



FRAUD CONFERENCE MIDDLE EAST

Forensic Auditing: A Public Sector Perspective

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United Nations



Forensic Auditing: A Public Sector Perspective

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Profile of the Speaker

Education

PhD, MBA , CFE, CIA, CISA, CRISC, CRMA, CIPSFR



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Experience

- 25 years of public sector auditing
- Provincial head of audit; and assisted a number of legislative audit oversight committees.
- Head of a Centre of Excellence in *Audit of Frauds, Fraud Detection Techniques, and Forensic Audits*; and authored several case studies and research papers on subject.
- Capacity building expert to the Supreme Audit Institutions in: Seychelles (*Information Technology auditing*); Nepal (*Procurement and Public Works*); and Uganda (*Value for Money auditing*).
- External Audit of the United Nations-Procurement Division, New York; 'IT security in SAP'-IMO, London; and WIPO, Geneva.
- Capacity building of audit professionals from over 20 countries in Audit of Frauds, Performance auditing, and Information Technology auditing.

Presentation Plan

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Perspectives of Fraud in the Public Sector

2

The Magnitude of Losses

3

Institutional Arrangements in Place for Fighting Frauds in the Public Sector

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Traditional/Statutory Audit Versus Forensic Audit

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Challenges and the Way Forward

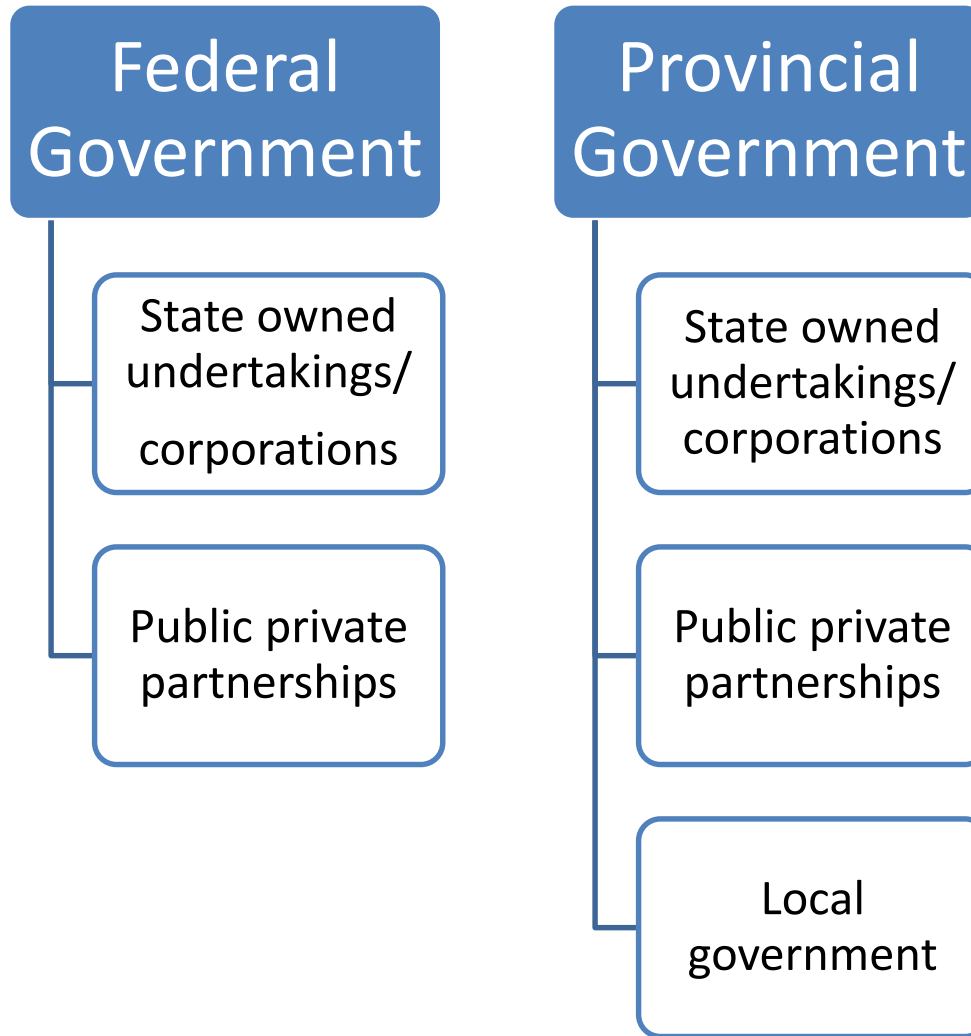
Omnipresence of Fraud!

- Fraud is omnipresent and it is as old as human civilisation!
- *Kautilya*, ancient Indian statesman (2nd century B.C)- well known for his famous treatise on statecraft and policy, '*Arthashastra*', *described* in detail
 - forty different ways in which state funds could be embezzled during his time; and
 - laid down an elaborate punishment procedure.

“Whether one wishes or not, honey or poison kept on tongue gets tasted eventually. So it is, corruption and wealth accumulation by government officials. It is highly likely that they do accumulate more or less wealth by corruption in their tenure.”

– *Kautilya*

Typical Public Sector Audit Jurisdiction



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The Magnitude of Losses

ACFE

- Approximately two-thirds of the cases reported targeted privately held or publicly owned companies and these for-profit organizations suffered the largest median losses among the types of organizations analysed, at \$180,000 and \$178,000, respectively.
- Of the cases involving a government victim, those that occurred at the federal level reported the highest median loss (\$194,000), compared to state or provincial (\$100,000) and local entities (\$80,000).
- (ACFE 2016 *Report to the Nations on Fraud and Abuse*)

PwC

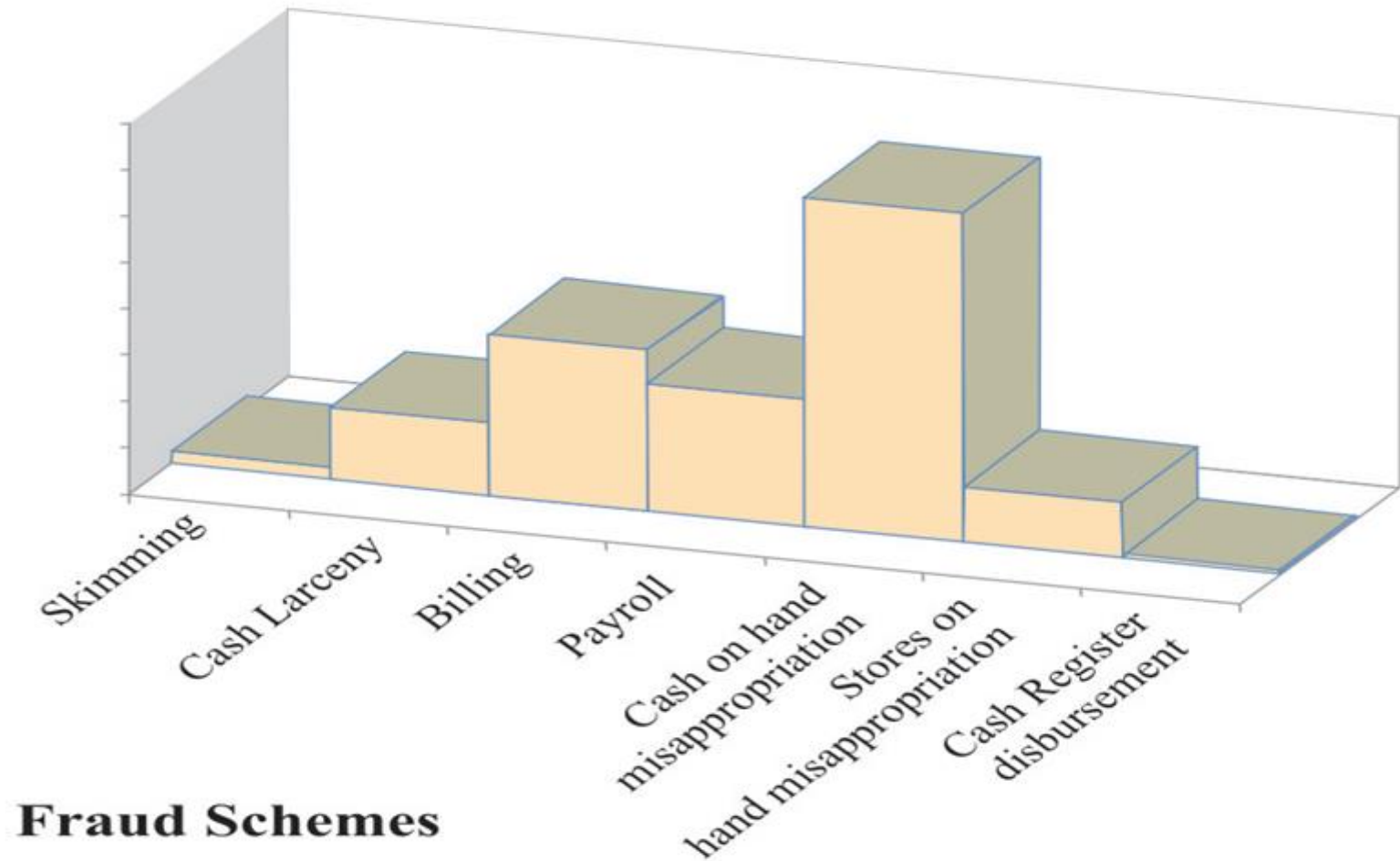
- 41 percent of the respondents from government/state owned enterprises reported that their organisations had suffered economic crime in the last 12 months.
- The same survey shows that: (a) procurement fraud has more than doubled in the public sector since 2012; and (b) 24 percent of the government organisations surveyed worldwide suffered losses in the past 24 months that were in excess of \$1 million.
- (2014 *PwC Global Economic Crime Survey*)

My Study

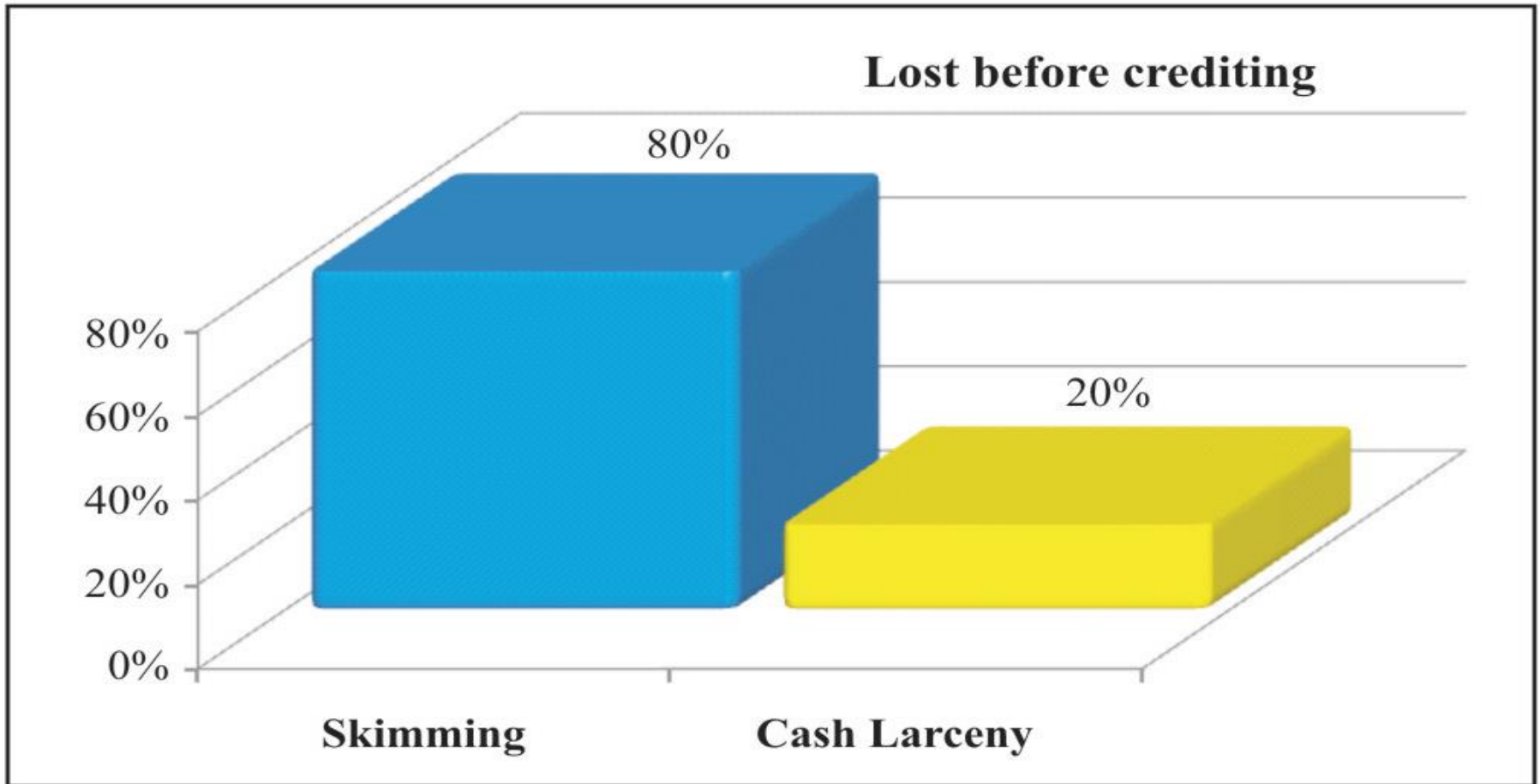
- Based on secondary data;
- Losses of over \$40 million in five years;
- Almost every department of the government had suffered frauds;
- The perpetrators were insiders in 80 percent of the cases reported;
- Cash-on-hand misappropriation was the most frequently followed scheme; and
- 80 percent of the revenue was lost before crediting (skimming); and the primary (61 percent) reason for the control weaknesses was 'not following the prescribed checks'.
- <http://rtinagpur.cag.gov.in/research-paper.php>

Results of My Study...

A Summary of Fraud Schemes Followed



Results of My Study *contd.*, Revenue Loss



Asset Misappropriation

Cash

Non-Cash

Skimming

Larceny

Foodgrains

**Others
(Bitumen,
Stone chips
etc.,)**

**Fraudulent Disbursement of
cash**

Billing

Payroll

**Cash on hand
Misappropriation**

**Cash Register
disbursement**

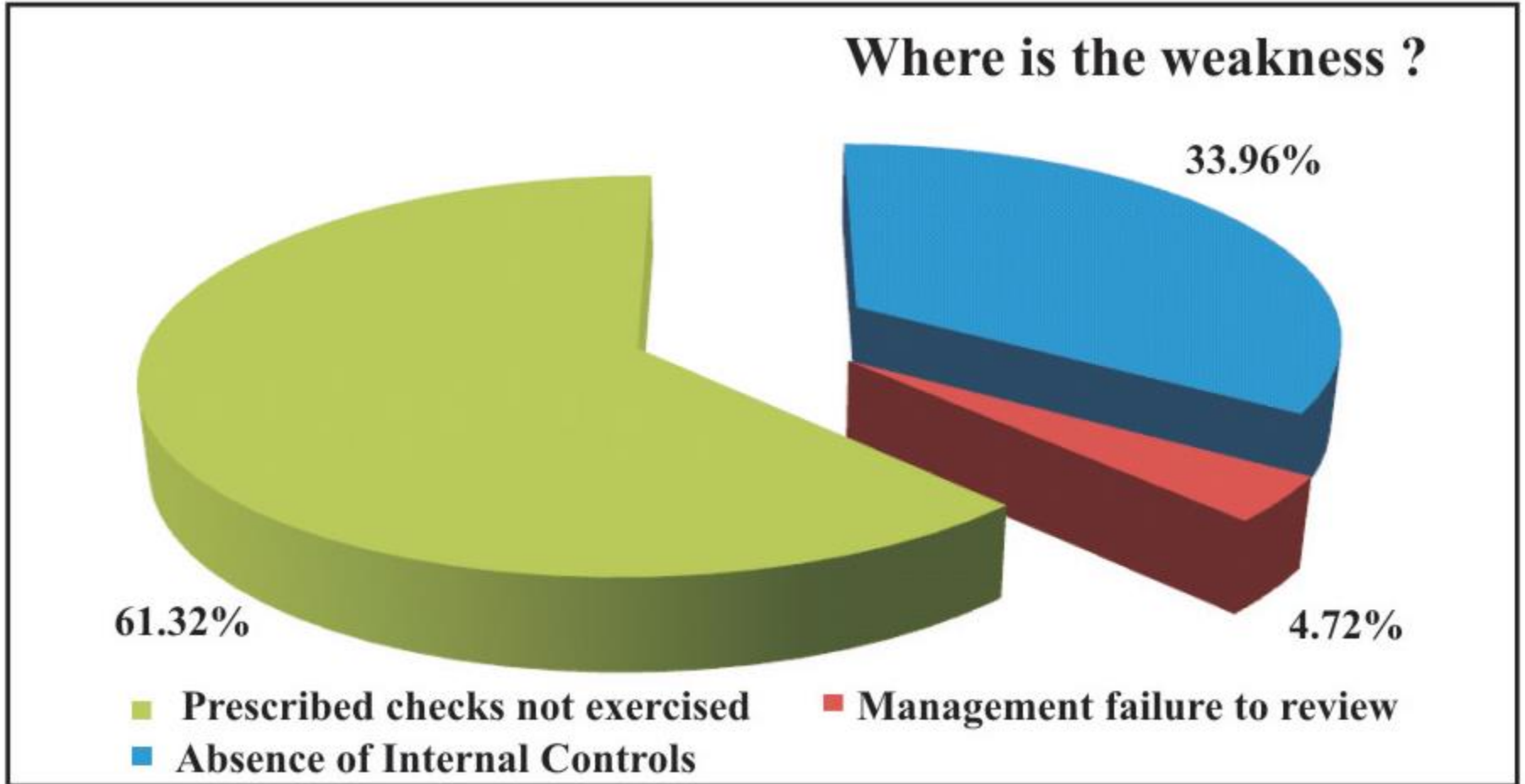
Theft

Pilferage

**Physical
verification
failure**

**False indents/
gate passes**

Results of My Study *contd.*, Control Weaknesses



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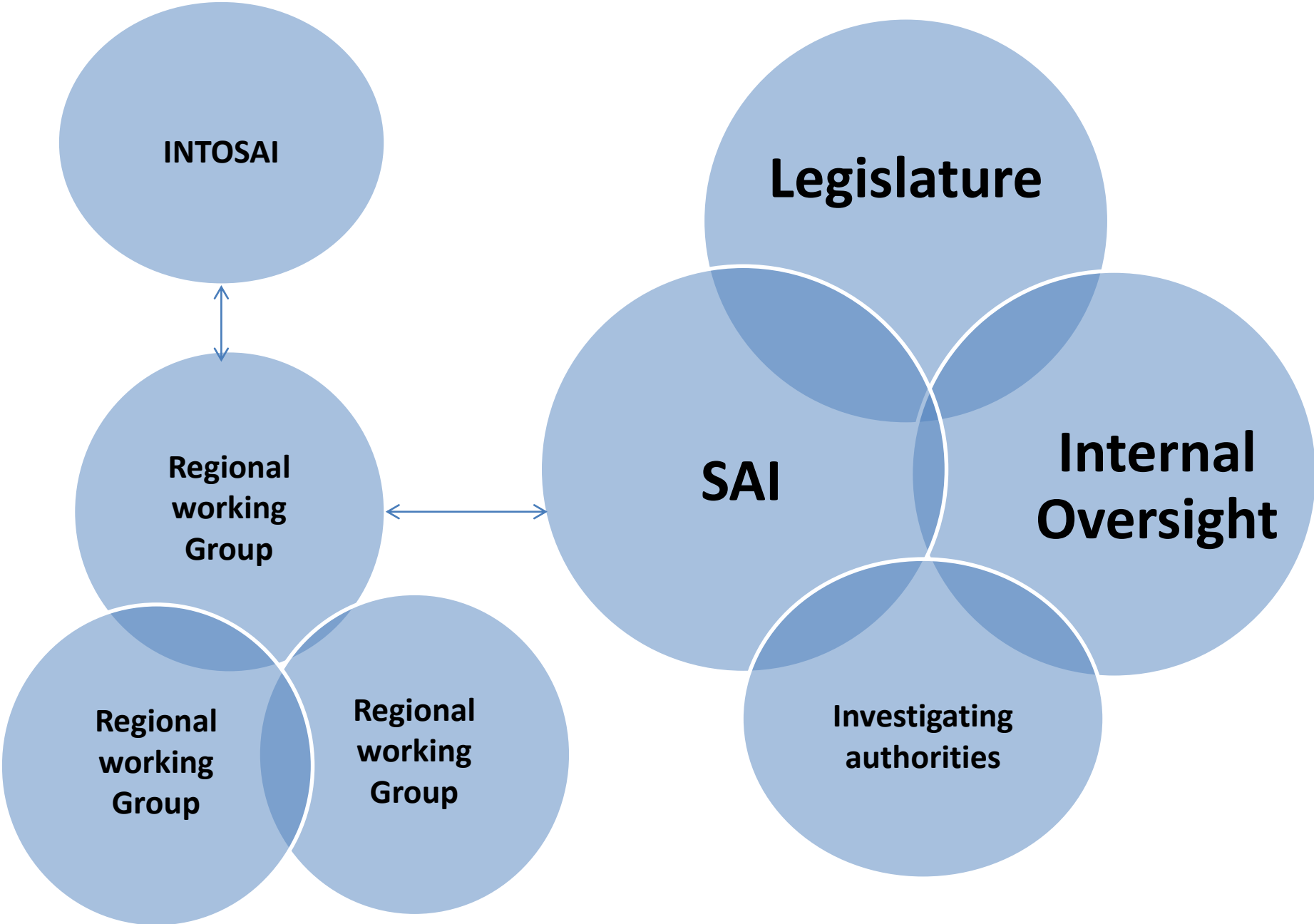
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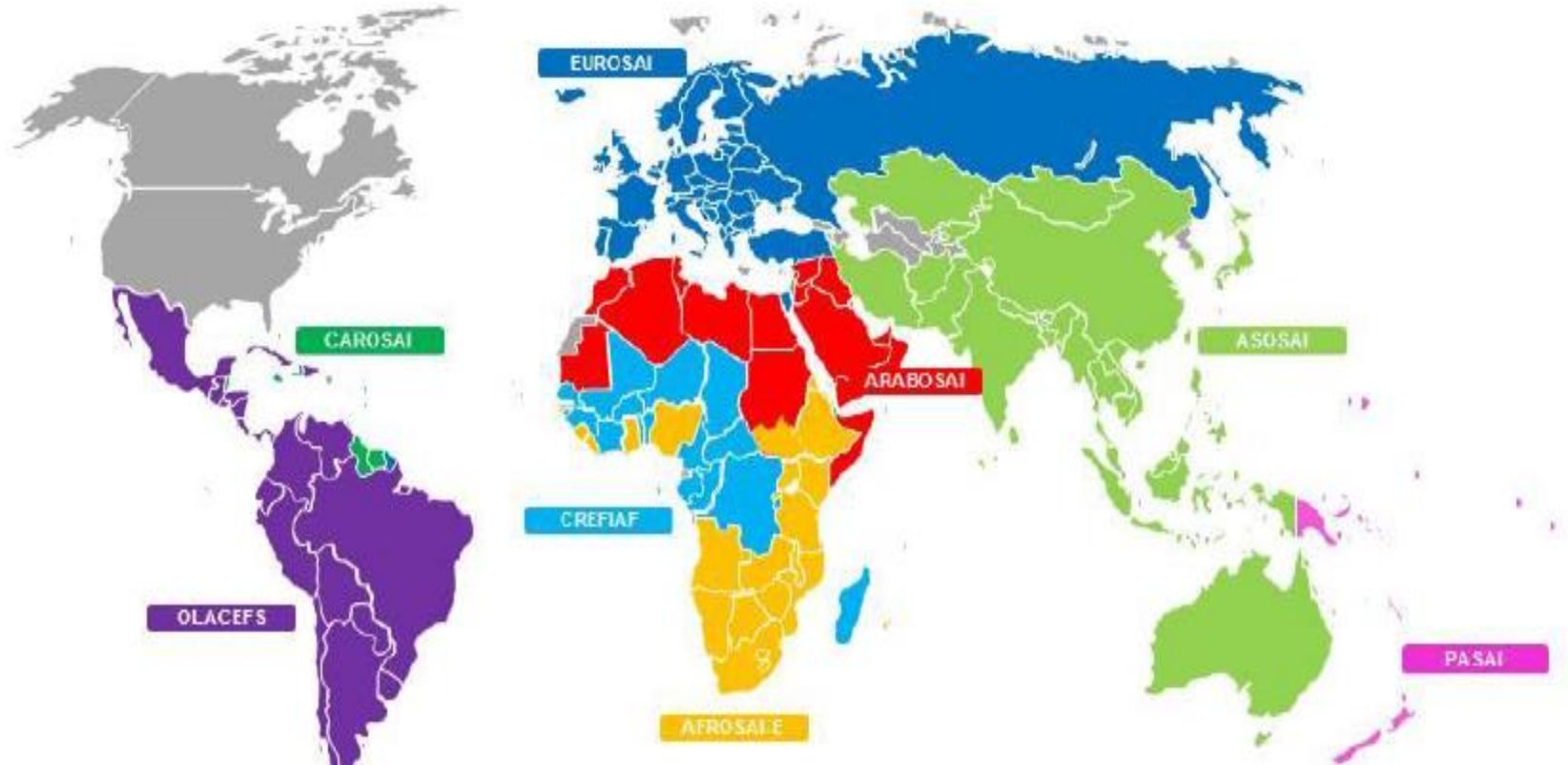
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Challenges and the Way Forward



INTOSAI Regional Working Groups



- **OLACEFS**-Organization of Latin American and Caribbean Supreme Audit Institutions
- **CAROSAI**-Caribbean Organisation of Supreme Audit Institutes
- **EUROSAI**-European Organization of Supreme Audit Institutions
- **CREFIAF**- Supreme Audit Institutions of French-speaking sub-Saharan African countries
- **ARABOSAI**-Arab Organization of Supreme Audit Institutions
- **AFROSAI**-African Organization of Supreme Audit Institutions
- **ASOSAI**-Asian Organization of Supreme Audit Institutions
- **PASAI**-Pacific Association of Supreme Audit Institutions

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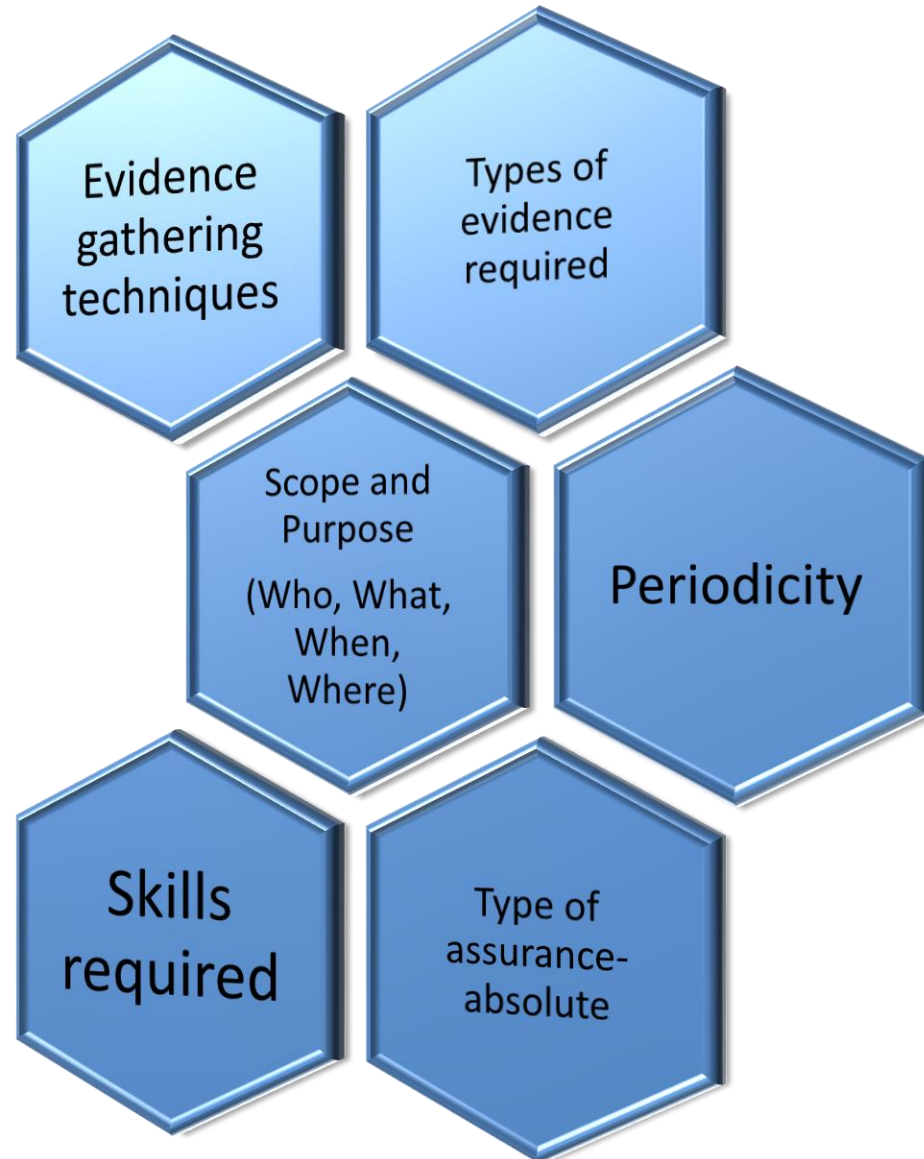
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Challenges and Way Forward

Statutory Audit Versus Forensic Audit- How Do They Differ?



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Proactive role

- >Raising risk awareness
- >Facilitating Control Assessment.
- >Advisory services to advocate integrating forensic principles in the business activities.
- >Review of the systems under development for incorporating forensic principles.
- >Review of the adequacy of controls in IT systems used with a focus on interfaces among different systems
- >Capacity building

Reactive role

- >Collecting appropriate evidence and maintaining the chain of custody
- >Adequate coordination with investigating and law enforcement agencies.
- >Findings reported through normal audit process, when applicable, are handed over to the investigating authorities.

Characteristics of a Forensic Auditor



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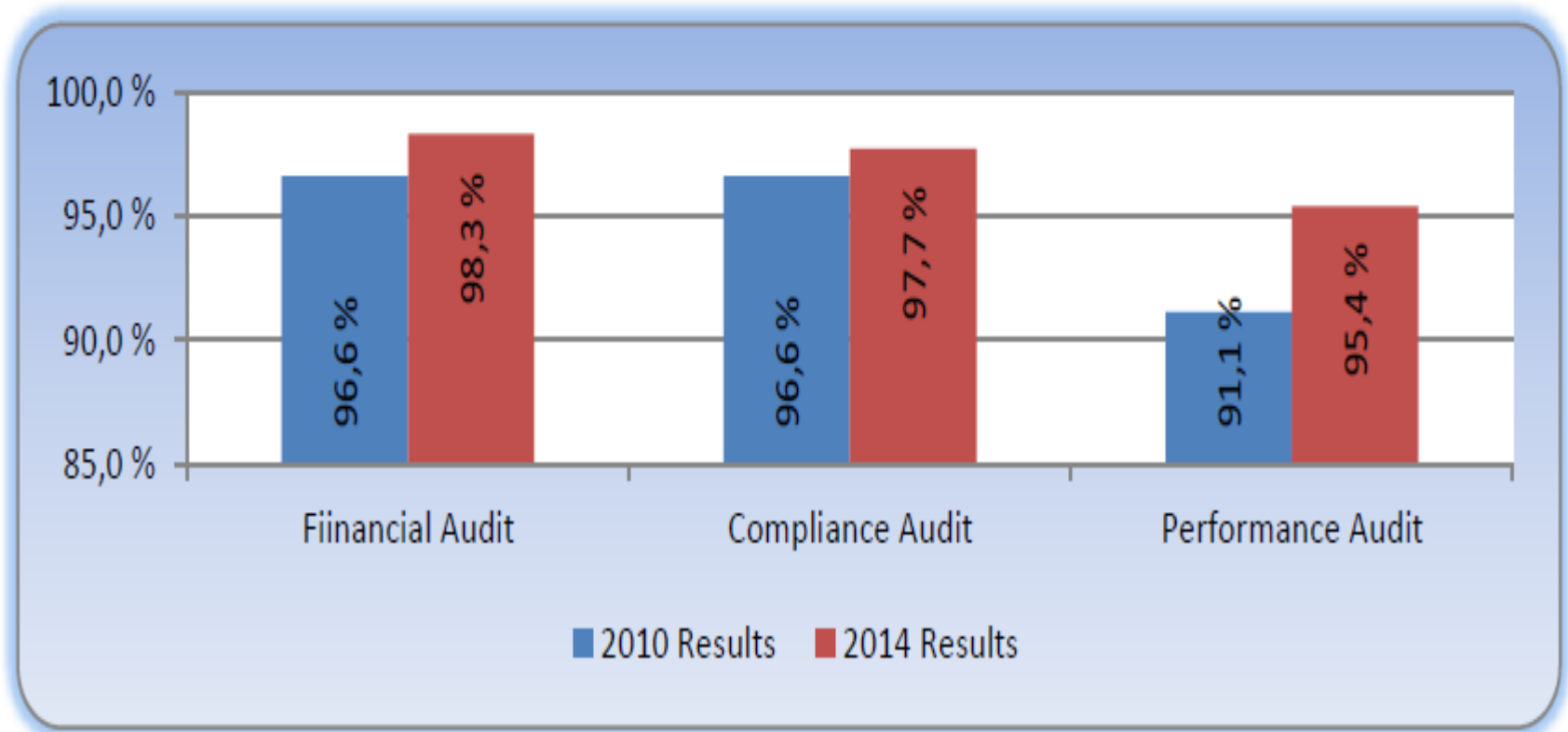
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Mandates of the Supreme Audit Institutions- A Comparison Between 2010 and 2014



Source: INTOSAI publication, 'Performance, Capacities, and Needs of SAIs. Global SAIs stocktaking Report, 2014.'

Some Commonly Followed Practices Among SAIs



Barring few SAIs, in most of the cases, there are other agencies responsible for investigating fraud and corruption.

Government Accountability Office, USA, and National Audit Office, UK, Office of the Auditor General, South Africa have specialized forensic investigation teams

Forensic Auditing by SAIs

The 2014 Global Survey conducted by INTOSAI advised SAIs to undertake specialised audits that included investigative or forensic audits

The member countries of the Asian Organisation of Supreme Audit Institutions (ASOSAI) had the following statuses:

- Indonesia, Iraq, Korea, and Philippines: Ranked forensic audit as the foremost instrumental audit service in prevention of fraud and corruption while Russia ranked it second.
- Philippines: Established a Fraud Audit Office, which conducts audits of government agencies with probable fraudulent transactions to safeguard government assets against abuse and fraud and to respond to the increasing public demand for fidelity in the use of government funds and property.
- Malaysia: Investigative audit is a part of regular auditing. In the course of an audit, indications of fraud are investigated by the team that conducts the audit.

- Indonesia: Developed an investigative audit task force (ad hoc).
- Thailand: Conducts investigative audits and established a Forensic Audit Unit.
- China, India, Iran, and Turkey: Did not have forensic audit units.
- Iran: The General Inspection Organization of Iran performed the task of investigative auditing; and
- Turkey: Did not have a separate forensic audit unit and did not have a plan to establish one in the future.

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Digital Forensics

Seizure :To understand whether the auditor has the authority to seize the digital equipment as well as knowledge of the proper methodology to use so that evidence is not destroyed or tainted.

Image Acquisition: Use of decision-making processes to determine the best method for acquiring an image of the suspect system and the proper use of software and hardware tools to facilitate the image capture maintaining 'chain of custody.'

Analysis : Use of specialized tools designed to give the examiner the means to locate and extract artefacts that will be used as evidence in the investigation.

Reporting and Testifying: A qualified computer forensic expert may be asked to render an opinion about the use or misuse of the system.

Some Commonly Used Detection Techniques

- *Data Mining*: To discover previously hidden patterns and attributes in data, pointing not only to fraudulent transactions, but also to new markets and products, is the new challenge for Information Systems auditors.
- Other techniques: Case-based reasoning tools and neural networks, data matching etc.,

Indicators of Fraudulent Practices, Red Flags, a Good Starting Point- An Example of Public Works

Estimates of requirements prepared in piecemeal to avoid procurement procedures set for high value purchases.

Specifications prepared to exclude all but certain favoured suppliers.

Estimates prepared using costs higher than the market price.

Single work divided into several small components so that it can be approved within the initiator's authority.

Material purchased directly at the manufacturer's price that falsely claim to meet the required specifications.

Unusually low time given for bidding to avoid competition.

Tailored conditions of payment allow unconditional secured advance, mobilisation advance etc.,

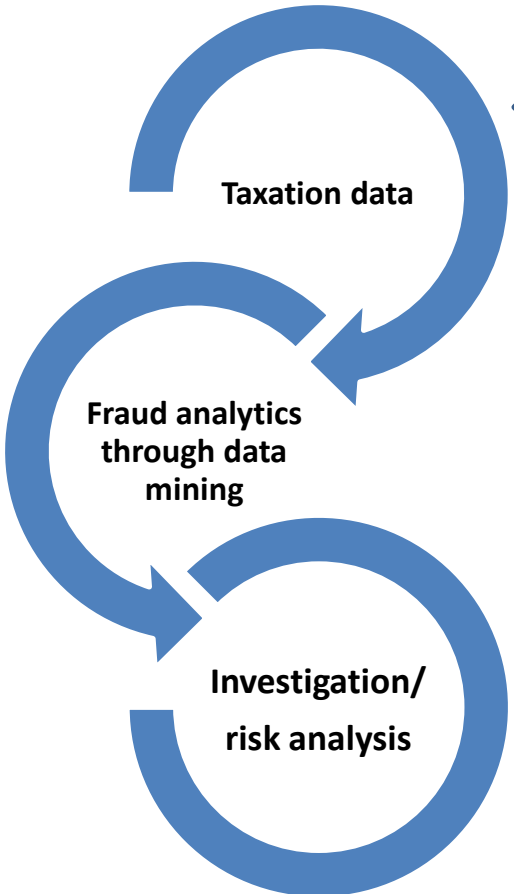
AUDIT OF TAXATION SYSTEM USING FORENSIC PRINCIPLES- A CASE STUDY

- >Income tax collections (2013-14) in the province-\$3448 million
- >Sustained interface between Tax Administration offices and Statutory Audit offices
- >Taxation offices/tax payers identified by unique identification numbers
- >Taxation systems: Income tax, VAT, excise duty on manufacturing, and customs duty
- >Lack of interface between different taxation systems in the audit office

Stages involved



OBJECTIVE



Challenges:

- Large volumes of data
- Data acquisition
- Integration errors
- Soft skills and controls
- Resources

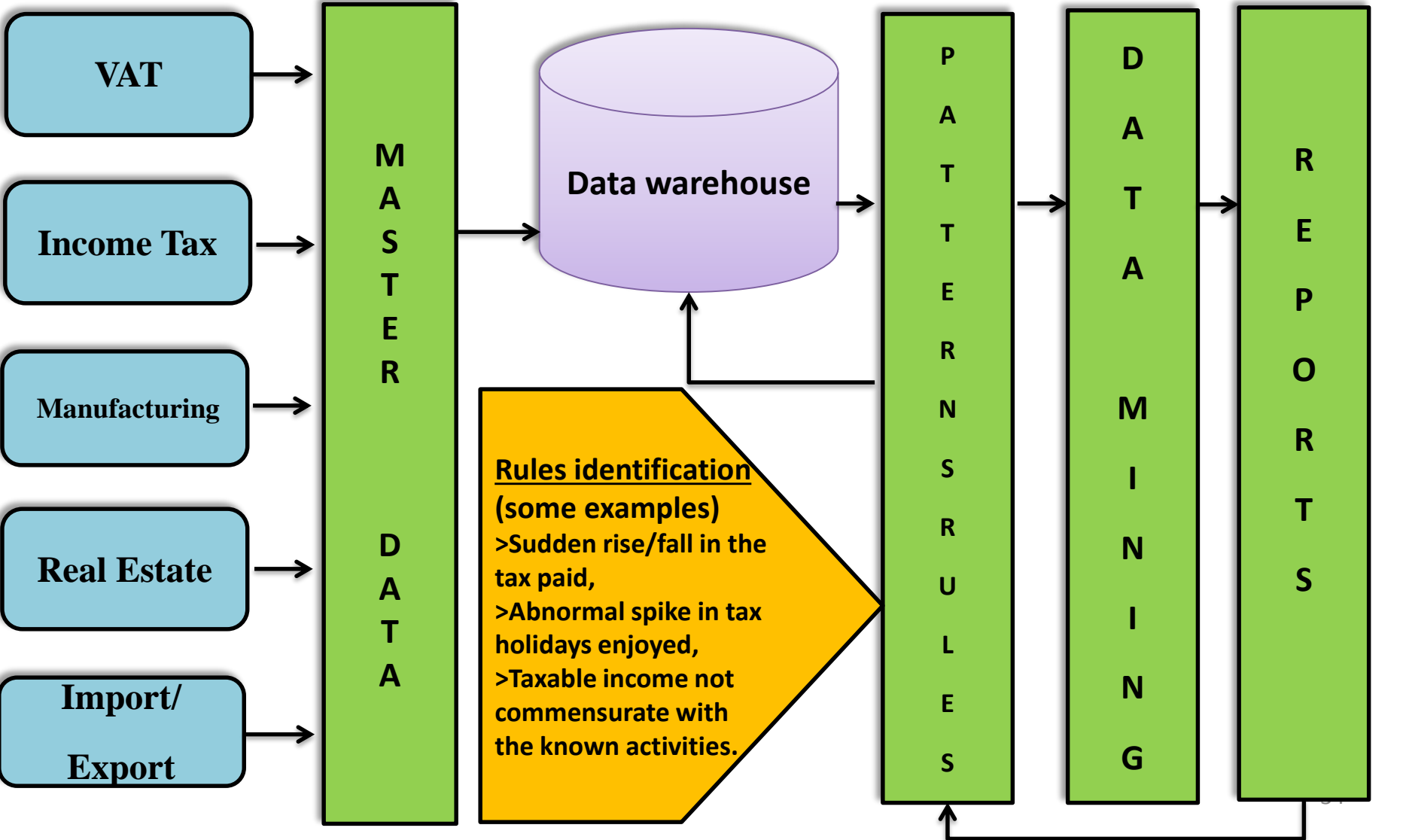
Components

**PROCESS
DESIGN**

**IT
SYSTEMS**

PEOPLE

INTEGRATION PLAYED A KEY ROLE!



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Digital Forensics and Data Mining- A Case Study on an Audit of the Indian Taxation System

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Challenges and the Way Forward

The Way Forward

Institutional arrangements

- Securing appropriate audit mandate
- Well-defined relationships with investigating agencies
- Infrastructure for evidence preservation and analysis

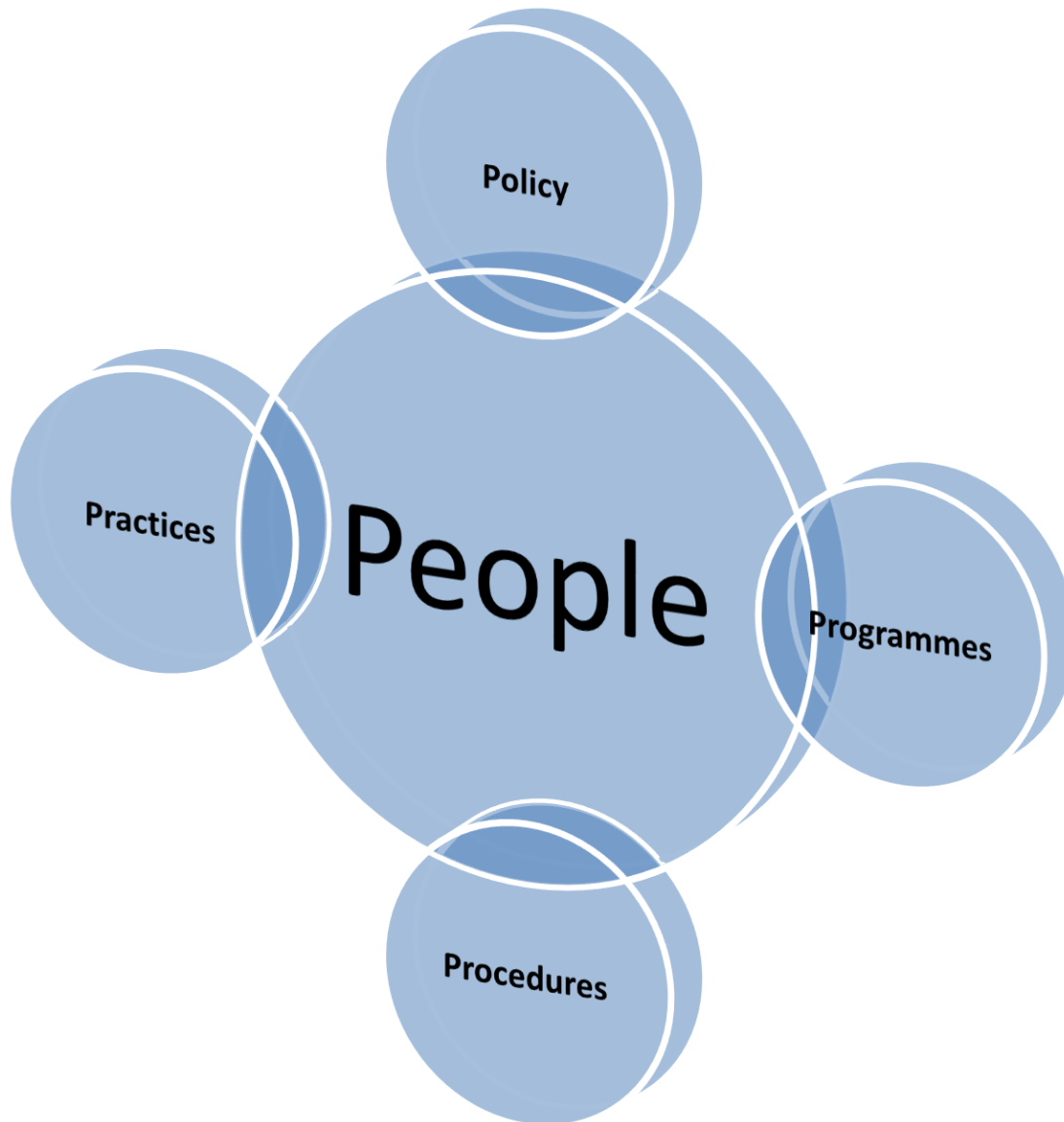
Professional practices

- Entities' profiling integrating forensic principles
- Developing red flags/fraud patterns/rules
- Proactive role through facilitating control self assessment-sensitising clients
- Advocate for integration of forensic principles in the business systems

Capacity building

- SAIs staff-recruitment, specialists cadre
- Entities' staff
- Joint seminars/workshops for knowledge and experience sharing

Five Ps of Internal Controls-who holds the key?



“Corruption, embezzlement, fraud, these are all characteristics which exist everywhere. It is regrettably the way human nature functions, whether we like it or not. What successful economies do is keep it to a minimum. No one has ever eliminated any of that stuff.”

Allan Greenspan
American Economist

Thank You

Questions?



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