

Risk-Based Internal Audit (RBIA) for Better Assurance

Strengthening Public Financial Management Program to
Enable Service Delivery (**SPFMS**)

Finance Division, Ministry of Finance

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Agenda

1. Internal Audit (IA)
 - ▶ IA Definition,
 - ▶ IA Approach,
 - ▶ IA Charter and
 - ▶ IA Value
 - ▶ RBIA process
 - ▶ Audit Universe
 - ▶ Risk Assessment

2. Workshop to understand
 - ▶ Risks matrix and scoring
 - ▶ Audit Universe

What is Internal Audit – Mission Statement

Internal Audit is an independent review and consulting function providing Management and the AC (Audit Committee)/PAO (Principal Accounting Officer) assurance that:

- ▶ effective internal controls exist to maintain process integrity
- ▶ measures and reporting are accurate and reliable
- ▶ there is compliance with policies and regulations

- In this sense, IA is critical sounding to Management/PAO **highlighting risks and Internal Controls that are not being adequately managed** by the MDAs
- IA is here to **add value** by supporting the management of the department on all levels to **better manage the business and the Internal Control Systems**

IA and EA (C&AG) Comparison

| No. | Criterion | External Audit (C&AG) | Internal Audit |
|-----|----------------------------------|--|--|
| 1. | Position inside the organisation | The External Auditors are not part of the organisation. Their objectives are set by the Constitution and their legislation. Their clients are the parliamentarians and citizens of Bangladesh. | The Internal Auditors are part of the organisation. Their objectives are determined by the ministry Head. Their clients are the managers |
| 2. | Objectives | The primary objective of the C&AG is to provide an independent opinion on financial statements, plus a review of internal controls and performance as allowed by legislation | The internal auditor's scope of work is comprehensive. It can review all aspects of the organisation- both financial and non-financial and also focus on future events as a result of the continuous review and evaluation of control processes as determined by the IAU Audit Charter |
| 3. | Standards | Is governed by international public sector auditing standards | Follows the IIA's international standards for professional practice |

IA and EA (C&AG) Comparison-contd.

| No. | Criterion | External Audit (C&AG) (INTOSAI /ISSAIs) | Internal Audit of internal auditing. |
|-----|--|--|--|
| 4. | Approach to Internal Control | External audit regards the internal control system only from the materiality perspective. | Internal audit regards all the aspects regarding the organisation's systems of internal controls. |
| 5. | Review of compliance & regularity issues | C&AG has powers to review and report across the GOB | Internal audit can review such areas within the ministry and included in annual audit plan, or as required by the ministry Head |
| 6. | Results | Meets statutory requirements and provides recommendations to improve system and processes. | Identifies problems and makes recommendations to improve compliance with controls or to improve the performance of the organisation. Helps facilitate resolution of matters raised during audits, internal and external. |

IA Charter (IIA Standard 1000)

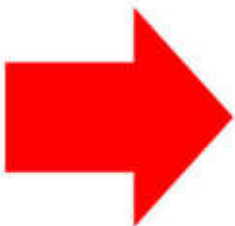
- The IA function has a formally defined IA charter approved by the PAO and the Chairman of the AC.
- The IA charter has the following minimum content:
 - Mission
 - Role & Scope
 - Organization
 - **Independence**
 - Responsibility, and
 - Performance measurement.

The IIA standard describes “The internal audit charter is a **formal document** that defines the internal **audit activity's purpose, authority, and responsibility**. The internal audit charter establishes the internal audit activity's **position within the organization**, including the nature of the chief audit executive’s functional reporting relationship with the board/AC/PAO; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.”

Your Role

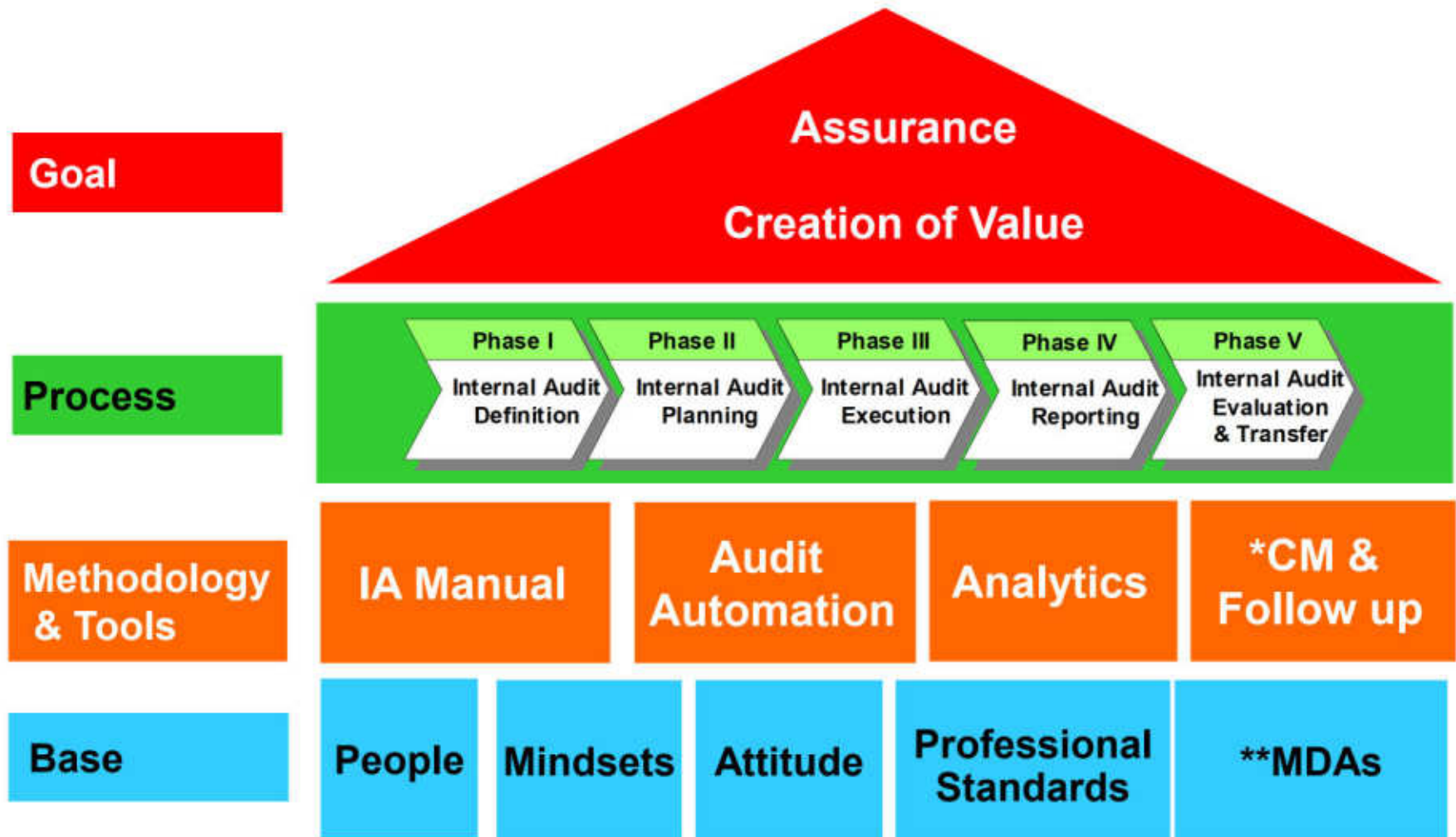
The Internal Auditors are a key element of the Good Governance framework and – together with external audit – the **acting hand** of the PAO or Audit Committee.

You are the extra **pair of eyes of PAO**.



By executing your role in an effective way you contribute significantly to the “checks and balances” at department level and thus to good Governance in the Ministry

The Internal Audit Assurance and Value “House”

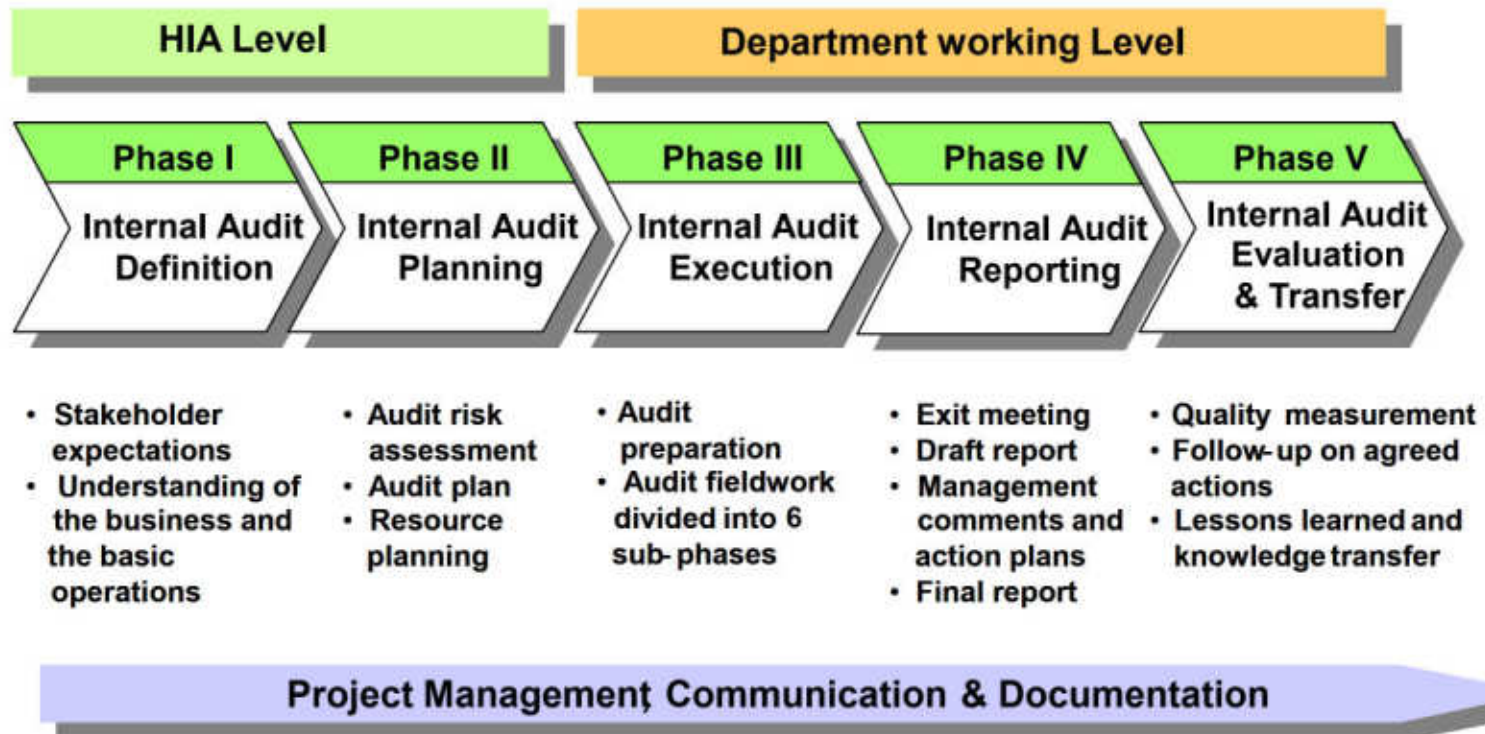


*CM: Continuous monitoring
 **MDAs-Ministry, Department, Agency

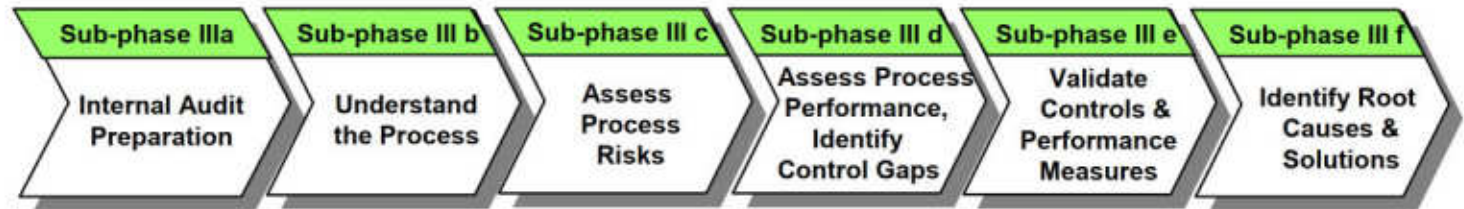
The Internal Audit Process (IAP) - Overview

The IAP methodology has been developed to best suit department needs and to provide a standard process that can be consistently applied by all departments' Internal Audit functions ministry wide.

It comprises 5 phases:



IA Execution (Phase 3)– Overview on Steps and Deliverables



Steps

- | | | | | | |
|---|---|--|--|--|---|
| <ul style="list-style-type: none"> • Revisit IA planning documents and work programs • Gather and analyse current information relevant to the audit project • Interview main stakeholders • Assign adequate resources and prepare work plan and budget (as applicable) • Co-ordinate audit schedule with auditee organisation, announce audit project • Conduct opening meeting | <ul style="list-style-type: none"> • Gather process information • Receive or draw process flowchart • Validate process flowchart | <ul style="list-style-type: none"> • Identify risks in the process • Source risks • Measure and prioritise risks • Establish process risk list (or optionally process risk map) • Define risks to be analysed in detail • Validate process risk list | <ul style="list-style-type: none"> • Identify controls including performance measures • Evaluate design of controls and performance measures • Identify control gaps • Identify "quick wins" | <ul style="list-style-type: none"> • Determine type and extent of tests • Design and perform tests • Document and analyse results | <ul style="list-style-type: none"> • Define gaps / observations to be further analysed • Identify causes of gaps • Rate significance of gaps / observations • Identify possible corrective action to control and performance gaps • Formulate observations and recommendations • Obtain Process Owner / Management response • Complete field work, prepare for reporting |
|---|---|--|--|--|---|

Deliverables

- | | | | | | |
|---|---|---|---|---|--|
| <ul style="list-style-type: none"> • Project file in TeamMate EWP • Audit Work Plan and Budget • Defined, documented and verified audit objectives, scope • Audit Approach presentation • Minutes of opening meeting • Draft of introductory sections of IA Report • Interview notes | <ul style="list-style-type: none"> • Process documentation • Process flowchart • Interview notes | <ul style="list-style-type: none"> • Interview notes • Process risk list / map • Structure of Audit Work Program | <ul style="list-style-type: none"> • Documentation of controls • Assessment of control design • Analysis of process performance measures • Documentation of control gaps and recommendations for control design | <ul style="list-style-type: none"> • Documented audit test results and conclusions | <ul style="list-style-type: none"> • Validated and documented observations, risks and recommended actions • Complete documentation of performed audit procedures |
|---|---|---|---|---|--|

Benefits of internal auditing in the public sector?

By **providing unbiased, objective assessments of whether public resources are managed responsibly and effectively to achieve intended results**, internal auditors help public sector organizations achieve accountability and integrity, improve operations, and instil confidence among citizens and stakeholders.

Assurance-based audit (ABA): ABA is using the risk-based approach to co-ordinate all the assurance activities in the public sector to ensure that

- ▶ Duplication is minimized (C&AG can depend on IA),
- ▶ Departments' process and procedure are improved
- ▶ Efficiency of operation is improved
- ▶ Public assets are protected
- ▶ Reporting and information are reliable
- ▶ Compliance of rules and regulations are ensured

Next steps: What is Audit Universe

- An audit universe (AU) is the collective grouping of auditable 'components' – sometimes also called auditable areas, units or entities – that support the development of the internal audit plan and help to identify appropriate internal audit coverage that the Head of Internal Audit can then prioritise,
- The followings may be considered to find the AU:
 - Strategy and goals of MDA
 - Major Projects
 - Top spending areas
 - Functions and Organogram
 - Previous audit issues and risks

RISK UNIVERSE – Sample

STRATEGIC

- 1.1 Governance:
 - 1.1.1 - Committees Performance
 - 1.1.2 - Tone at the Top
 - 1.1.3 - Control Environment
- 1.2 Planning and Resource Allocation:
 - 1.2.1 - Organizational Structure
 - 1.2.2 - Strategic Planning
 - 1.2.3 - Annual Budgeting
 - 1.2.4 - Forecasting
 - 1.2.5 - IT Strategy
 - 1.2.6 - Tax Planning
- 1.3 Major Initiatives:
 - 1.3.1 - Planning and Execution
 - 1.3.2 - System Implementations
- 1.4 Mergers, Acquisitions & Divestiture:
 - 1.4.1 - Valuation and Pricing
 - 1.4.2 - Due Diligence
 - 1.4.3 - Execution and Integration
- 1.5 Market Dynamics
 - 1.5.1 - Competition
 - 1.5.2 - Macro-Economic Factors
 - 1.5.3 - Socio-Political
 - 1.5.4 - Customer Profile Trends
 - 1.5.5 - Pricing Pressures
- 1.6 Communications
 - 1.6.1 - Media Relations
 - 1.6.2 - Crisis Communication
 - 1.6.3 - Employee Communication
- 1.7 Stakeholders:
 - 1.7.1 - Shareholders
 - 1.7.2 - Customers
 - 1.7.3 - Suppliers

COMPLIANCE

- 2.1 People/Human Resources:
 - 2.1.1 - Culture
 - 2.1.2 - Recruiting and Retention
 - 2.1.3 - Development and Performance
 - 2.1.4 - Succession Planning
 - 2.1.5 - Compensation and Benefits
- 2.2 Information Technology:
 - 2.2.1 - IT Strategy and Planning
 - 2.2.2 - Information Protection/Security
 - 2.2.3 - Application & Operating Systems Implementation
 - 2.2.4 - Business Continuity Planning
 - 2.2.5 - Outsourcing Relationships
 - 2.2.6 - Hardware Procurement and Support
 - 2.2.7 - End User Computing
- 2.3 Hazards:
 - 2.3.1 - Natural Events
 - 2.3.2 - Terrors and Malicious Acts
- 2.4 Physical Assets:
 - 2.4.1 - Property, Buildings and Equipment
- 2.5 Tax Operations:
 - 2.5.1 - Tax Planning
 - 2.5.2 - Tax Department Operations
- 2.6 Products
 - 2.6.1 - Marketing and Sales
 - 2.6.2 - Customer Service
 - 2.6.3 - Pricing
 - 2.6.4 - Product availability
- 2.7 Supply Chain
 - 2.7.1 - Quality of supply/service
 - 2.7.2 - Availability of supply
 - 2.7.3 - Supplier failure
 - 2.7.4 - Materials pricing
 - 2.7.5 - Operations planning
 - 2.7.6 - Production capacity
 - 2.7.7 - Plant health and safety
 - 2.7.8 - Product Quality
 - 2.7.9 - Inventory planning
 - 2.7.10 - Loading systems
 - 2.7.11 - Rail systems

OPERATIONAL

- 3.1 Code of Ethics:
 - 3.1.1 - Ethics
 - 3.2.2 - Fraud
- 3.2 Legal:
 - 3.2.1 - Contract Administration
 - 3.2.2 - Record Retention
 - 3.2.3 - Liability
 - 3.2.4 - Trademark Compliance
 - 3.2.5 - Litigation
- 3.3 Regulatory:
 - 3.3.1 - Labor
 - 3.3.2 - Data Protection and Privacy
 - 3.3.3 - Tax Compliance and Tax Authority
 - 3.3.4 - Securities and Exchange Commission
 - 3.3.5 - Environmental
 - 3.3.6 - Customs

FINANCIAL

- 4.1 Market:
 - 4.1.1 - Interest Rate
 - 4.1.2 - Credit Ratings
 - 4.1.3 - Foreign Currency
 - 4.1.4 - Derivatives
- 4.2 Liquidity and Credit:
 - 4.2.1 - Cash Management
 - 4.2.2 - Funding
 - 4.2.3 - Hedging
 - 4.2.4 - Credit and Collectables
 - 4.2.5 - Insurance
 - 4.2.6 - Debt
 - 4.2.7 - Equity
 - 4.2.8 - Debt Covenants
 - 4.2.9 - Pension/Retirement Funds
- 4.3 Accounting and Reporting:
 - 4.3.1 - Reporting and Disclosure
 - 4.3.2 - Revenue Recognition
 - 4.3.3 - Internal Control
 - 4.3.4 - Tax Strategy and Planning
 - 4.3.5 - Tax Optimization

REPUTATIONAL

- 5.1 - Health & Safety
- 5.2 - Employee Satisfaction
- 5.3 - Community Programs
- 5.4 - Economic Forces
- 5.5 - Political Forces
- 5.6 - Social Responsibility
- 5.7 - Public Relations

Generic System and Processes

1. Budgetary Processes and Expenditure control
2. Accounting and Reporting
3. Pay and allowances/personnel management
4. Purchase ordering and payment of goods and services
5. Stocks and stores (including write offs)
6. Receipts/income/debtors
7. Asset management (including repairs and maintenance)
8. Debt/cash management
9. Capital expenditure
10. Subsidies and grants and
11. Performance reviews

IA Role and Scope- Risks relevant for IA (Sample only)

- Relevant business risks for IA are grouped into 3 categories:

| Minimum Role | Extended Role | Off-Frame |
|--|--|---|
| <ul style="list-style-type: none"> • Logistics • Financial instruments • Asset Protection • Measurement / monitoring • Procurement • IT Security • Health and safety • Information relevance • Financial reporting • Compliance • Revenue Collection • Contracts • Budgeting • IT Infrastructure • CAPEX projects • Liquidity / cash flow • Taxation • Empowerment • Fraud & corruption | <ul style="list-style-type: none"> • Outsourcing • Hiring / Retaining • Business interruption • Reputation • Resource availability • Service / product quality • Budget / planning • Efficiency / Productivity • Pension funding • Catastrophe • Environmental • Social security | <ul style="list-style-type: none"> • Business Plan • Economic influences • Competitor actions • Capacity • Interest rates • Personal security • Business portfolio • Shareholder relations • Capital availability • Future regulations* • Government / public influence* • Currency |

IA lead

* Potentially extended role

Risk Assessment, Consideration and Scoring

Risk scoring methodology would be used by assigning scores to each auditable activity on the scale of 1 to 3 (1=low; 2=medium; 3= high). Further, aggregate risk scores can be rated as “low” (1-5), “Moderate” 6-10), or “high” (11-15). High-risk departments will be determined through risk assessments that will consider identifiable *auditable process/activity* for example based on the following factors:

- **Complexity of control environment** - this risk factor reflects the potential for errors or misappropriation to go undetected because of a complicated environment and nature of transaction / activity. The **control environment** represents the collective policies, procedures, routines, physical safeguards and staff in place. Essential to a favorable control environment is the **tone at the top**, adherence to documented policies and procedures, reliable systems, prompt detection and correction of errors, adequate staffing and **controlled turnover** of personnel. Conversely, **lack of supervision, high error rates, lack of documentation, and unmanageable backlogs** of work, high turnover, and non-routine transactions are symptoms of a poor control environment.

Risk Assessment, Consideration and Scoring

- **Entity functional scope** - the criticality of an activity for audit purposes can be judged by the extent of the scope of its functions (e.g., **policy formulation** or **citizen-facing**) and the number of people engaged.
- **Entity budget size** – the comparative size and nature of the budget (capital/development, payroll, other-recurrent operating budget) and procurement packages.
- **Changes in People/Systems** - changes impact internal controls and financial reporting. Change usually occurs to effect improvement in the long term, but often has short-term offsets that require increased audit coverage. Changes can include reorganizations, policy shifts; functional expansion or reduction; new regulations or laws; personnel turnover. Audit activities not subject to change require less audit coverage.
- **Comfort with operating management** - this criterion reflects the confidence that the audit team places in management and its commitment to internal control. Comfort is characterized by factors such as past audit interaction, understanding of management in the work environment, and feelings about the quality and level of staffing.

Basic values for Internal Audit

- **Creates business value** and is aligned with the goals and risks of the Ministry and departments
- **Acts independently** and excels in **objectivity**, **professionalism** and also in **common sense**
- Has **“guts”** and does not need to be on the center stage
- **Learns permanently** and exchanges knowledge to contribute towards best practice and standardization
- Is **not the “police”** but works in an atmosphere of **partnership**, and supports management running the business by alerting them to pitfalls at an early stage
- Is a **“preacher” and educator of good governance** within the department

Workshop



Exercise- (Second Session)

- Three groups
- Quiz on Risks and Control, multiple-choice questions (MCQ) - on screen
- Each group Identify and assess minimum 5 risks in three areas and show in Risk Control Matrix.
 - Procurement risk
 - Human Resource risk
 - Financial risk
- One or all members can present their thoughts and justification of risk rating.

Risk Matrix Scoring

| S No. | Entity (Procurement, HR, Finance) | Risks | Likelihood X Impact (1-5 scale) | | | Factor (F)* (2) | Total points (1X2) | Ranking as per total factored risk points |
|-------|--------------------------------------|-------|---------------------------------|--------------------------|-----------------------------------|---------------------------|------------------------------|---|
| | | | Likelihood (1-5) a | Impact (1-5) b | Likely X Impact (axb) = (1) | | | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |


***Factor calculation (F) 1-3 scale:**

| Entity | Total score (F) (a+b+c+d+e) | Complexity (1-3) a | Importance (1-3) b | Budget size (1-3) c | Changes (1-3) d | Cooperation (1-3) e |
|-------------|-----------------------------------|--------------------------|--------------------------|---------------------------|-----------------------|---------------------------|
| Procurement | | | | | | |
| HR | | | | | | |
| Finance | | | | | | |

Risk Control Matrix- Sample

| Impact Criteria Guideline | | | | | | | | | | | | | |
|---------------------------|--|---------------------------------|---|--|-----------------------|---|--|---|---|--|---|---|-------------------------------|
| Involvement | Operation | Negative Budget/ Cash effect | Health & Safety | Image | General Definition | # | | | | | | | |
| Parliament | Ministry level disturbance / interruption > 1 week | > 2.5% of Budget | Multiple deaths, others injured and media coverage | Blacklisting | Dramatic | 5 | Medium | High | High | High | High | High | High |
| Audit Committee | Interruption of operation more than 1 week | > 1.5% and < 2.5% of Budget | 1 death or permanent disablement and media coverage | International media coverage, numerous people are walking away | Major | 4 | Medium | Medium | High | High | High | High | High |
| PAO | Interruption of operation up to 1 week | > 0.5% and < 1.5% of Budget | >1 LTI and local media coverage | Country-wide media campaign, some public are walking away | Moderate | 3 | Low | Medium | Medium | High | High | High | High |
| MDA-Head | Disturbance of operation up to 1 week | < 0.5% of Budget | >1 LTI, but with no media coverage | One time article; few publics are walking away | Minor | 2 | Low | Low | Medium | Medium | High | High | High |
| Business Director | Disturbance of operation up to ½ day | Up to 10 crore | 1 Lost Time Injury (LTI) | Public complaints | Insignificant | 1 | Low | Low | Low | Medium | Medium | Medium | Medium |
| | | | | | | | 1 | 2 | 3 | 4 | 5 | | |
| | | | | | | | No such events known in audited entity | Event known in audited entity – max. 1 time in 10 years | Event known in audited entity – max. 1 time in 3 years | Event has already occurred min. 1 time in audited time period in audited entity | Event has already occurred 1 or more times in last 1-12 months in audited entity | Likelihood of repeat adverse effect | |
| | | | | | | | Effective controls defined allow to conclude that no such events can happen. | Effective controls defined allow to conclude that exist an unlikely probability that the events can happen. | Some effective controls defined allow to conclude that there are a moderate probability that the events can happen. | Lack of controls allow to estimate that is likely that events could happen more than 1 time in a year. | Lack of controls has generated that the event has happened and is possible to happened more than 1 time in a year | Control deficiency causing adverse effect | |
| | | | | | | | Rare | Unlikely | Moderate | Likely | Almost certain | General Definition | |
| | | | | | | | | | | | | | Likelihood Criteria Guideline |

Way forward-Prepare for CIA certification



Updated – Aligned – Focused

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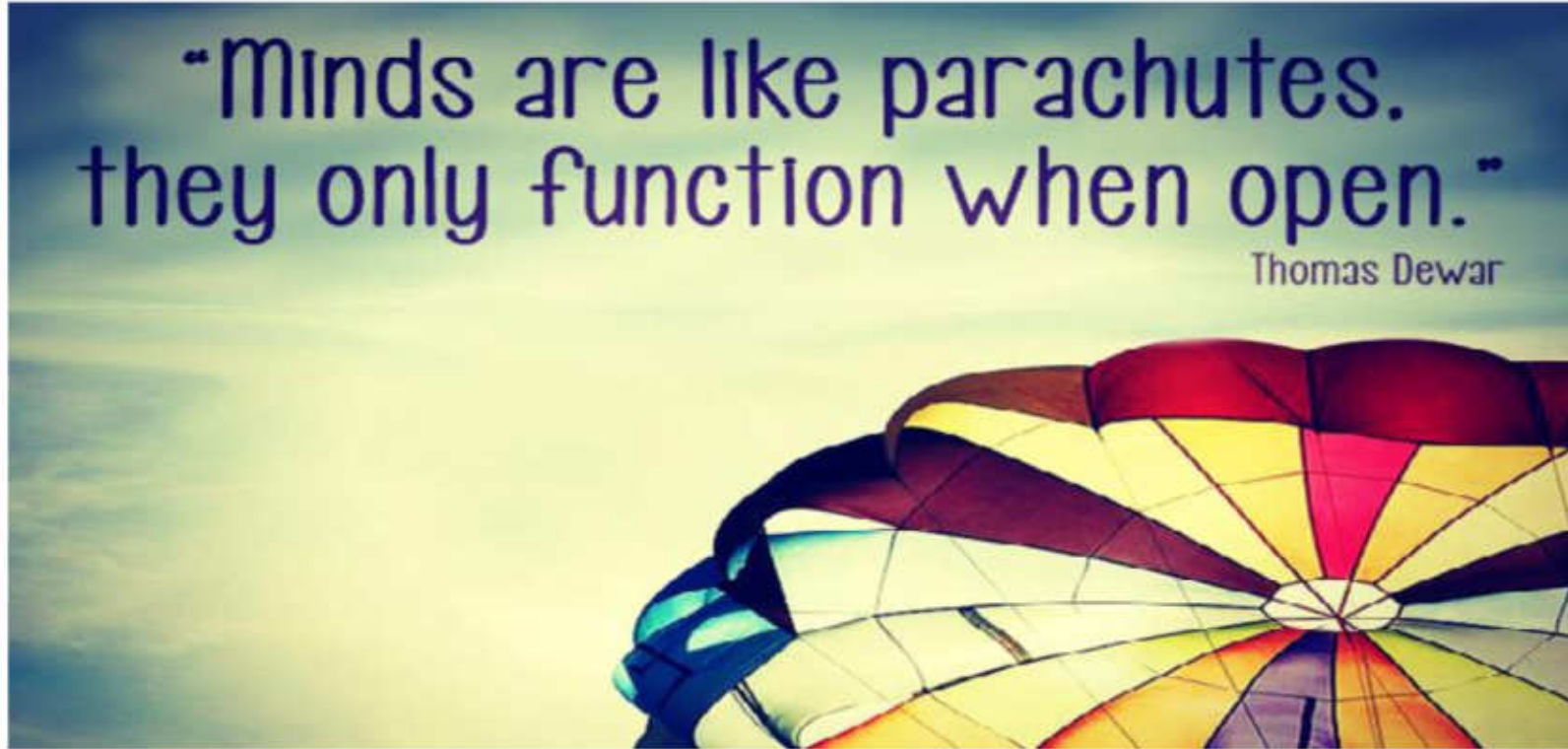


Improve your efficiency and proficiency

*In case of any question(s) please contact
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“Minds are like parachutes.
they only function when open.”

Thomas Dewar



Many thanks

APPENDIX: SELECTED RISK INDICATORS AND MITIGATION EFFORTS

| Risk Categories | Selected Risk Indicators | Selected Mitigation Efforts |
|---------------------------------------|---|---|
| Macroeconomic | <ul style="list-style-type: none"> ■ Foreign Exchange Rates ■ Interest Rates ■ Asset Prices ■ Commodity Prices (Especially Oil and Gold Prices) ■ Stock Price Indices ■ Inflation ■ Foreign Investment Inflows and Outflows ■ Forex Reserves ■ Trade Balance ■ GDP Growth Rate ■ Country Credit Rating | <ul style="list-style-type: none"> ■ Assess large balance sheet exposures. ■ Maintain and harness "agility" to deploy capital in case of a change in economic scenario. ■ Evaluate exposure to emerging markets. ■ Develop hedging strategy for commodity prices and foreign exchange. |
| Sovereign/Political Risk | <ul style="list-style-type: none"> ■ Regulatory Actions, Trade Barriers, and Protectionist Measures ■ Type and Nature of Regime ■ Average Tenure of Regime ■ Country-Risk Ratings ■ Government Spending as a Percentage of Expenditure ■ Inflation ■ Unemployment Rates ■ Fiscal Deficit and Government Debt | <ul style="list-style-type: none"> ■ Review country-risk reports. ■ Have regular updates with key risk and assurance stakeholders. ■ Ensure continual, two-way flow of risk information from regional centers to corporate centers. ■ Review internal organization structure and placement of operations. ■ Work directly with government officials. |
| Information Technology Infrastructure | <ul style="list-style-type: none"> ■ Application Failures ■ System Downtime ■ Technology Adoption Failures ■ Disruptions in Services Provided by Vendors (e.g., Denial-of-Service Instances) ■ Number of Previously Unknown Errors ■ Number and Duration of Disruptions in the Event of a Crisis | <ul style="list-style-type: none"> ■ Review disaster recovery plans. ■ Ensure company has a coordinated approach for modeling, managing, and storing data. ■ Review IT strategy and investment plan. |
| Data Security | <ul style="list-style-type: none"> ■ Number of Security Attacks (Including Cyber Attacks) ■ Number of Security Lapses ■ Number of Personally Identifiable Information (PII) Leakages (Employee or Customer Information) ■ Sensitive/Strategic Information Leakages ■ Use of Unauthorized Devices ■ Third-Party Security ■ Social Media Policy Violations | <ul style="list-style-type: none"> ■ Monitor end-user behavior. ■ Make staff aware of their obligations regarding security issues. ■ Install firewalls. ■ Restrict user access rights of different layers of employees. ■ Review disaster recovery plans. ■ Evaluate regulatory compliance exposure. |

APPENDIX: SELECTED RISK INDICATORS AND MITIGATION EFFORTS (CONTINUED)

| Risk Categories | Selected Risk Indicators | Selected Mitigation Efforts |
|--------------------|--|--|
| Talent | <ul style="list-style-type: none"> ■ Employee Turnover/Headcount Fluctuations ■ Compensation and Incentive Benchmarks ■ Absenteeism ■ Employee Profiles (e.g., Experience, Strengths, and Developmental Areas) Versus Job Requirements ■ Productivity ■ Number of Employee Complaints ■ Unclear Reporting Lines ■ Employee Engagement Levels (Through Employee Surveys, Exit Interviews) ■ Instances of Fraud or Misconduct | <ul style="list-style-type: none"> ■ Conduct targeted training programs. ■ Focus on succession planning. ■ Conduct ongoing systematic sensing and management of departure likelihood. ■ Assess and improve work quality. ■ Promote line-led retention management efforts. ■ Target tracking and retention efforts on key/high-risk employees. ■ Provide competitive remuneration. ■ Identify new sources of high-quality candidates. |
| Product Innovation | <ul style="list-style-type: none"> ■ Diversity of Product Lines ■ Number of Ideas or Concepts in the Product Development Pipeline ■ Number of Patents Applied For ■ Number of New Products Rolled Out ■ RD&E Spending as a Percentage of Sales ■ RD&E Employee Headcount ■ RD&E Budget Allocation ■ Time to Market ■ Strategic Alignment of Product Portfolio | <ul style="list-style-type: none"> ■ Seek feedback from lead users/customers at various stages of product development. ■ Set up incubation cell for ideas. ■ Invest in cocreation with customers. ■ Build an internal and external innovation network. ■ Identify incremental versus breakthrough projects. ■ Introduce performance metrics to incentivize desired business outcomes (such as innovation recognition). |
| Competition | <ul style="list-style-type: none"> ■ New Entrants ■ Changes in Competitors' Growth Strategy ■ Competitors Moving into New Markets and or Market Segments ■ Market Share ■ Price Trends ■ Market Analysis and Technical Reviews ■ Strength of Sales Pipeline | <ul style="list-style-type: none"> ■ Conduct competitive intelligence analysis on top competitors. ■ Focus product development and marketing efforts on key competencies. ■ Monitor competitors' pricing changes. ■ Monitor competitors' marketing campaigns and press releases. |
| Customer | <ul style="list-style-type: none"> ■ Customer Satisfaction with New Products/Services ■ Adoption Rate ■ Customer Loyalty ■ Changing Customer Demographics ■ Customer Churn Rate | <ul style="list-style-type: none"> ■ Survey suppliers to uncover emerging trends. ■ Train front line to gather customer insights. ■ Conduct customer interviews/focus groups to identify unmet needs. ■ Monitor external sources of customer information such as wikis, blogs, and social networking websites. |

APPENDIX: SELECTED RISK INDICATORS AND MITIGATION EFFORTS (CONTINUED)

| Risk Categories | Selected Risk Indicators | Selected Mitigation Efforts |
|--|--|--|
| Operational Failure | <ul style="list-style-type: none"> ■ Total Supply Chain Management Costs ■ Inventory Shrinkage ■ Cost of Goods Sold as a Percentage of Revenue ■ Manufacturing Cycle Time in Hours ■ Number of Instances of Miscommunication/Misrepresentation (on Behalf of the Company) ■ Crisis Readiness ■ Ineffective/Inadequate Marketing ■ Skill Deficit of Sales Staff | <ul style="list-style-type: none"> ■ Decrease dependence on major suppliers, especially if a number of suppliers are concentrated in a particular geography. ■ Audit the crisis management plans. ■ Audit business continuity plans. ■ Utilize quality management approach such Six Sigma, TQM, etc. ■ Assess the health of suppliers. |
| Legal, Compliance, and Ethics | <ul style="list-style-type: none"> ■ Regulatory Changes ■ Government Enforcement Actions ■ Recent Court Decisions ■ Perceived Fear of Retaliation Among Employees ■ Hotline Reporting Statistics | <ul style="list-style-type: none"> ■ Promote an ethical culture. ■ Set the right tone at the top. ■ Conduct general and targeted compliance training. ■ Administer survey instrument to measure health of company culture. |
| Merger, Acquisition, or Joint Venture Risk | <ul style="list-style-type: none"> ■ Liabilities of Parties Involved ■ Due Diligence Baseline ■ Transaction Pricing Costs ■ Shareholder Activism/Resistance ■ Availability of Capital ■ Market Reaction to Announcement of Transaction ■ Cultural Differences ■ Synergies Between Companies ■ Alignment with Long-Term Strategic Vision ■ Regulatory Compliance (with Antitrust Laws) ■ Exchange Rate Impact ■ Adherence with Accounting Standards | <ul style="list-style-type: none"> ■ Employ scenario-testing to choose best candidate. ■ Utilize strategic and operational parameters in transaction decision. ■ Divest underperforming assets. |
| Financial | <ul style="list-style-type: none"> ■ Compliance with Tax Laws ■ Underpayment or Overpayment of Tax ■ EBITDA ■ Gross Margin ■ Company Debt ■ Adherence with Accounting Standards ■ Credit Rating ■ Liquidity ■ Segregation of Duties and Internal Controls | <ul style="list-style-type: none"> ■ Control SG&A expenses, but invest in capabilities where your organization needs to be world class. ■ Conduct detailed scenario planning and stress-testing. ■ Interact with policy makers. ■ Evaluate the impact of tax reforms. ■ Study regional variations in accounting procedures and practices. ■ Ensure continuous analysis of investments throughout their life cycle. |