execution, treasury system, etc.*

Specific legal sources in public financial management

Source*: Legislative acts defining fiscal responsibility, public debt, public financial control.*

Relations*: Relations arising from the performance of the obligations of the entities involved in the budget implementation and the determination of responsibility. The relations based on accountability. The relations arising from the implementation of control over individual elements of the entire management process. Public debt, debt creation, classification, and accountability.*

Related legal sources of public financial management

Source*: Legislative acts regulating public procurement, Central Bank activities, financial activities of local governments, public-private partnership relations.*

Relations*: Relations arising from procedures for the use of budget funds, organization of procurement. Relations arising from public-private partnerships. Relations arising from the performance of the role of the Central Bank in the financial system (assessed in this category due to the fact that it is an independent institution). Financial relations arising between the state and local self-government, including local self-government relationships arising from financial activity (the latter is derived from its local social importance, not the state).*

It should be noted that in the legal relation, it is important to define the participants as well as the relation itself. In this regard, two directions can be defined in financial law. Relations whose parties are

public and private law entities. An example can be given by accepting the relations on above-mentioned financial markets, insurance, and securities markets as financial relations. Relations whose parties are subjects of public law. In private law, the main principles include equality, freedom, and flexibility, allowing for alternative behavior. In contrast, public law is based on subordination, predefined procedures, and mandatory regulations that leave no room for alternatives. It should be noted that one of the parties to the main relations regulated by public law is the state and the other is a private law subject. For example: tax relations, administrative law relations (obtaining an identity card, license, permission, prosecution for an administrative offense, etc.), criminal law.

However, in the management of public finances, basically all participants are elements of the state mechanism and their activities should be regulated in order to ensure transparency and accountability. One of the main reasons for this is the possibility to eliminate gaps and deficiencies in the regulation of financial management of the state bodies involved in the management of public finances, in a mutual manner, during the implementation of relations.

The Constitutional Law "On Normative Legal Acts" highlights common factors leading to abuse, such as gaps in legal regulations, addressing issues meant for laws through other acts, and the absence of administrative procedures. While it cannot be stated without exception that this applies to all public sector relations, it is important to note that the need for regulation also applies to public financial management.

The constitution is the primary source for managing public finances. It not only regulates fundamental relations but also establishes the foundation for future regulations. If we consider the experience of a number of countries, we can see that the regulation of public financial relations is specially expressed in the constitution. In the constitutions of Poland, Moldova, Sweden, Germany, Finland, Spain, Belgium, and Switzerland, financial management is regulated by a separate section. The basis of relations related to the budgeting process with separate items, state property management, tax determination, and public debt is laid just here. The Constitution of the Republic of Azerbaijan should be evaluated as one of the best constitutions due to its systematicity and coverage of relations. Our Constitution does not directly regulate state financial management. Nevertheless, in separate articles Article 15 (Economic development and the state), Article 59 (Right to free enterprise), Article 73 (Tax and other state duties), Article 3, Article 95, Article 109, Article 119 regulate the powers of individual state bodies on the state budget and other issues.

Another important regulation is the laws regulating budget processes, which is the central legislative act in this area. It should be noted that in Uzbekistan, Georgia, Kazakhstan, Ukraine and other countries this law is called as the Budget Code, and in some countries it is known under different names, such as Law on "Budget and Financial Management" in Latvia, Law on "Budget and Fiscal Responsibility" in Montenegro, Law on "On Budget System" in Serbia, "Fiscal Responsibility and Budget System Law" in other countries. In Azerbaijan, this law is called the Law "On the Budget System". In addition to the law, laws on the budgets

of extra-budgetary funds, hormative legal acts applied in the preparation and implementation of the budget, normative legal acts on accountability in this area, and financial strategies play an important role in the regulation of budget relations.

The second category of specific sources of public financial management includes legal acts related to the activities of the fiscal adviser in some countries, along with the legal acts on the relations mentioned above. It should be noted that this institution of financial control, which is traditional for most European countries, is new in nature. Independent Authority for Spanish Fiscal Responsibility operates, the independence of which is guaranteed by legislation. Although the decisions taken by the institution opposing the state budget draft are not binding, it acts on the "comply or explain" principle in parliamentary debates. Thus, if a different decision is presented in the budget draft, the government must explain its non-acceptance of the said decision or make changes to the draft based on the proposal of the institution. Similar relations in Azerbaijan can be compared with the opinion given by the Chamber of Accounts on the draft law on the state budget (with the exception of the "comply or explain" principle).

One of the specific sources is the laws and other normative legal acts that regulate the relations on the public debt. It should be noted that although this concept seems clear from the point of view of public finance, the countries' approach to the legal framework of public debt is not the same. For example, there is a different approach to the scope of public debt, which is the main concept. In some countries, the public debt and the state debt are defined as a boundary that encloses each other. Public debt includes central government debt, state guarantees for borrowings and local government debt (Albania). In some countries, it can be seen that the public debt, which includes the debt of the Central bank, the debt of state-owned enterprises, and the debt of local institutions, is expressed as the debt of the public sector. In a narrower frame, it can be seen that (debt under contracts signed by the Ministry of Finance on behalf of the state) is considered as state debt. It should be noted that the concept of debt also affects accountability.

An analysis of Azerbaijan's legislation reveals a legal framework aligned with international practices regarding the hierarchy of normative legal acts. Public debt relations are regulated through both laws and lower-level acts. Regarding transperancy, although our legislation declares that the information on the volume and composition of the public debt is open, it does not define a detailed requirement for the report. In this case, the country's legislation does not consider the debt of the Central Bank as a public debt, it also can be seen that the debts of state enterprises that do not receive a state guarantee are not public debt. However, it does not directly indicate in which category these debts are assessed.

One of the interesting nuances within financial management is the regulation of issues related to fiscal risk. Domestic legislation does not regulate at what stage of the budget process or how fiscal risks are to be carried out, and there is no attitude towards it at all. However, in practice, special attention is paid to this issue in the preparation of budget documents. Since the risk includes probability, there may be some

difficulties in its legal regulation. Nevertheless, in the financial strategies of the countries, as well as in their legislation fiscal risk reporting and the compilation and monitoring of registers are defined in regulations called financial policy documents. We can say that internationally recognized methods and tools are used in this field as well.

In today's world, a new approach to the management of public finances is being formed, this approach expresses itself in the actualization of climate- responsive, gender-responsive financial management. The impact on the climate and environment is measured during forecasting of budget expenditures using various assessment tools and methods. The process does not end there, the actual effects are expressed in the implementation report. In general, the process is first conditioned by the creation of a climate- responsive public financial management strategy. This can be explained by the complexity of the mentioned process. It is possible to come to this idea from the experience of a number of countries that have adopted this method. Also, not only the impact of the implementation of funds on the environment, but also the determination of the limit of the budget allocated to the environment is important in this budgeting process. The conclusion is the evaluation of the result-based climate responsible budget, the separate determination of environmental and climate impact reports at the implementation stage, and the conduct of audits in this direction at the end. It should be noted that climate impact assessment tools such as Q-Craft (Quantitative Climate Risk Assessment Fiscal Tool), C-PIMA (Climate Public Investment Management Assessment) of the International Monetary Fund are widely used in this context.

Apparently, new priorities require new approaches and the creation of arrangements. This, in turn, requires changes to the legal regulation of financial management and reforms in this field. For this very purpose it is important to determine the legal framework.

Within the reforms on the legal framework, limits of carrying out reforms in legal acts are mainly focused on. It should be noted that we can talk about the experience of state finance reform boundaries covering 7 sections in the legal framework. Thus, it is desirable that the reforms carried out in different countries should include macro-fiscal policy, budget preparation and approval, budget implementation and treasury management, debt, liability and assets management, accountability, accounting and internal control, extra-budgetary state fund management (control), state enterprise activity and responsibility and sanctions. Although we see that there is regulation for all components, when we compare these components within the country, it can be seen that regulation for some sections is not direct, and there are problems with its quality and internal consistency. Notably, improvements are needed in fiscal strategy, liability and asset management, issues concerning extra-budgetary state funds, and internal control mechanisms.

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EUROSAI WORKING GROUP ON ENVIRONMENTAL AUDIT ANNUAL MEETING 2024

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On October 3-4, 2024, the Chamber of Accounts of the Republic of Azerbaijan held the annual meeting of EUROSAI Working Group on Environmental Audit in Baku, Azerbaijan. The main theme of the meeting was "Extreme weather conditions and preparedness strategies".

EUROSAI WGEA has 46 members and the Chair is Polish Supreme Audit Office. Before the meeting, the meeting participants paid tribute to the dear memory of the National Leader of the Azerbaijani people, Heydar Aliyev, and laid flowers in front of his grave. Then they went to the Alley of Martyrs and commemorated the heroes of the Motherland, who died for the independence and territorial integrity of the Republic of Azerbaijan, and laid bouquets of flowers in front of their graves.

Opening the event with an introductory speech, the head of the Polish Supreme Audit Office stated that the conducted audits show that extreme weather conditions are causing more damage to the environment. He said the climate is changing, more water is evaporating from warming seas and oceans, and drought periods are becoming longer. Emphasizing the serious impact of the devastating floods in Europe, the head of the Polish SAI pointed out the need for an effective anti-flood infrastructure to deal with crises.

Speaking at the meeting, the Chairman of the Chamber of Accounts of the Republic of Azerbaijan Vugar Gulmammadov emphasized the importance of hosting the meeting of the Working Group. He noted that according to the relevant Decree of the President of the Republic of Azerbaijan, 2024 was declared the "Year of Solidarity for the Green World" in our country, at the same time, in November of this year, the 29th session of the Conference of the Parties to the UN Framework Convention on Climate Change - COP29 is planned to be held in Baku. He stated that the holding of the annual meeting in Baku this year, increases the responsibility of the Chamber of Accounts, and requires more effective activities together with the participants of the meeting in order to realize the expectations from this event.

Later, the Chairman focused on the challenges that emerged during the environmental audits conducted by the Chamber. Vugar Gulmammadov informed about the current implementation status of the ClimateScanner initiative and emphasized that SAI Azerbaijan actively supports environmental initiatives in the international community, including the SAI community. At the end of his speech, the

Chairman said that events like this meeting will contribute to increase the role of the audit institute in solving problems in this field by serving to keep environmental issues on the agenda.

More than 50 representatives of 19 SAIs took part in the meeting. During the meeting, topics on "Supporting disaster preparedness", "Thoughts on understanding, adaptation and mitigation of extreme events", "Coordinated audit in combating desertification, forest and wildfires", "Fire protection in national parks", etc., were discussed by the international SAI community.

Representatives of the supreme audit bodies of many countries and other organizations made presentations and put forward proposals on the topics of extreme weather conditions and preparedness strategies.

European Court of Auditors representative stated that it is important to switch to green energy, stop deforestation, and introduce carbon taxes to reduce carbon emissions in order to reduce the impact of climate change. She also spoke about the possibility of conducting joint audits by SAIs of different countries regarding transboundary rivers.

SAI Slovakia representative informed about the importance of advance forecasting, preparatory measures, creation of a warning system, response measures, and ensuring security. Ideas about special financial funds and insurance programs for the mitigation of natural disaster risks were put forward.

Open Science Platform Engineer, Directorate of Earth Observation Programmes ESRIN -The EOatSEE project aims to improve understanding and prediction of Extreme Sea Level (ESL) events and their

coastal hazards through advanced Earth Observation technology, and ExtrAIM is an AI-enhanced uncertainty quantification of satellite-derived hydroclimate extremes.

SAI Portugal – The Revita Fund established by the Portuguese government was mentioned. The Revita Fund was established to manage donations for the support and revitalization of the population of the areas affected by the fire.

In 2018, Portugal and Spain agreed to include audits in their plans for public measures to reduce desertification and prevent and combat fires. A joint report by the Courts of Audit of Portugal and Spain states that both countries suffer from high incidences of forest or rural fires. More investment should be made in fire prevention. There is a need for better coordination between different agencies.

SAI UK - The government has not yet determined how resilient it wants the UK to be against all risks or the most specific risks, according to representatives presenting online. Instead, it focuses more on the ability to respond through shared outcomes and shared opportunities. Although there is good forecast data for droughts and storms, this accuracy is less accurate for surface water flooding. The government has committed to developing a coordinated approach to investing in sustainability, but this may not be ready until 2030.

SAI Serbia– A flood audit was conducted in Serbia, and certain findings were used to draw preliminary conclusions about the level of flood preparedness. It was found that not all significant flood areas requiring a special approach in flood protection have been identified and these areas have been included in urban and regional planning that will be available to the government.

SAI Spain – The Spanish Court of Accounts contributes to the fight against desertification and wildfires. A joint report by SAIs of Spain and Portugal on measures to combat and prevent desertification and wildfires states that there is geographic continuity in the ecosystems of Spain and Portugal, especially in border areas, with common problems related to desertification exacerbated by climate change.

SAI Czech Republic- A drought audit was conducted in the Czech Republic, and it was determined that insufficient legislation, conflicting subsidy programs, and increased damage caused by drought are preventing the elimination of this problem.

SAI Netherlands - Recommendations and goals were mentioned, such as trying to observe the years after 2050 regarding floods and developing a multi-level security policy, adapting both the legal framework and financing measures to support cooperation between parties, and including monitoring and control of multi-level security.

EC Directorate General Joint Research Center representative made an online presentation on Supporting preparedness for disasters, the Copernicus Emergency Management Service. Important topics for managing disaster risks, taking effective preparedness measures and increasing people's resilience were discussed.

Polish Meteorology Institute –The role and responsibility of the Polish National Meteorological and Hydrological Services (NMHS) in the collection, analysis and dissemination of weather and climate data as the main source of information in disaster risk management was discussed.

SAI Slovenia –The assessment of the processes, measures and strategies implemented to minimize the impact of floods and reduce the damage caused by them was discussed.

SAI Hungary – An online presentation was made on the topic " Summary of common SDG 6 audit". The assessment of the work done in connection with SDG 6, the results of the audit and recommendations were discussed.

SAI Malta – Malta's preparations for fighting floods, the country's geographical position, climatic conditions and the measures taken in connection with the increase in flood risks in recent years were discussed.

SAI Poland - An audit of fire protection of national parks was conducted in Poland. In the results of the conducted audit, it is noted that the determination of the fire hazard category of terrestrial non-forest ecosystems in national parks, the determination of the methodology and principles of fire protection of these ecosystems, the fire hazard for the entire territory of national parks in which both forest and terrestrial non-forest ecosystems are located it is necessary to define categories.

SAI Azerbaijan - Azim Abasov, Head of the Audit of State Revenues and Economic Areas Department, made a presentation on "Measures to reduce the natural disaster risks". In the presentation, the importance of risk assessment, including assessment of geographical location and climatic conditions and preparation of risk maps, was discussed in reducing the risk of natural disasters. Later, early warning systems were touched upon, and the necessity of a number of tools (various applications and SMS alerts, alarm systems, media) was mentioned for informing people and institutions in advance. At the same time, the presentation informed about awareness campaigns and trainings and talked about the importance of informing about the nature of extreme weather events, risks and how to act the population, conducting regular trainings in schools, workplaces and public places, as well as having easy access to the latest information. In addition, the audits conducted by SAI Azerbaijan on the relevant subject and the ongoing audits were discussed.

Also, the speakers at the event stated that speeding up emergency medical services, increasing the number of professional rescue teams, providing modern equipment necessary for rescue operations, and effective communication will serve to reduce the risk of natural disasters. In the presentation, it was noted that the protection of critical infrastructure such as energy, water supply, communication and transport from extreme weather events, as well as the application of sustainability standards in the construction of new buildings, should be kept in mind.

The meeting was followed by seminars on "Assessment of climate risks" and "How to assess the achievement of resilience targets to natural disasters?", moderated by the European Court of Auditors,

and "Response and environmental impacts of natural disasters or extreme weather events" moderated by SAI Czech Republic. During the seminars, representatives of the participating countries discussed the problems and other important issues faced by the countries related to the audit of the natural disaster.

The participants of the seminar voiced many proposals and recommendations related to the prevention, reduction and audit of natural disasters:

- During floods, a population relocation plan should be drawn up, and according to the information of the early warning system, their evacuation should be carried out before a natural disaster occurs.
- Predicting natural disasters before they occur, taking preventive measures, and identifying areas and population groups exposed to disaster risk lead to fewer complications. Each village, district, city and organization should have a communication plan in case of crisis, and specific responsibilities and obligations of everyone should be determined.
- Measures to prevent forest fires should be taken in advance, requirements against fire danger should be determined for the activity of public catering facilities and the population in the forest area, the circumstances that caused the fire should be investigated, and monitoring should be carried out using observation tools.
- The construction of high dams during river floods can increase the level of river water and, as a result, the residential centers, population, and economic facilities in the lower part of the river will be exposed to a more serious threat. Therefore, during river floods, excess water should be discharged to predetermined areas and water management should be implemented.
- Roads were built as a preventive measure against forest fires, and during the audit it was determined that those roads actually serve commercial activities.

- Insufficient use of water resources leads to water loss.
- It is very important to create an early warning system, to educate the public and to respond adequately to natural disasters. In the United States, modern methods of early warning system are used, where during a natural disaster, phones give a very loud and vibrating alarm.
- Weak coordination among the organizations involved in the prevention of natural disasters, lack of clear division of responsibility hinders the implementation of the measures.
- Funds required for emergency preventive measures are less than funds required for disaster recovery.
- Emergency situations are more damaging to agriculture. Improper management of the impact of emergencies in agriculture leads to soil degradation and water pollution.

Later, the event continued with a social program. Representatives participating in EWGEA annual meeting visited the liberated areas of Aghdam region. Representatives of SAIs of Spain, Portugal, Poland, the Czech Republic, Malta, Bulgaria, Beligium and Serbia, as well as the employees of SAI Azerbaijan, took part in the visit.

During the visit, the participants of the event were given a visual demonstration of the damage caused to the environment of the regions occupied by Armenia, such as the Aghdam region, in the territories of the Republic of Azerbaijan during the occupation.

Within the framework of the visit, the participants planted the trees in the territory of Aghdam with the participation of the special delegation of the President of the Republic of Azerbaijan in Agdam, Fuzuli and Khojavend regions, as well as the employees of the Ministry of Ecology and Natural Resources.

Then the guests got acquainted with the conditions created in the reconstructed village of Kangarli, the extensive construction works, and looked at the ready-made houses built in the village. Here they were given extensive information about Aghdam.

Later, the employees of the Mine Action Agency of The Republic of Azerbaijan informed about the people who died and were injured as a result of the land contamination by Armenia, as well as about the consequences of demining and the cleaning work carried out in this direction in the period after the liberation of the territories from occupation. The participants of the trip watched the process of decontamination of mines found in the area.

At the same time, during the visit, participants were informed on the lowering of the level of the Caspian Sea and the deterioration of the ecological situation due to the impact of climate change, the establishment of parks and greenery in the areas of oil extraction in the territory of Absheron region, the rehabilitation of degraded lands, the cleaning of contaminated lands, the essence, importance and prospects of the Silk Road, the importance of the Sangachal oil and gas terminal that has a great role in Europe's energy security, the importance and prospects of the Alat Free Economic Zone, the drying up of Lake Hajigabul due to climate change and the destruction of its ecosystem.

Also, the participants of the event were introduced to the Asan Service Center located in Kurdamir district, where the participants of the event were informed about the implementation of various state services based on the "one-stop" principle and the use of new methods and modern innovations in this field.

During the visit, the members of the working group stated that they got practical information about the impact of climate change on the environment and the issues related to the scope of the working group and what they saw left a deep impression on them, and they highly appreciated the activities of improving the ecological situation in the liberated territories of Azerbaijan and creating zero-emission smart cities and villages.

THE ENVIRONMENT; COMMON INTERESTS OF COUNTRIES; THE ROLE OF SUPREME AUDIT INSTITUTIONS AS WELL AS INTERNATIONAL AND REGIONAL PUBLIC AUDIT ORGANIZATIONS

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Nation-states have drawn the geographical borders after the Peace of Westphalia and made the national sovereignty in different dimensions a unique effort to preserve the geographical boundaries. However, the environment and its related phenomena do not imagine any boundaries and it is probably the only manifestation that has connected the fate of the earth planet to each other to such an extent. Global warming, dust dilemma, sanitary-industrial pollutants, accumulated waste and garbage on the ground, drying up of underground water resources, expansion of the desert and land slide and subsidence, melting of natural glaciers and lack of clean oxygen as well as hundreds of other destructions have severely established a chain of problems and issues that have made the future of our planet and its ecosystem and native life face dangers.

Therefore, to save the planet, we must reconsider the structure of our life. When dangerous phenomena occur in our atmospheric orbit and the earth in its relentless rotation comes close to an asteroid that threatens it, scientists are restlessly monitoring all its dimensions. Similarly, greenhouse gases, vehicle and industrial pollutants have appeared in any part of the earth and have caused many negative transformations in it. A high percentage of the pollutants that threaten cities now are vehicles that use fossil fuel. Therefore, electric cars should replace these fossil cars and the plan should be implemented step by step. Direct intervention of governments is necessary and inevitable. The coalition of regional and international cooperation in the form of INTOSAI as well as its regional subsidiaries such as ECOSAI as innovative and functional body can easily help all countries, including the countries that need it the most.

If such initiatives are guided or assisted by these kinds of international and regional organizations, they are deemed easy to implement as different SAIs within the INTOSAI and ECOSAI have vast capacities. The SAIs of the member countries should supervise both the implementation of the plan and the operational process of the plan by applying different kinds of audits, which must be implemented step by step.

RISK-BASED AUDITING IN PUBLIC SECTOR: A CASE STUDY OF SAI PAKISTAN AND LESSONS FOR DEVELOPING COUNTRIES

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1. Abstract

Risk-Based Auditing (RBA) has emerged as an effective tool in ensuring the efficient use of public resources by focusing on areas of high risk within an organization. This paper explores the application of RBA within the public sector of Pakistan, with specific attention to the role of the Supreme Audit Institution (SAI). The study compares RBA with traditional audit approaches, emphasizing its ability to prioritize resources and reduce inefficiencies in public sector audits. The paper also highlights key lessons that developing countries can learn from the experience of Pakistan and other countries that have adopted RBA. Moreover, the study draws on the author's first-hand experience of conducting high-profile audits of state-owned enterprises (SOEs) in Pakistan, including Peshawar Electric Supply Co. (PESCO), the Thermal Power Plant, Pakistan International Airlines (PIA), and Pakistan Steel Mills, undertaken at the request of the International Monetary Fund (IMF). The insights gained from these audits provide practical examples of how RBA can help identify key risks in public sector operations. Finally, the paper discusses the relevance of international standards such as the COSO framework and ISO 31000 in guiding RBA practices, with lessons from developed economies serving as a benchmark for improving public sector auditing in developing countries.

2. Research Objective:

This research seeks to:

- Assess the effectiveness of RBA in improving governance and accountability in Pakistan's public sector.
- Investigate how RBA can enhance financial transparency and risk mitigation.
- Compare Pakistan's experience with RBA to international best practices in developed countries like

the UK, where RBA has been successfully implemented.

- What developing SAIs can learn from the SAIs who have successfully implemented RBA?

3. Literature Review on Risk-Based Auditing (RBA)

3.1. Evolution of Risk-Based Auditing

RBA emerged as a result of the inadequacies observed in traditional audit approaches, particularly in their ability to address risks that have a substantial impact on organizational objectives. According to Griffiths (2006), RBA began to gain prominence in the late 1990s as organizations started to recognize that traditional audits often failed to provide assurance over emerging risks, such as changes in market conditions, regulatory shifts, and technological advancements. The 1999 Turnbull Report in the United Kingdom further emphasized the importance of directors disclosing risks to shareholders, highlighting the need for transparency in risk management practices. This marked a shift from the compliance-focused audits to an audit process that integrates risk management into the planning and execution of the audit (Turnbull Report, 1999). The foundation of RBA lies in the broader risk management frameworks such as the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework and the International Organization for Standardization (ISO 31000) risk management standard, which emphasize the need for identifying, assessing, and prioritizing risks to achieve organizational goals (COSO, 2017; ISO, 2018).

3.2. Theoretical Foundations of RBA

The theoretical basis for RBA is rooted in risk management principles. It follows the belief that not all areas of an organization present the same level of risk, and therefore, audits should be focused on those areas where the risk of significant error or fraud is greatest.

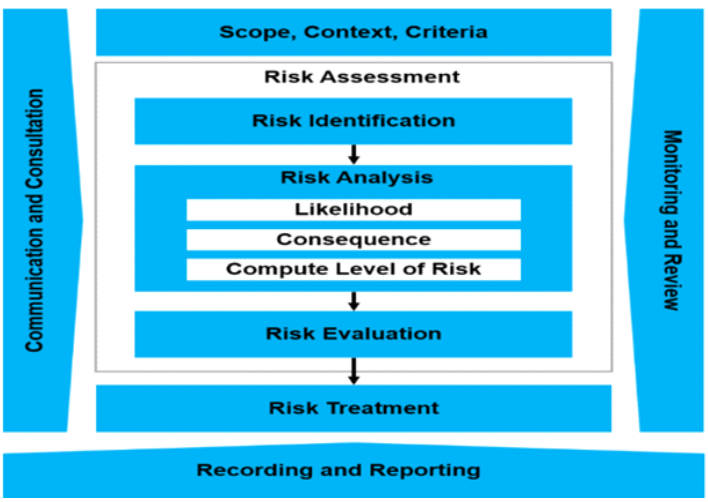


Fig 1: Risk Management Process (Source: ISO 31000 2018)

RBA draws upon the COSO Enterprise Risk Management (ERM) framework, which provides a structured approach to identifying and managing risks (COSO, 2017). The ERM framework categorizes risks into four types: strategic, operational, financial, and compliance, and emphasizes the integration of risk management into the organization's overall governance, strategy, and planning.

The International Federation of Accountants (IFAC) has also advocated for the adoption of RBA in auditing standards. IFAC's International Standards on Auditing (ISAs) stress the importance of risk assessment during the planning stages of an audit. ISA 315 (Identifying and Assessing the Risks of Material Misstatement) and ISA 330 (The Auditor's Responses to Assessed Risks) provide specific guidance on how auditors should identify, assess, and respond to risks in the audit process (IFAC, 2016). These standards emphasize the need for auditors to focus their attention on areas with a higher risk of material misstatement.

3.3. Risk-Based Auditing (RBA) vs. Traditional Auditing: A Critical Analysis

In auditing, the choice of approach can significantly impact the efficiency and effectiveness of the audit. Traditional auditing primarily focuses on compliance with rules, regulations, and internal controls. In contrast, RBA shifts the focus from compliance to identifying and evaluating risks that could significantly impact the organization's objectives. By prioritizing high-risk areas, RBA aims to allocate resources to the most critical issues. This allows for a more efficient and effective audit process, as the auditor spends more time analyzing the areas where the risk of material misstatement or operational failure is greatest. This targeted approach ensures that auditors are not wasting resources on low-risk areas that may not have a significant impact on the organization.

Since traditional audit method relies heavily on pre-established procedures, it may not adequately address emerging risks or unexpected issues that arise during the audit process. In contrast, RBA is more adaptable and responsive. Since the audit plan is based on an assessment of risks, it can be adjusted as new information becomes available or as risks change. This flexibility allows RBA to remain relevant in dynamic environments, making it better suited to organizations that face complex, fast-changing risk landscapes compliance issues.

Traditional audits generally lack a detailed focus on risk management processes. While, RBA, by definition, places risk management at the center of the audit process. This allows organizations to take a more proactive approach to risk management, rather than simply reacting to compliance issues

As the table illustrates, RBA provides a more focused and efficient use of audit resources by identifying the areas of greatest risk to an organization. Traditional audits, while valuable, often require significant resources and may overlook potential risks because of their broad scope.

Table 1: Comparison of RBA and Traditional Auditing

Aspect	Traditional Auditing	Risk-Based Auditing (RBA)
Focus	Compliance with rules and regulations	Identification and evaluation of risks
Scope	Broad, covering all areas regardless of risk	Narrow, focusing on high -risk areas
Resource Allocation	Resources spread across all areas, potentially inefficient	Resources focused on high -risk areas, improving efficiency
Audit Plan	Static, based on pre - established procedures	Dynamic, based on continuous risk assessment
Adaptability	Rigid, checklist -based approach	Flexible, audit scope can be adjusted as risks change
Risk Awareness	Limited focus on risk management	Central focus on risk identification and management
Audit Outcome	Ensures compliance and adherence to regulations	Provides insights into risk management and strategic issues
Value Addition	Limited to compliance and control issues	Provides recommendations for improving risk management and organizational performance
Audit Frequency	Regular or periodic, regardless of risk profile	Frequency based on risk profile , high-risk areas audited more frequently
Stakeholder Focus	Primarily focuses on legal and regulatory stakeholders	Focuses on both regulatory stakeholders and internal management

3.4. RBA in Pakistan's Public Sector

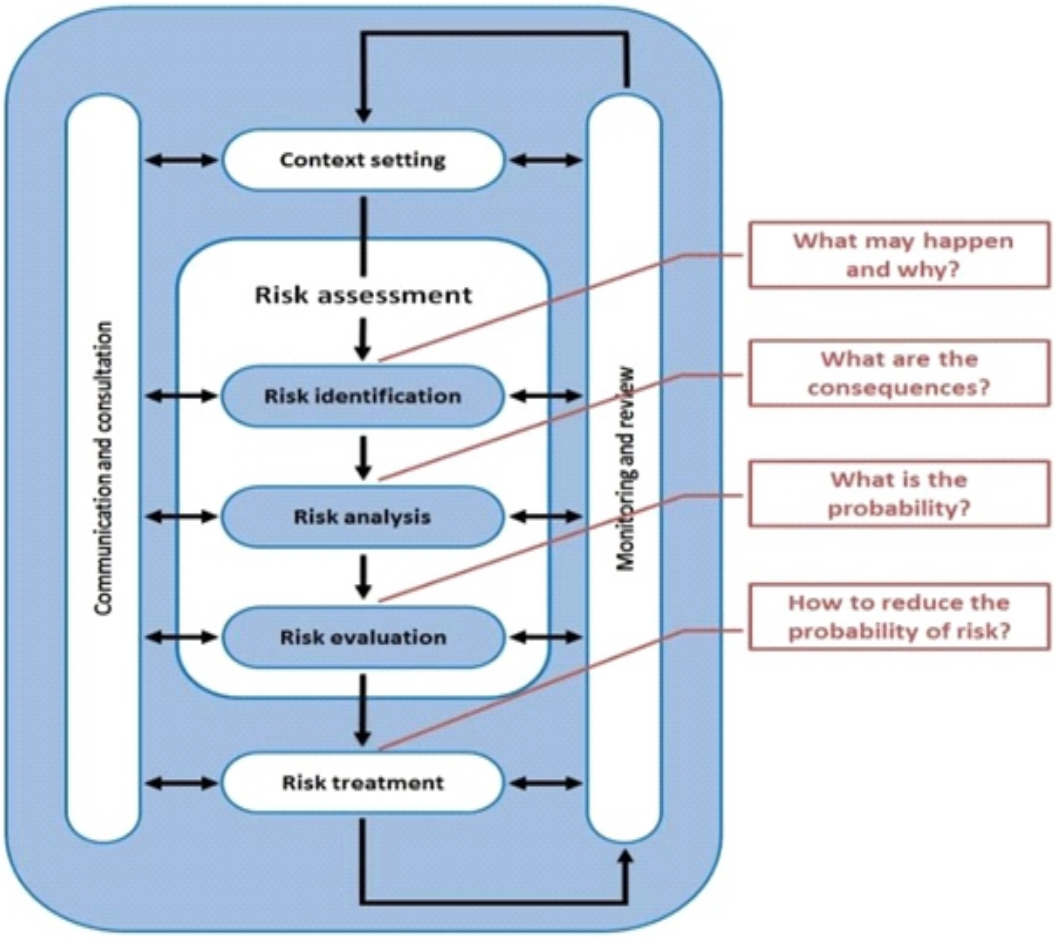
The Supreme Audit Institution (SAI) of Pakistan has implemented RBA in several high-profile cases. The author, having first-hand experience in leading audits of SOEs such as PESCO, the Thermal Power Plant, and Pakistan International Airlines (PIA), highlights the challenges and opportunities that RBA presents in the public sector. These audits, conducted at the request of the International Monetary Fund (IMF), aimed to assess the sustainability of these SOEs and provide recommendations for either restructuring or privatization.

4. Methodology:

4.1. Research Design

This study employs a **comparative case study** approach, focusing on Pakistan's public sector as a case study while comparing it with the experiences of developed countries. The research will rely on **secondary data** from audit reports published by the **Auditor General of Pakistan (AGP)**, public financial management reviews, and international audit guidelines.

Fig 2: Risk Management Framework (Source: IIA.org)



4.2. Data Collection

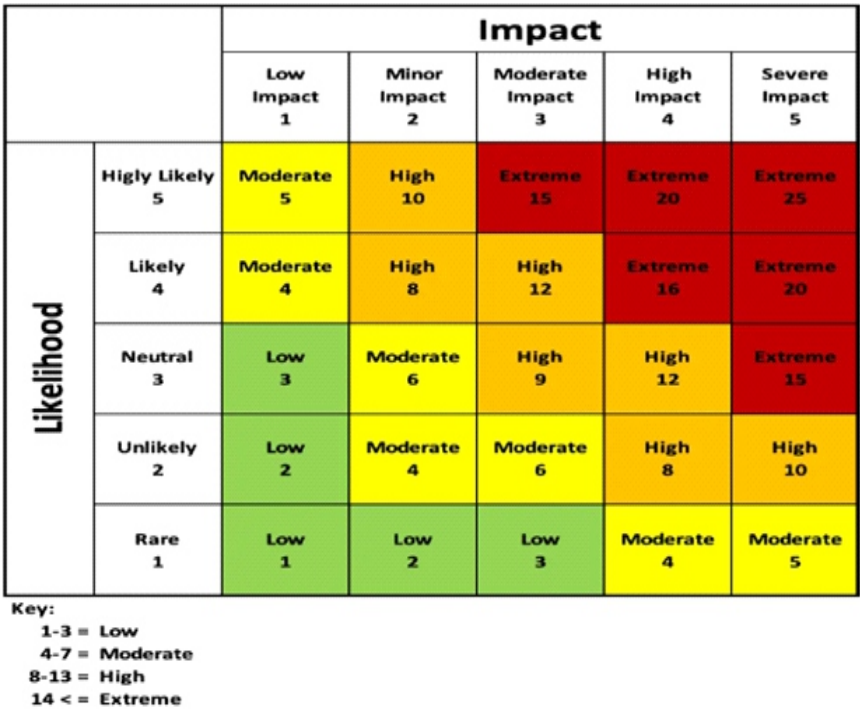
- **Secondary Data**: Audit reports from AGP, financial statements of government departments, and SDG progress reports in Pakistan.
- **Sources**: World Bank, United Nations, Auditor General of Pakistan, IMF, and various SAI reports from developed countries such as the UK and Australia.

4.3. Data Analysis

The analysis focused on:

- **Risk Prioritization:** Using the COSO and ISO 31000 frameworks to assess how well Pakistan's public sector has integrated risk management into its audit processes.
- **Audit Outcomes:** Comparing audit outcomes before and after the adoption of RBA in Pakistan's public sector.
- **Benchmarking Against Developed Countries:** Identifying gaps in Pakistan's approach by benchmarking against developed countries' experiences with RBA.

Fig 3: Risk Matrix



Likelihood	Impact: Low Impact 1	Minor Impact 2	Moderate Impact 3	High Impact 4	Severe Impact 5
Higly Likely 5	Moderate 5	High 10	Extreme 15	Extreme 20	Extreme 25
Likely 4	Moderate 4	High 8	High 12	Extreme 16	Extreme 20
Neutral 3	Low 3	Moderate 6	High 9	High 12	Extreme 15
Unlikely 2	Low 2	Moderate 4	Moderate 6	High 8	High 10
Rare 1	Low 1	Low 2	Low 3	Moderate 4	Moderate 5

Key:
1-3 = Low
4-7 = Moderate
8-13 = High
14 < = Extreme

For instance, in the case of PESCO, the audit revealed inefficiencies in billing systems, rampant electricity theft, and an overstaffed organization that significantly contributed to its financial losses. The audit of PIA identified significant operational risks, including mismanagement, over-dependence on government subsidies, and corruption, which impeded the airline's financial sustainability. Similarly, the audit of Pakistan Steel Mills uncovered the severe mismanagement of resources, poor planning, and outdated infrastructure that rendered the enterprise financially unsustainable.

These audits demonstrate the advantages of RBA in identifying and addressing key risks within public sector organizations. Through RBA, the SAI was able to focus its resources on the most critical areas, providing valuable insights into the governance and sustainability of these SOEs.

5. Lessons from Developed Economies

Developing countries can learn valuable lessons from the experiences of developed economies in implementing RBA in the public sector. Developed countries such as the UK, Canada, and Australia have long-standing practices of RBA, supported by comprehensive regulatory frameworks and strong governance structures. The **Turnbull Report (1999)** and subsequent updates in the UK provide an example of how RBA can improve transparency and accountability in public sector operations. Similarly, Canada's Office of the Auditor General has focused its audit efforts on high-risk areas, delivering better outcomes for the public sector (**Morin, 2008**).

One of the key lessons for developing countries is the importance of institutionalizing RBA through appropriate legal and regulatory frameworks. Pakistan's experience shows that while RBA can be effective, it requires continuous capacity building and the establishment of audit committees to oversee the audit function. The **COSO framework (2017)** and **ISO 31000 standards (2018)** can provide a structured approach to implementing RBA and ensuring its success in the public sector.

6. Conclusion

Risk-Based Auditing offers significant advantages over traditional auditing methods by enabling auditors to focus on areas of greatest risk. In Pakistan, RBA has been successfully applied in the audits of SOEs, providing valuable insights into their governance and operational inefficiencies. The lessons learned from Pakistan's experience, along with those of other developing countries, underscore the need for continuous capacity building and the adoption of international best practices. As developing countries seek to improve the effectiveness of their audit functions, the implementation of RBA offers a pathway to more efficient and targeted audits that add value to the public sector.

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UNDERSTANDING THE INFORMATION SYSTEMS SECURITY FOR IS/IT AUDITORS IN A NUTSHELL

More often than not the domain of information systems security starts from the external network layer and ends at the data layer. Between these two extremes i.e. external network and the data, there are many layers in the security spectrum. Journey starts from external network to the network perimeter; from perimeter to (our) internal network; from internal network to host; from host to application; and from application to data.

There are various defenses in each layer mentioned above. For making the external network secure from various attacks, we have six tools/mechanisms e.g. Demilitarized Zone (DMZ: the zone between the internal and external firewalls for safeguarding the web server or any other server placed in this zone to thwart from internal and external attacks); Virtual Private Network (VPN: it is used for remote access of company's internal resources safely); logging and reviewing of the logs; penetration testing and vulnerability scanning/analysis. For securing the network perimeter, we have seven tools/mechanism available and those are used to make the perimeter secure from any outside or inside attack e.g. Firewalls, proxies, logging, state-full packet inspection, auditing, penetration testing and vulnerability analysis are used.

For securing the internal network from any inside or outside attack, we have six tools/mechanisms used to avoid any untoward incident and those are Intrusion Detection System (IDS: usually IDS/IPS works on the principle of signature based or anomaly based detection) and Intrusion Prevention System (IPS); logging and auditing (reviewing of the logs); and penetration testing and vulnerability analysis. Hosts are usually made secure by ten different layers of security and those are authentication, use of antivirus, use of firewalls, IDS, IPS, password hashing, logging and auditing, penetration testing and vulnerability analysis.

For securing the application layer, we have six mechanisms/tools and those are single sign on (SSO: a single but complex password is used for many applications to get rid of password handling issues),

content filtering, data validation, auditing, penetration testing and vulnerability analysis. In the last, the most important thing i.e. the turn of protection of data comes. There are five different mechanisms/tools available for the protection of data and those are encryption (symmetric or asymmetric encryption), access control, backup, penetration testing and vulnerability analysis. It is to be noted here that photocopiers, printers, fax machines also have their internal memory and the residual data is stored in the internal memory of such devices so care must be taken while using such devices because in case of classified or sensitive information, data may be leaked/stolen.

Overall Network Security Mechanism

When we are considering the protection of networks, we would first see the security in the network design. For that purpose, we will see whether segmentation (small segments of network are called subnets) of a large network has been done in smaller networks or not. These smaller networks (segments: subnets) are an easy way to allow or disallow the traffic based on predefined criteria. The second point to be noted is that whether there are presence of choke points or not because the choke points (funnels) are good way to inspect, filter and control the traffic. The third important point is to see whether there is presence of planned redundancy of devices or not to tackle the matter in case of single point of failure (SPF).

Other than network design, we see various devices or mechanism e.g. firewalls. Mostly we use Packet Filtering, State-full Inspection and Deep Packet Inspection firewalls, Proxy Servers and DMZ. Each of the above has its specific function to perform. In addition to firewalls, we see whether there is the existence of IDS or IPS. If IDS/IPS is the requirement of the specific network security, then it must be there in network (mostly IDS/IPS is used after a firewall for layered protection/defense in depth protection). For protecting network traffic on unprotected network, we usually use VPN for remote access.

In addition to the above-mentioned mechanism/devices, there are many network security tools available in the market. For example, Kismet is used for Linux for detecting unauthorized wireless devices (for detection of rogue access points); for Window, we usually use NetStumbler for the same purpose. Add to this there are some scanners (port scanners and vulnerability scanners) available for protection e.g. Nmap (Network Mapper). Moreover, there are some other tools available for network security e.g. Packet sniffers (WinDump and Wireshark etc.).

Overall Operating System (OS) Security Mechanism

For checking the OS security, we focus on whether it has been made hardened or not. For hardening the system, we remove all unnecessary software; we remove all unnecessary services; we alter the default accounts; we use the principle of least privilege; we apply updated security patches and finally we conduct logging and reviewing. In addition to make the system hardened, we also install antimalware software for extra protection from any malicious software. We can also implement host-based IDS. Even

after applying such security mechanisms, there may be the existence of security flaws in the system and those can be tackled with the scanning tools like Nmap (OS scanning tool) and Nessus (vulnerability assessment tool).

Overall Application Security Mechanism

In software development process, there may be the existence of numerous vulnerabilities and due to those weaknesses, software may face 'race conditions', buffer overflow attacks, input validation attacks, authorization attacks, authentication attacks and cryptographic attacks etc. To get rid of such attacks auditees have to observe secure coding guidelines (internally made coding guidelines or guidelines made by NIST, CERT or BSI: globally recognized bodies for making secure coding guidelines). For database security, there are few concerns like arbitrary code execution, protocol issues, privilege escalation and unauthenticated access etc. All such problems can be mitigated by observing secure coding, by applying up-to-date patching and by using the principle of least privilege. We can also use sniffers e.g. WinDump and Wireshark for observing what is going in and out of the applications. If we consider the web security, we face two types of issues: client side issues and server side issues. Client side issues can be resolved by using the current version of software and updated patches. Server side issues can be resolved by applying strict permissions, input validation and removing the leftover files from development or trouble shooting struggles etc.

Priority of Protection

In case of any untoward incident (disaster) the priority of protection is people, data and equipment/hardware (including facilities). People are the most important asset for any organization and skilled peoples/employees are very difficult to replace. So, people are protected as a first priority. After this, the most important thing for any organization is the data because lost data is also not easy to retrieve. Donn Parker in his book *Fighting Computer Crimes* enlisted few physical threats to people, data and the equipment/hardware and those are: extreme temperature, gases, liquids, and living organisms. Moreover, smoke and fire are also treated as physical threats. To get rid of physical threats, deterrent, detective and preventive controls are used.

Role of Artificial Intelligence (AI) in the Domain of Information Security

Artificial intelligence (AI) is a collection of technologies enabling machines and computers to learn, reason, and perform tasks that usually require human intelligence. Artificial intelligence is used in numerous areas involving, but not limited to, data analytics, object categorization, and manufacturing. There are many examples of AI e.g. machine learning (ML), deep learning, and natural language processing (NLP) etc. Moreover, AI has a crucial role to play in maintaining information security by aiding to detect, respond to, and prevent various cyber threats (threats to information assets by using internet). Furthermore, AI has important roles to play in vulnerability management management (it can assist in

in identifying vulnerabilities in networks and systems), threat detection (it can analyze network traffic, user behavior, and system logs to detect suspicious activities), incident response (by automating the procedure of detection, analysis, and mitigation of threats, thereby, reducing the response time and lessening the potential impact of a security breach), behavior analytics (it can create behavioral models for users, devices, and applications, and identify deviations that indicate any malicious activity), and reducing human errors.

Conclusions and Recommendations

Information security is not only the security of data but it includes data/database, and applications that can process this database. Moreover, it also includes operating system, hardware, internal network, perimeter devices (routers) and the external network (internet). The effective and efficient IT/IS Auditor should be knowing all these factors from start to end i.e. from external network to perimeter device; perimeter device to internal network; internal network to desktops; desktops to operating systems; operating systems to applications; and finally, applications to databases. Finally yet importantly, use of AI can bolster the process of maintaining the information security efficiently and effectively.

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TRANSFORMATION OF EXTERNAL AUDIT IN EXTRAORDINARY TIMES: THE CASE OF THE COVID-19 PANDEMIC

Abstract

The crisis environment caused by the Covid-19 outbreak, which was declared as "pandemic" by the World Health Organization on 11 March 2020 and affected the whole world in a short span, has affected business life and all its practices as well as individuals, and has made it necessary to implement unconventional methods and processes. In this context, the sustainability of auditing activities, particularly external auditing carried out by the Supreme Audit Institutions in the public sector, has made it unavoidable to shift away from traditional working methods and tools and toward remote auditing, which has been developed as a form of remote working, and thus to place more emphasis on the phenomenon of digitalization, which is one of the natural components of remote auditing. When we look at the big picture, the extraordinary conditions caused by the Covid-19 outbreak have accelerated the digital transformation of external auditing as an external factor. The aim of this study is to evaluate how external auditing undertaken by supreme audit institutions has changed in the context of the Covid-19 pandemic, using specific data and application examples from supreme audit institutions of our country and others.

Key Words: Covid-19, External Audit, Remote Audit, Digital Transformation in External Audit.

1. Introduction

Auditing is a dynamic organism that cannot resist change and transformation due to this feature. Starting from this point, functionally, auditing is a tool for triggering change and transformation that

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is generally not possible on its own but has become unavoidable in the face of current conditions, via the diagnoses it makes on the static structures that constitute the subject of auditing, as well as the outputs it generates.

It is unthinkable that both the audit activity and the change and transformation functions it performs may occur without the stimulating effect of some external forces. Because it is nearly impossible to perform the audit activity, which is a global phenomenon and is widely accepted as a basic requirement for the existence of almost every type of structure or formation, regardless of whether it operates in the public or private sector, has a legal personality, or what the audited structure's field of activity is, in a healthy manner by isolating itself from the world it is in.

Extraordinary circumstances necessitate the development of extraordinary practices. An obvious example of this condition occurred during the Covid-19 outbreak, which was labelled a "pandemic" by the World Health Organization (WHO) on 11 March 2020 and affected the entire world for a long period. Under such major outbreak conditions, daily life has to adapt dramatically. The methods intended to prevent the outbreak from spreading, such as complete closure, social separation, and quarantine protocols, have transformed practically everyone's family, professional, and social lives (Ministry of Industry and Technology and TÜBİTAK, 2021, 102).

From a business perspective, the current economic climate is the most challenging one since the Great Depression of the 1930s due to the contraction experienced in sectors in general, exceeding 20% (Selimoğlu & Saldı, 2021, 8). In this case, the sustainability of the auditing activity, a significant part of which is carried out in a way that is dependent on people, has made it inevitable to implement some extraordinary methods and processes.

Some procedures have been put in place to adapt audit work to the pandemic conditions. Institutions with more prepared infrastructure, human resources, policies and procedures, and more established ways of doing business, habits, and cultures have undoubtedly had an advantage over others in terms of their ability to act during such times (Deloitte, 2020, 2). In this context, while it can be argued that these actions were carried out more quickly and effectively in the old supreme audit institutions (SAIs) with strong institutional capacity and an established audit culture, the outputs required by legal obligations could be produced even in the first year of the pandemic in almost every SAI.

Although some disruptions have undoubtedly occurred, the SAIs have successfully passed the exam under pandemic conditions, and, thanks to the practices introduced on this occasion, along with the updates made in the audit activity, results that can be considered effective, economical, and efficient have finally emerged (EUROSAI, 2023, 1). As a result, a new trend of change and transformation has emerged in auditing.

2. Effect of Covid-19 Pandemic Conditions on the Continuity of SAI Activities

Although the continuation of audit activities under the unpredictable and devastating conditions of the Covid-19 outbreak does not seem to be a high priority at first glance, external auditing has not taken a back seat. On the contrary, it has been deemed necessary for all external auditing stakeholders to examine and report whether public expenditures made under extraordinary conditions caused by the pandemic, particularly those related to the fight against the pandemic and carried out urgently, were carried out in accordance with legislative provisions or with sufficient performance, even at a minimum level (EUROSAI, 2021a, 7). For example, 34% of EUROSAI member SAIs have received and agreed on specific proposals or requests from their governments or parliaments regarding the audit of Covid-19 related expenditure. An even larger number of SAIs have held discussions with external audit stakeholders on this issue (EUROSAI, 2021b, 17).

External auditing conducted by SAIs is a fundamental component of effective public financial management and good governance, and since the work of SAIs helps to maintain strong state-society relations, it is unthinkable for SAIs to wait without taking on any role in a situation where the state and society make joint efforts in cooperation, such as in Covid-19 pandemic (Hellevik et al., 2023, 1). The most critical role undertaken by SAIs is to monitor that government actions are transparent and accountable in combating the pandemic and that interventions leave no one behind. In this context, the scope of external audit work carried out includes, in particular, government support measures and procurements, as well as healthcare costs (INTOSAI, 2021, 22).

Considering the nature of the role undertaken, it should be appreciated how critical external auditing has been during the pandemic and how its workload has increased both qualitatively and quantitatively. Indeed, survey studies[2] conducted by the European Organization of Supreme Audit Institutions (EUROSAI) show the following for the pandemic conditions:

- Over 95% of SAIs had the capacity to plan their audits despite remote working under the pandemic conditions,
- 90% of SAIs did not have decreased workload due to pandemic,
- Over 85% have devoted some of their human and financial resources to Covid-19 audits.

And in this way, external audit activities have effectively continued (EUROSAI, 2021b).

Given that it is almost impossible for SAIs to reach the aforementioned level of statistics if they continue their external audit activities with their usual working methods in the pandemic environment, it has become inevitable to implement working methods and tools outside of the

[2] *A survey was conducted among EUROSAI member SAIs in January and February 2021 with the participation of 32 members, including the Turkish Court of Accounts, on the working effectiveness of supreme audit institutions under the Covid-19 pandemic conditions, and the results were published as a report.*

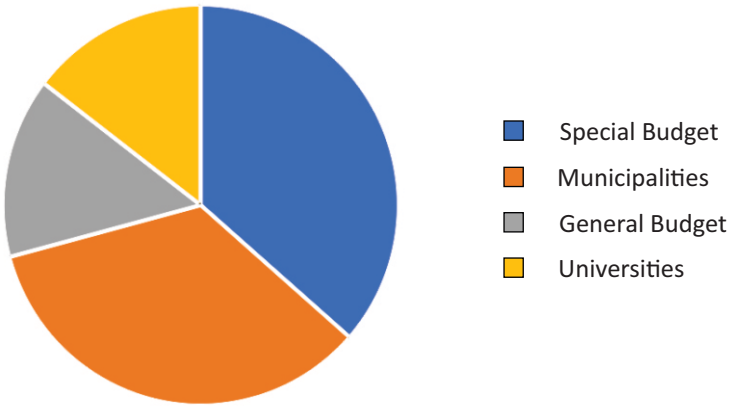
routine and adapt them to auditing in order to reach the optimum level, and to revise the existing ones. It is precisely for this reason that the auditing process, which started with remote working, first developed the concept of remote auditing and then paved the way for digital transformation in auditing. As a result, the Covid-19 pandemic accelerated the transition to remote auditing and digitalized working methods that were already being planned (EUROSAI, 2021c, 4).

2.1. Transition to Remote Working and the Concept of Remote Auditing

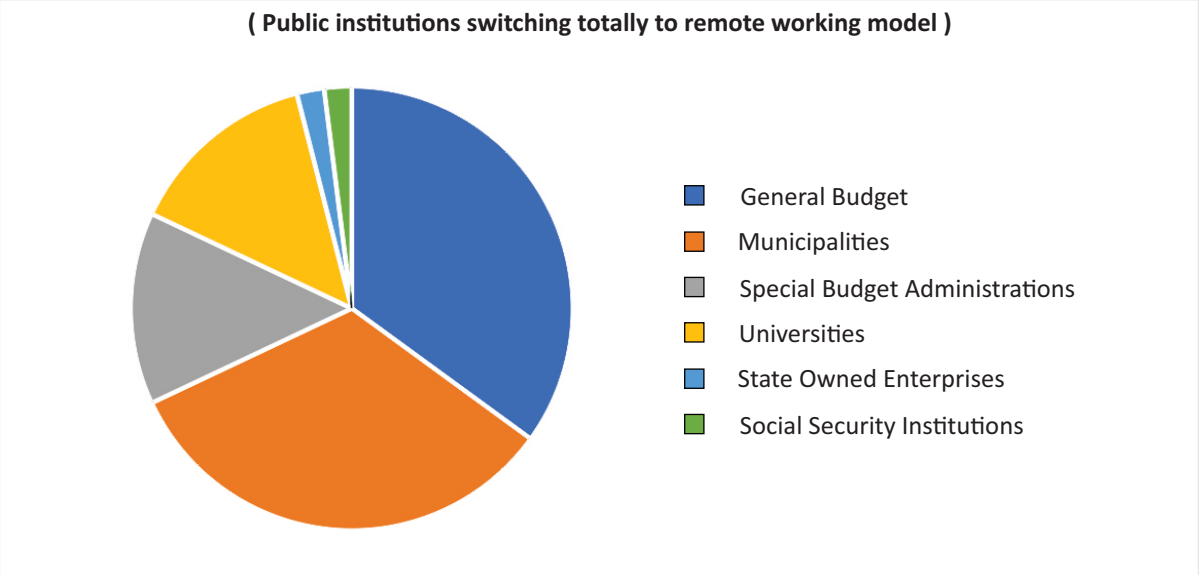
The Covid-19 outbreak has put employees' health and business continuity at the highest risk in public institutions (Ernst & Young, 2020a, 7). One of the most important attempts to reduce these hazards is the widespread use of remote working (INTOSAI, 2021, 4). The authorities charged with dealing with the pandemic have supported remote working in almost all business fields deemed suitable (INTOSAI, 2021,14). This phenomenon can also be observed in the public sector. To be more specific, 89% of services were effectively delivered under the extraordinary conditions of the pandemic environment using the model of remote working without interruption for extended periods of time at public institutions. However, public institutions and organizations still need to be flexible, dynamic and adaptable for all situations, including those faced with Covid-19. With well-designed implementation and management principles, remote working can be at least as effective as working in the office (Ministry of Industry and Technology and TÜBİTAK, 2021, 102). In this regard, it has been seen that firms that entered the pandemic environment with a more prepared technology infrastructure and a remote working practice may respond rapidly and reduce interruptions during the shift to remote working (Deloitte, 2020, 3).

The research conducted so far show that during the pandemic, special budget administrations and local administrations mostly used the rotational remote working model, whereas general budget administrations were able to switch entirely to remote working.

(Public institutions switching to rotational remote working model)



(Ernst & Young, 2020a, 15)



(Ernst & Young, 2020a, 15)

In this new business model, built on the principle of remote working, employees continue to carry out the daily works their houses thanks to the technological equipment allocated to them and strive to contribute to the functioning of the organization they are in (Selimoğlu and Saldı, 2021, 11). Undoubtedly, this concept has undergone a challenging modification process before it can be effectively implemented. Because the decline in employee motivation caused by the unpredictability of the pandemic's course, the psychological pressure that comes with the fear of isolation, the passiveness of communication due to working outside the office, and the resistance to insisting on returning to traditional working methods fed by the weakness of the ability to adapt to current technological tools have been the impediments to this adaptation process (Selimoğlu and Saldı, 2021, 12).). Apart from these, some structural factors such as not having the appropriate and sufficient capacity for remote working, data security, network security, system security and ultimately cyber risks arising from these can make it difficult for organizations to adapt to remote working (Deloitte, 2020, 2). At this point, those in administrative positions as decision-makers have been responsible for ensuring that their organizations continue to function and that everyday tasks are not disrupted, by developing proactive policies. As a matter of fact, one of the lessons learned from the Covid-19 outbreak is that effective leadership is more crucial than ever (Ernst & Young, 2020b, 3).

One of the first challenges that all SAIs should address during such a major crisis is the need to be flexible and agile (INTOSAI, 2021, 13). Following the acceptance that different working methods should be developed under pandemic conditions, SAIs recognized the importance of proactive policy making, and as a result of this understanding, the notion of "remote auditing" was developed and gained widespread use. In the pandemic scenario, 84% of SAIs in the EUROSAI region have carried out remote audits, with video conferencing/screen sharing technologies, video/ document sharing software, and the cloud technology being the

most commonly used tools (EUROSAI, 2023, 32).[3]

Remote auditing under the conditions of the Covid-19 pandemic refers to obtaining remote audit evidence from public entities that continue their operations under full closure conditions while SAIs continue their operations under the same conditions. The working methods developed in this context are the most important defensive reflex of SAIs against the effects of the Covid-19 pandemic. Two important points that should not be overlooked here are the slowdown of some audit processes that normally proceed quickly and the questioning of the reliability level of audit evidence (EUROSAI, 2021a, 7). In order to minimize such risks, cloud-based virtual applications were developed in the new normal period to make data transfer fast and reliable (Selimoğlu and Saldı, 2021, 12). In addition, cloud computing technology is generally one of the leading tools that can help organizations facilitate remote working practices (Ministry of Industry and Technology and TÜBİTAK, 2021, 102).

First and foremost, remote auditing has eliminated the requirement for on-site audits by supplying the essential documents from any distance without the need to travel (EUROSAI, 2023, 2). Furthermore, auditors gained the opportunity to work with flexible hours, saving both time and resources. In this regard, the four main advantages of remote auditing are as follows:

- Saving audit time,
- Real-time and instant auditing,
- Elimination of delays,
- Reducing reporting time.

(Selimoğlu and Saldı, 2021, 12).

The motivation for conducting external audits remotely is not limited to these advantages alone. First of all, the pandemic conditions have urged SAIs to do so.

However, surveys conducted with EUROSAI member SAIs have also shown that some challenges have been experienced when conducting external audits remotely under the pandemic conditions.

Main challenges are as follows:

- Ensuring continuity while SAI staff work remotely,
- Revising audit plans and adapting expenses associated with the Covid-19 epidemic to the audit plan, as well as giving recommendations to audited entities in this regard.
- Having a technology infrastructure that allows for remote work,
- Obtaining audit evidence remotely without on-site audits,

[3] *In May 2023, a survey was conducted by the project group under the EUROSAI umbrella with the participation of 20 countries, and the results were published in the form of a report. Therefore, the ratios and other information provided represent the responses of the EUROSAI members who participated in the survey.*

- Preventing loss of staff motivation and loyalty to the organisation as a result of remote working,
- Adoption of internal communication and working practices.
- Ensuring the protection of sensitive and secret information while accessing it remotely.

These have been the difficulties experienced by SAIs in external auditing (EUROSAI, 2021c, 4). As it can be seen, a significant part of the issues reported are related to remote auditing. In order to overcome these difficulties, specific workshops on human resources management under remote working conditions were organized, especially for the management staff of SAIs (EUROSAI, 2021c, 25).

In addition to all of this, communication has become an essential component in maintaining the idea that public administrations, society, and other stakeholders can rely on SAIs even in extreme circumstances. One of the actions taken in this regard is the establishment of a specialized section related to Covid-19 issues on SAI websites (EUROSAI, 2021c, 4).

It is critical that SAIs, whose tasks and authorities are governed by law and undertake audits in the public sector, develop a legal foundation for remote auditing. Although SAIs are normally not subject to any legal restrictions that limit remote auditing, several authorization issues have been reported, particularly in direct access to databases providing the data needed by auditors to access electronic data. Due to the lack of legal regulation, many SAIs have experienced authority problems in connecting directly to the information technology systems of audited entities, and some special regulations were needed (EUROSAI, 2021c, 4). On the other hand, as per the results of a survey conducted with the participation of 20 SAIs in the EUROSAI region, SAIs unanimously agreed that there is still room for improvement in the legal and regulatory framework to support digital transformation and clearly indicated the need for specific regulations in this area (EUROSAI, 2023, 5).

Despite some difficulties, the method of accessing the information required by external audit to obtain audit evidence has changed, but there has been no significant decrease in quality; in fact, as procedures for data sharing have become established and implemented on an active and regular basis, the transparency of the information has increased (EURSAI, 2021c, 7). In addition, it was stated that more than 70% of EUROSAI member countries experienced an increase in information quality compared to the pre-Covid-19 period and that unnecessary details could be eliminated (EUROSAI, 2021b, 4).

It seems that the business models developed due to the Covid-19 pandemic have permanently spread to the period we are in, which is called the “new normal”. For most organizations, returning to the working methods of the pre-pandemic period is no longer even an option. In this context, as it is clear that SAIs, as part of the business world, cannot completely abandon remote working and remote auditing as work methods; those who can make progress on issues

related to human resources, business continuity and cybersecurity will make a difference. In addition, it would be beneficial to decide on a suitable mix of remote working and office work and to allow the workforce to better balance their private and professional lives (ISACA, 2020).

2.2. Acceleration of Digital Transformation in Auditing through the Catalyst Effect of Remote Auditing Practices

The Covid-19 pandemic has caused questions about the effectiveness of many traditional procedures around the world, resulting in a powerful wind of change and revolution. From the standpoint of the business world, it is clear that practically all businesses are reconsidering their long-term and strategic investments following the epidemic and are currently increasing spending in communication tools and technology. In terms of business practices, automating a substantial amount of routine and manual work and so reducing the use of human resources has gained popularity. When we go a step further, it is evident that very complex jobs may be accomplished quite easily using artificial intelligence. In the face of these realities, we should acknowledge that one of the legacies left by the Covid-19 pandemic is the acceleration of the transition from carbon workforce to digital workforce in the world (Deloitte, 2020, 3).

Public institutions and organizations have also reviewed their business processes during this period and prioritized digital transformation in the delivery of public services in general (Ernst & Young, 2020a, 5). The background to this is the need to quickly resort to remote working methods to ensure the provision of essential services in the face of the sudden spread of the Covid-19 outbreak, and with the momentum this situation has provided, public institutions and organizations have essentially had an opportunity to push themselves into a digital transformation. This also supports the ability of public institutions and organizations to benefit from the insights of big data, increase public experience and trust, and increase business flexibility and efficiency (Ernst & Young, 2020a, 18). To illustrate, a micro-level study showed that the Covid-19 pandemic had significant (81.3%) impacts on the digital transformation of local governments (Ministry of Industry and Technology and TÜBİTAK, 2021, 102).

The remote audit application, which has become a mechanism for ensuring the continuity of external audit in the pandemic environment, has accelerated the digital transformation steps in auditing that SAIs have already initiated, and, albeit involuntarily, much more importance and resources have been assigned to this area than planned in the pre-pandemic period. Thus, the widespread use of remote auditing due to pandemic has served as a driver for SAIs' digital transformation efforts (EUROSAI, 2023, 30).

The digital transformation of auditing has become one of the top priorities of SAIs since the Covid-19 pandemic. It is possible to see traces of this situation even in the training activities carried out by SAIs since the beginning of this process. For example, information technologies, digital communication, remote working tools, data analytics and cyber security have become

new training topics for the staff of many SAIs. In fact, training on remote working has become an integral part of the staff training program in many SAIs (EUROSAI, 2021c, 7).

The contribution of remote auditing to digital transformation in auditing can be examined in two important aspects. The first is concerned with the evolution of communication within the SAI, with external auditing stakeholders, and with audited parties towards modern digital methods and tools, which can be considered an essential component of the management of remote auditing (EUROSAI, 2021c, 14). The other includes the digitalization of almost all stages, beginning with data transfer in order to implement the procedures in the auditing process itself, continuing with data analytics and classification of the obtained results, and concluding with the final audit report.

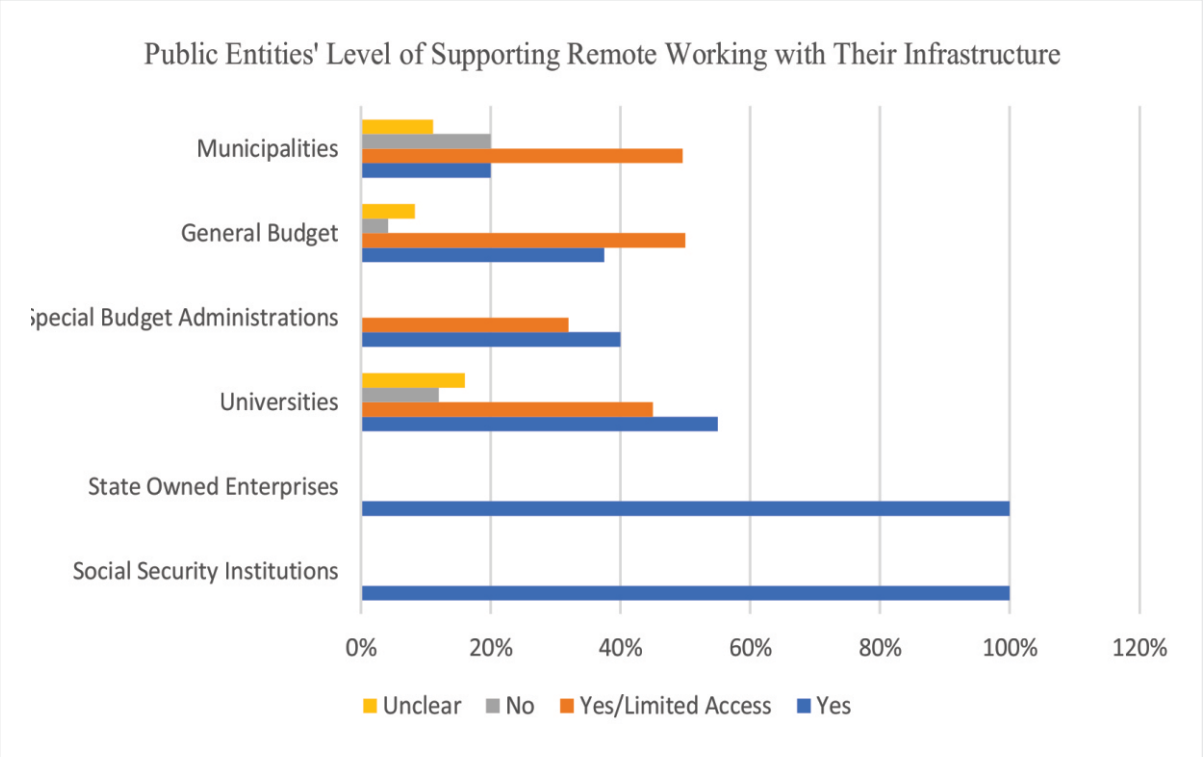
According to SAIs, main factors encouraging digital transformation are as follows:

- Increasing data volumes that cannot be processed by standard instruments and necessitate the deployment of new technical solutions,
- The introduction of new instruments that make audits more efficient,
- Increased speed in data and information transfer,
- Real-time data sharing opportunities,
- Global recognition of digital transformation,
- Digitalization of public administration,
- Pandemic constraints,
- Adoption of remote collaboration methods as a result of remote working requirements and increased digital proficiency of staff (EUROSAI, 2023, 39).

One aspect of digital transformation in auditing should focus on ensuring that the auditee has the appropriate infrastructure. Specific to the external audit by the SAIs, in principle, the information systems of the auditees should be equipped to provide the necessary access to auditors for remote audits, they should be able to provide accurate and reliable data for audit evidence without major disruptions, and they should have user-friendly modules to support the orientation of auditors. Accurate data generation by information systems is also critical when data is transferred directly from the auditee for data analytics.

A study was conducted on EUROSAI member SAIs to concretize the critical role played by the auditee in the digital transformation of auditing. It sought an answer to the question of whether SAIs have ensured effective cooperation with stakeholders during the Covid-19 pandemic. It concluded that the systems of the auditees (document management, accounting, filing, information technologies, etc.) are appropriate and usable, and around 25% said “completely yes” and 60% said “partially yes” that the systems can be used for remote auditing in a pandemic (EUROSAI, 2021b, 11). However, many SAIs also reported shortcomings in secure digital communication from auditees (EUROSAI, 2021b, 28).

In a similar vein, the Ernst & Young has put forward a very important study on the situation of public entities in Türkiye. The results of this study reveal the extent to which public entities under general government and state economic enterprises support remote working with their infrastructures, albeit with limited access.



(Ernst & Young, 2020a, 16)

The result of this study is meaningful in determining which public entities can be selected as pilots and which public entities should be encouraged to allocate resources to become more suitable for remote auditing as the digital transformation process in auditing moves to new stages.

On the other hand, every digitized data brings security risks with it. Cyber-attacks, which in the past were carried out with simpler methods, simple goals, and by people with certain competencies, have now become state-level, automated, more frequent, complex, destructive, and target-oriented (Presidency Digital Transformation Office, 2023). In parallel, one of the biggest handicaps of the digitalization process brought about by remote working has been to guarantee cyber security. A survey of chief information security officers (CISOs) in 7 different countries conducted by Ernst & Young showed that although 60% of companies are subject to cyber-attacks, 82% of the strategic plans of the top management of companies do not even include this issue (Ernst & Young, 2020a, 7).

Cyber security, which has become more important with the phenomenon of data security and digital transformation, cannot be ignored for SAIs, considering that data privacy is at an

extreme level in terms of the nature of their work. In the case of our country, the Presidential Circular on Information and Communication Security Measures, which entered into force after being published in the Official Gazette dated July 6, 2019 and numbered 30823, mandated the implementation of a series of security measures in this regard. Pursuant to the provisions of the said Circular, the Information and Communication Security Guideline was published on 27 July 2020 to ensure that public entities fulfil the requirements of these security measures (Presidency of the Republic of Türkiye, 2021, 7). It is essential that these regulations are included in the TCA's projection of the digital transformation of auditing. In this context, the TCA completed its efforts to comply with the Guideline and carried out an audit activity on compliance with the Guideline (Turkish Court of Accounts, 2023, 12).

The following can also be recommended to guarantee cybersecurity in the digital transformation process:

- Cyber security should be positioned as a key value provider in the digital transformation process,
- A relationship of trust must be established with all functions within the organization,
- Focus on fit-for-purpose governance structures,
- Awareness of cyber security risks should be raised,
- Processes related to cyber security should be included in the agendas related to corporate strategies (Ernst & Young, 2020b, 7).

In this context, one form of the digitalization process, which has accelerated with the Covid-19 pandemic and become an inevitable phenomenon, has manifested as the concept of remote auditing in the external audit of SAIs, as in almost every sector in business life. Despite the many beneficial aspects of this digitalization process and the widespread use of remote auditing, which is still at its infancy, what we have learned so far is that there is still a long way to go to overcome obstacles such as making institutional infrastructures available, capacity building, data security, and guaranteeing cyber security as a component of it (Köse and Polat, 2021, 21).

In these processes, SAIs, which can take quick action and have an agile and dynamic management approach, will undoubtedly increase the quality of their services by finalizing this change and transformation process faster.

Finally, at the end point of the digital change and transformation process, as agreed by 70% of SAIs in a survey conducted in the EUROSAI region, the external audit model shaped by methods, where the human factor becomes very limited and artificial intelligence based on machine learning is actively engaged, will be the main agenda item of SAIs, if not today, then in the not-too-distant future (EUROSAI, 2023, 22).

3. Experience from External Audit Conducted Under Covid-19 Pandemic Conditions

External audit, which is an integral part of the right to budget and is usually authorized by the constitutions of countries, has continued to be carried out even in times of the greatest crisis. A clear example of this was seen in the external audit work carried out by the commission established to control financial transactions during the War of Independence. As a matter of fact, this was also the case under the conditions of the Covid-19 pandemic, which left a legacy of many experiences, positive or negative, but in any case, which can be guiding in possible future crisis periods.

Here is a list the lessons learned from the Covid-19 pandemic in general, which are also relevant to the audit activity:

- Remote working can be just as effective as in the office.
- The digitalization of business processes and the transition from manual working methods to automation have increased efficiency and effectiveness.
- It is essential to keep communication strong from the highest executive level to the lowest level.
- The sustainability of remote working is strongly dependent on technological infrastructure.
- Procedures for remote working need to be clarified.
- The importance of planning for the continuity of the work carried out and its resilience in crisis environments has been realized.
- The importance of being adaptable and prepared for new risks has been recognized (Ernst & Young, 2020b, 3).

The experience of the SAIs from the Covid-19 pandemic is similar to these and has been fed by many failures in the background and good practices developed against them.

3.1. External Audit Experience of SAIs in Other Countries under Covid-19 Conditions and Examples of Good Practices

Various international organizations of which SAIs are members, notably the International Organization of Supreme Audit Institutions (INTOSAI), have come together to address the current situation and ensure the continuity of external audit in accordance with the International Standards For Supreme Audit Institutions (ISSAI) through platforms called working groups or task forces since the early period of the pandemic, and many documents or examples of good practices have been shared to provide guidance. Of the many outputs, it will be more useful to selectively provide examples, focusing in particular on different topics.

Canadian Audit and Accountability Foundation: Eight Tips for Managing Auditee Relations in the Covid-19 Era

In parallel with technological developments, it has become more possible for auditors to work remotely. In the context of the Covid-19 crisis, maintaining relationships with auditees while conducting remote audits requires a greater degree of intuition and interpersonal skills than in the past. To help make this easier, the Canadian Audit and Accountability Foundation has published the following eight tips:

- Be certain: Review your risk assessment before starting any audit engagement, confident in the strategic direction of the auditing SAI on its behalf.
- Be aware: Conduct interviews while being aware of the duties and responsibilities of the responsible person to be addressed at the auditee.
- Be realistic: To avoid frustration and damage to relationships with the auditee, be realistic about the impact of any information requested in the audit on timelines and deadlines.
- Be informed: In a pandemic environment, try ways to obtain information in person to reduce requests for information from those responsible.
- Be Flexible: Since it is natural to experience delays in some cases in a crisis environment, it will be useful not to act with strict rules to ensure continuity of relationships in the audits.
- Be flexible: Being transparent with your auditee, especially in times of uncertainty and change, will help you build a foundation of trust.
- Be honest: Being open with the auditee about matters over which the auditor has full control will be of great benefit.
- Be human: Recognize that auditees are also continuing to operate under Covid-19 conditions and that their psycho-social well-being may be affected.

Communicating with auditees in an environment of uncertainty has always been challenging. However, if this period is embraced as an opportunity to become more familiar with the strengths and weaknesses of auditees, this can help to compensate for communication gaps to some extent (CAAF, 2020).

Russian SAI's Shares on the Impact of Covid-19 on Daily Life

The work of various international organizations and think tanks was regularly reviewed the Russian SAI and some compilations were made. For example, “The impact of the Covid-19 pandemic on education” focused on global trends in adapting educational needs to changing conditions and multilateral efforts in this regard. Under another heading, “National health systems' response to the Covid-19 pandemic”, the global threats to the health sector were examined and the joint efforts of various countries and multilateral international organizations were described. The review “Digitalization and cybersecurity in the context of Covid-19” have researched the publications on how recent digitalization trends have been affected by the pandemic and how technological advantages have been used worldwide to prevent the spread of the disease (INTOSAI, 2021, 9).

Audit Digitalization Initiatives of SAIs in Peru, Finland and Sweden

The Peruvian SAI has focused its digital transformation and innovative audit approaches on identifying corruption and functional fraud risks. In this context, the focus was primarily on emergency health programs and activities in the context of the Covid-19 pandemic. The developed mechanism also includes regular analysis of cash transfers. In addition, "Acquisition and Distribution of Computers and/or Electronic Equipment" and "Internet Services" were also examined. The Finnish SAI used data analytics to improve financial audits during the Covid-19 pandemic, taking into account the high level of digitalization in central government financial management (INTOSAI, 2021, 22). While the Swedish SAI was in the process of accelerated digitalization, it also considered the working environment of auditors. In order to keep auditors physically active, they were given appropriate time and incentives to socialize with their colleagues. In addition, ergonomic trainings were conducted and home office equipment was introduced (EUROSAI, 2021c, 22).

3.2. TCA's External Audit Experience under Covid-19 Conditions and VERA Application

Digital transformation in Türkiye is a phenomenon that has not been put on the agenda only due to the Covid-19 pandemic; it has already been strategically targeted and sustained in a planned manner, its development has been monitored nationally and internationally, and it has been placed under the responsibility of an office within the Presidency to take the initiative in all these processes.

For the TCA, digitalization first entered the agenda of strategic plans from a cyber security perspective with the Strategic Plan for the 2019 - 2023 period, without the impact of the Covid-19 pandemic.

The aforementioned Strategic Plan states that;

"*Today, as a result of the rapid digitalization and centralization of information, the security of information systems (Cyber Security) has become a high priority area all over the world. In this field, based on national and international standards, works have been initiated for the establishment of an 'Information Security Management System' that will cover the 'Information Processing Unit' and its processes in the first phase. After the completion of the work on IT processes and services, the Information Security Management System will be extended to other processes of the institution and will be maintained through periodic internal control and awareness trainings." (Turkish Court of Accounts, 2019, 45).*

However, the digitalization of audit initiatives at the TCA predates this. Especially with the introduction of the Business Intelligence and Data Analysis System (VERA) in 2018, most of the remote auditing functions, which were first tried by the SAIs in the pandemic period, were already functionally available to auditors in the TCA's audits.

VERA is used to analyse financial data subject to audit. In VERA, auditors have direct access to pre-designed static analyses. In addition, they can also perform detailed analyses from the analysis data resulting from static analyses, and it is also possible to perform analyses that have not been analysed before and that are at the auditor's disposal. (Turkish Court of Accounts, 2023, 10).

The VERA system, which is evaluated within the scope of big data analysis, aims to achieve the following (Turkish Court of Accounts, 2023, 26):

- Receiving the data required to be submitted by public entities electronically and presenting them to auditors,
- Determining the nature of the data to enable risk analysis,
- Defining the analyses that should be done as standard in auditing, developing audit scenarios for analysing accounting and non-accounting data,
- Improving audit effectiveness and quality by contributing to audit management and audit processes,

The analyses in the VERA system are mainly categorized as follows:

- Analysis of Personnel Expenditures
- Analysing Accounting Data with Computer Aided Auditing Techniques
- Municipality Risk Analyses
- Other Analysis Studies

The VERA application has been one of the successful examples of moving auditing from physical documents to the digital environment. Since the launch of the application, continuous improvement efforts have been carried out, errors in the system have been detected, and updates have been made to eliminate them. As a result, by the end of the first four years of the VERA application, the error level had been reduced by 40%, allowing for timely and appropriate data submission for the given analysis (OECD, 2023).

In the audits by the TCA, VERA has emerged as a very useful tool in terms of the remote auditing that has become widespread with the Covid-19 pandemic and the digitalization of the auditing that comes with it. To be specific, the total number of working hours spent by auditors on VERA has accelerated since the audit of the accounts and transactions of 2019, which was concluded under pandemic conditions, and this trend was maintained in the 2022 audits, which were conducted relatively free of pandemic conditions. On the other hand, in parallel with the infrastructure improvements, the number of public entities that can be analysed through VERA has increased every year since 2019, and this trend also continued during the 2022 audits. There has also been a continuous increase in the number of ready-made scenarios and analysis tools available to auditors through VERA. In addition, audit processes such as account area identification and sampling, which were previously performed manually, were included in

VERA, marking another stage in the digitalization of the TCA's audits.

4. Conclusion

Auditing always has the potential to trigger a movement of change and transformation. At the same time, auditing is also an activity that can move forward by taking strength from any wind of change and transformation that touches its sails and maintains its effectiveness to the extent that it can achieve this. Therefore, the audit activity has already been unable to remain indifferent to the digital transformation climate initiated by today's technological revolutions by necessity rather than choice (Köse and Polat, 2021, 35). On top of that, with the imposition of some extraordinary conditions caused by the Covid-19 pandemic, the digital transformation necessity in question has reached a vital level and thus the digitalization of the audit activity has gained momentum (Köse and Polat, 2021, 22).

The crisis environment caused by the Covid-19 pandemic made individuals as well as business structures question their habits, business conduct processes, corporate governance approaches, and innovation capability in their core business, and triggered change and transformation. With the presumption that it is vital to continue delivering the services they provide; SAIs have continued to conduct external audits amid the pandemic. They popularized new working methods under the name of remote working or remote auditing. Along with the revision in the working method, SAIs' external audits have been included in this change and transformation. On the other hand, in the first few years of the new normal, SAIs have been largely successful in producing audit outputs without a significant drop in qualifications. Thus, they have proved that it is on the right course towards change and transformation.

The typification of public expenditures according to the extraordinary circumstances caused by the pandemic and the hasty decisions and actions taken by public entities, regardless regardless of whether they are based on combating the pandemic or not, have caused the external audit procedures of SAIs to proliferate and become complicated with the impact of practices that exceed the standard. In addition, given the dependence on technological tools, which is an inherent part of remote auditing, all these factors have acted as catalysts to accelerate the digitalization of auditing.

Of course, as is the case with the application of any policy that seeks to go beyond the conventional, the transition to remote auditing and the digital transformation in auditing will also be subject to a number of setbacks and handicaps. The main ones are: adaptation to remote working, inadequate technological infrastructure and equipment, destabilization of work motivation due to being out of the office, lack of institutional capacity, legal ground gap and data security as one of the structural risks of digitalization, and failure to ensure cyber security. The only way to overcome all these is to have a flexible, agile, and dynamic leadership and management approach. An indispensable part of this understanding is to have a regular, effective and modernized communication mechanism inside the institution, with the auditees, and with all stakeholders of external audit.

Progress on remote auditing and the digital transformation of auditing is not only dependent on the institutional capacity of SAIs, but can only be fully realized if the auditees also have suitable infrastructures. Moreover, this is not only a matter of having suitable software or hardware infrastructure, but also involves cooperation in the deployment of advanced tools to minimize data security and cybersecurity risks, given the high importance of data privacy in external audit.

During the external audit work conducted under the conditions of the Covid-19 pandemic, SAIs gained a lot of positive or negative experiences and developed good practices. Undoubtedly, the knowledge gained from this experience will be a guide in similar crisis environments that may occur in the future (EUROSAI, 2023, 3). However, the biggest legacy of the Covid-19 pandemic for SAIs' external audits has been the integration of remote auditing and the acceleration of digital transformation in auditing. In the case of the TCA, the activation and dissemination of the VERA application in this period is one of its clearest examples.

In conclusion, although the digital transformation of auditing is still in the human-centric phase, routine and manual tasks have started to be roboticized due to accelerating factors such as the pandemic environment. Recently, with the trending of solutions with artificial intelligence, the discrimination of the human factor from business processes and the transition from carbon workforce to digital workforce have started to be voiced more and more loudly. As a reflection of these developments in external audit activities, the level of robotization of remote auditing and the effective use of digital workforce in audit processes will become one of the most critical performance parameters of SAIs in the future.

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