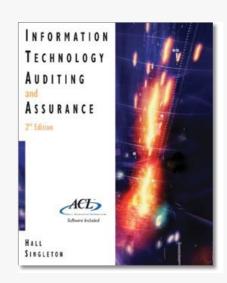
# Lesson 2 Introduction to Auditing

ST2610

<u>Security Policy</u> & Incident Management (<u>SPIM</u>)



# Relationship between Audit & Policy

- Audit makes the policy meaningful and "alive",
   by ensuring not only its compliance but also its efficiency and "compliability"
- In turn, the basis of reference of an audit is the policy



# Auditing – Definition & Characteristics

Auditing is a systematic process of objectively obtaining evaluation evidence regarding assertions about actions and events to ascertain the degree of correspondence between those assertions and establishing criteria and communicating the results to interested users.

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Note the 6 Characteristics:
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- Auditing is a systematic, independent and documented process for obtaining audit

# **5 Primary Management Assertions**

- 5 Primary Management Assertions, & Correlated Audit objectives & Procedures
  - 1. Existence or Occurrence
  - 2. Completeness
  - 3. Rights & Obligations
  - 4. Valuation or Allocation
  - 5. Presentation & Disclosure

# Why Audit?

 Auditing is a management monitoring and evaluation technique providing feedback about the status of organisational processes important to the successes of a business or organisation

> Note: To maintain the value added to auditing, it must be carried out professionally, objectively and constructively

# Why Audit?

(cont'd) ISO 27000

- To enable top management to obtain assurance and comfort that the company is in charge of and adequately handling its management responsibilities;
- To improve existing business processes and activities;
- To improve morale within the organisation;
- To solve problems or incidents within the organisation;
- To determine how effectively the organisation is achieving its stated business and quality objectives;
- To gather and analyse information upon which to make factual judgements;
- To identify where changes to business processes is required;
- To test the effectiveness and stability of the management system in achieving the

# Why Audit? (Son 2000 (cont'd)

- Auditing is a management tool and a problem-solving process
  - Note (again): To maintain the value added to auditing, it must be carried out professionally, objectively and constructively
  - The auditor's function is to provide unbiased information to management for decision-making
    - Audits must be carried out by staff with no direct responsibility in the area being audited

# **Audit – Ultimate Purpose**

- For the betterment of quality of business, organisation, processes and assets (including data)
  - Productivity
  - Efficiency
  - Integrity of processes, services, assets
    - Ensuring the credibility of the organisation, services, systems and information
  - Feedback for improvement or finding and fixing any policy, service or asset
  - Risk Management and Mitigation
  - Due Diligence
  - Business Forward Planning, Interim Status Report

### An Auditor is a Watchdog, Not a Bloodhound

- Auditors do not normally play policemen, investigate or look for crime, fraud or trouble
- Auditors are more like referees or qualified observers

#### AN AUDITOR IS A WATCHDOG, NOT A BLOODHOU

dered by the highest court in the land.

comprehensive written judgments varying the of an auditor's duty." outcome in the two distinct High Court claims against auditors, which were discussed in my article, "Whistling to the tune of \$" (Jan 9).

In the Gaelic lans case, the auditors failed to detect that over half a million sollars had — flags in each of those cases but had failed to been siphoned off by the company's finance adequately investigate them. manager. In the JSI Shipping case, the audihad drawn remuneration exceeding his entitlement by over half a million dollars.

The Court of Anneal affirmed the High Court decision that the auditors of Gaelic Inns had been negligent. But in the JSI Shipping case, the

Court of Appeal reversed the High Court deligent there as well.

In both cases, the Court of Appeal also Accordingly, the auditors would only bear half raised. the blame for the losses suffered by the firms.

and company directors.

mains: "If the auditor has genuinely exercised AUDITORS and company directors would ben-reasonable care in verification and still fails to efit from reviewing two recent decisions ren- detect a froud ... liability would not invariable attach, for the detection and prevention of Last month, the Court of Appeal delivered fraud for se is not typically within the scope

So the issue of liability turns on whether the auditor has exercised reasonable care. A key feature in both cases was that the auditors were actually aware of certain red

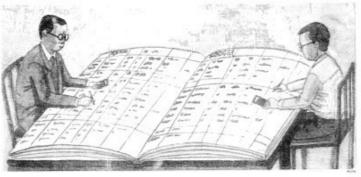
In the Goelic Imas case the foilure by the tors failed to detect that one of the directors finance manager to bank in hundreds of thou-

> between the sales figures and the sums banked in. The auditors noticed the gaps and sought confirmation that the money was later banked in. But even when ao confirmation was re-

ceired, the auditors cleared the accounts. Similarly, in the JSI Shipping case, the cision, holding that the auditors had been neg-auditors had asked for written confirmation of the remaneration that the errant director was

out receiving such written confirmation. So it is not difficult to appreciate why ruled that lapses in management on the parts — the auditors were held liable — they had failed — been a tactical manoeuvre to mislead any — the blame with the auditors. of Gaelic Inns and JSI Shipping respectively to ensure that satisfactory answers were had allowed the frauda to escape unnoticed. provided to questions they themselves had

One interesting aspect of the ISI Ship-While the two cases do not appear to have ping case is that the fraudulent director apheralded any new developments in the law. parently allowed his excessive drawing of rethe clear analysis is a boon to those who seek muneration to be reflected openly in the tory and its done for a relatively low fee. to better understand the liabilities of auditors accounts. The auditors argued that as there was no attempt at obfuscation or concealment, relating to the lapses in management by the will not hold the auditors fully liable if there ty imposed on auditors and directors to



investigative efforts". So, auditors should

Appeal rejected arguments that detecting sarily he done with a broad brush". fraud was outside the scope of routine statu-

there was little cause for them to be susti- company directors that are more interesting. It is not unusual, when a firm falls vic-

But the Court noted that "his full dis- tim to fraud, for the auditors and the com-It was not all bad naves for the auditors entitled to but later cleared the accounts with closure could have reflected his bravatio pany's management to point fingers at each and/or confidence that his mallessance would other. In both the cases, the Court of Appeal the auditors served as a check ou managenot be discovered, or it may just as well know decided that the management had to share ment, and were therefore liable for any man-

The Court acknowledged difficulty in demaintain their professional scepticism even ciding how much blame must rest with the sation of an auditor as "a watchdog, but not when there is no surreptitious conduct. auditors and management respectively, stat- a bloodhound", it was stated: "Just because It also hears noting that the Court of ling that such appertionment "must necesthere is a watchdog on the premises, it does

blame was split down the middle in both the burglar alarm." But it is the parts of the judgments cases. This establishes firmly that the courts

of the company

No credence was given to the argument that the management could not be blamed as agement lapses they failed to detect.

Building on the well-known characterinot follow that the occupants can safely for-Unsurprisingly, in the final analysis, the get to bolt the doors and omit to switch on

The Court noted "the dual responsibili-

in the fulfilment of their occasionally or lapping duties", adding that "effective porate governance requires both sets of p fessionals to assiduously discharge th responsibilities".

Another key point grose in the Ga-Inns case. The directors had tried to are that they could not be held accountable duties which they had already delegated the fraudulent finance manager Ang.

The Court of Appeal disagreed, add that "they cannot claim that they were o tled to wholly rely on Any to ensure that accounts were in order. The fact that they r have locked accounting expertise did completely exponente them from their dut to reasonably ensure that the responde accounts were in order".

So, directors should not delude the selves that delegating responsibilities other officers relioves them of their duti And the same rules apply to non-execu

To enhance the reliability of corporal formation, it is necessary that both auditors company directors play their part. And wh they full to do so, it should be expected consequences will follow. As noted by Court: "Market confidence that errant t fessionals can be brought to book is an portant feature of a mature financial cent

The writer is a legal academic who also trained briefly as an auditor These are his personal views.

# 2 Types of Audit

- Internal Audit
  - Independent appraisal function established within an organisation to examine and evaluate its activities as a service to the organisation
    - e.g.
      - Financial Audits
      - Operational Audits
      - Fraud Audits
      - IT Audits
      - Compliance Audits
- External Audit
  - Objective is that in all material respects, statements are a fair representation of the organisation
    - e.g. Compliance with
      - SGX requirements (for Singapore Public-Listed Companies)
      - IRAS & ACRA requirements (for Singapore Pte. Ltd. Companies)
      - IRAS & ROS requirements (for Singapore Registered Societies)
      - Sarbanes Oxley Act (for US Companies)
      - Industry Regulations

e.g.

- MAS' TRM for Financial Institutions
- Cybersecurity Code of

# Generally Accepted Auditing Standards

- The auditor must have adequate technical training and proficiency.
- The auditor must have independence of mental attitude.
- The auditor must exercise due professional care in the performance of the audit and the preparation of the report.

#### Standards of Field Work

- Audit work must be adequately planned.
- The auditor must gain a sufficient understanding of the internal control structure.
- The auditor must obtain sufficient and competent evidence.

#### Reporting Standards

- The auditor must state in the report where statements were prepared in accordance with generally accepted principles.
- The report must identify those circumstances in which generally accepted principles were not applied.
- The report must identify any items that do not have adequate informative disclosures.
- The report shall contain an expression of the auditor's opinion on the statements as a whole.

### **IT Audit**

- Provide audit services where processes or data, or both, are embedded in technologies
  - Subject to ethics, standards and guidelines
  - Scope of IT audit coverage is increasing
  - IT governance is becoming part of corporate governance
- ".... most accounting transactions to be in electronic form without any paper documentation because electronic storage is more efficient.
  ... These technologies greatly change the nature of audits, which have so long relied on paper documents."

# 2 Types of IT Audit

#### - General

- To ensure proper and efficient use of IT resources in line with business objectives
  - No wastage or misuse
  - e.g. For baseline for technology refresh, system update or capacity planning

#### Security

- To ensure IT has adequate and proper safeguards, practices and policies to minimise risks
  - Protection of assets, data, systems and services

# Internal v. External

# Audit Internal Audit

- Done by one or more staff members of the organisation
- Internal audit team imposes independence on self
- Broad scope of audit
  - e.g. Financial matters, Operational matters, Capacity Planning, Technology or Process Refresh Review
- Represent interest of the organisation
- May be a preparation for external audit

#### - External Audit

- Done by independent professional auditors
- Independence defined by government, standard or industry
- Required by government for public-listed companies, and large private companies above a certain annual revenue level
- Represents interest of outsiders i.e. "the public"
- Standards, guidelines, certifications governed by national and/or industry authorities

# Audit – Corollary & Operational Objectives

- Establish Ownership, Chain of Command, Chain of Communication, Chain of Escalation
- Ensure Consistency of Processes, Policies and Behaviour
- Ensure Adequate Policies are In Place and are Working Properly
- Ensure Operational Integrity and Consistency, and Proper Treatment of Assets (including data)
- Ensure Morale of Stakeholders (shareholders, managers, staff, business partners, suppliers, customers and clients, and the public)
- Meet Compliance

 Whilst meeting the ultimate purpose of audits

i.e. For the betterment of quality of business, organisation, processes and

# **Audit Programme Objectives**

ISO 27000

- Top management should ensure that the audit programme objectives are established to direct the planning and conduct of audits and should ensure the audit programme is implemented effectively.
- Audit programme objectives should be consistent with and support management system policy and objectives.

#### -e.g.

- To contribute to the improvement of a management system and its performance
- To fulfil external requirements e.g. certification to management system standard
- To verify conformity with contractual requirements
- To obtain and maintain confidence in the capability of a supplier
- To determine the effectiveness of the management system
- To evaluate the compatibility and alignment of the management system objectives with the management
- System policy and the overall organisational objectives

# Audit Programme Components

- Scope
  - Incumbent Policy Documents and any other relevant documents
  - Previous Audit Reports
  - Statement of Applicability
  - Exceptions
  - Standards
  - Sampling (if any)
- Plan
- Logistics
  - Meeting dates, time, with whom
  - Facilities e.g. Meeting Room, Audit Room, Document, Support Services, Tools Required, Client Contract Officers, Client Accompanying Officers
- Timing
  - Start Date, End Date, Expected Duration, Milestones, Interim Meetings
  - Visit to different sites (Expected Date, Time, Duration)
  - Draft Final Report Meeting
  - Interim & Final Reports and Presentation (if any) Expected Dates

# **Audit Programme**

#### **Phases**

- 1. Planning
  - Understanding Client's Internal Control
- 2. Obtaining Evidence
  - Tests of Controls
  - Tests of Evidence (Reports, Records, Processes)
  - Substantive (Additional) Testing e.g. Using Computer Aided Tools, Analytical Procedures, etc.
- 3. Ascertaining Reliability
  - Materiality
- 4. Communicating Results
  - Audit Opinion i.e. Reporting

# Audit Programme

Planning

Process of determining in advance what to do, when and how to do it, and by whom

- Development of overall strategy
- Optimises transfer of knowledge from one audit exercise to another
- Must be written and documented for approval
- Purpose & Advantage
  - Adequate attention given to important areas of audit
  - Identify potential problems
  - Audit completed expeditiously and timely
  - Utilise staff properly
  - Determine audit procedures to use

# **Audit Programme Planning**

#### (cont'd)

- Audit Objectives
  - Central objective which an audit is to accomplish

#### - Audit Scope

- Area to be covered
- Basis to conduct audit
- Acts as defence for auditor in case of misunderstanding or allegation of areas not covered

#### - Elements

- Understanding auditee's organisation
- Determining audit objectives and scope
- Performing risk analysis
- Conducting an internal control review
- Setting the audit scope and objective
- Developing audit approach or audit strategy

### **Audit Risks**

- Audit Risk \* EXTREME CASE
  - The probability that the auditor will give an inappropriate opinion on the statements
    - i.e. the statements will contain materials misstatement(s)
      - i.e. The audit exercise is flawed or failed
- Control Risk
  - The probability that the internal controls will fail to detect material misstatements
    - Control itself is flawed in the first place, thus compromising the audit
- Detection Risk
  - The probability that the audit procedures will fail to detect material misstatements
- Inherent Risk \* EXTREME CASE
  - Risks that cannot be controlled
    - Material v. Immaterial
    - e.g. Economic conditions, weather, change of industrial trend, parent company M&A
    - Needs to be taken into account at audit planning stage to ensure minimal errors or misstatements

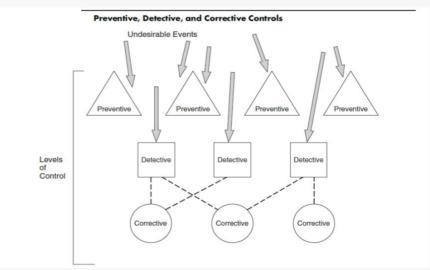
### **Controls**

- Policies, Practices and Procedures designed to:
  - Safeguard assets
  - Ensure accuracy and reliability
  - Promote efficiency
  - Measure compliance with policies (both internal policies and external industrial and/or governmental regulations)

#### Types of Controls

- Preventive Controls
- Detective Controls
- Corrective Controls
- Predictive Controls





# **Elements of an Control Environment**

- Integrity and ethical values of the management
- Structure of the organisation
- Participation of the organisation's board of directors & audit committee
- Management's philosophy and operating style
- Procedures for delegating responsibility and authority
- Management's methods for assessing performance
- External influences
- Organisation's policies and practices

# Techniques Used to Understand an Control Environment

- Understand the client's business and industry
- Describe the possible activities or tool for each control
- Study the organisation structure
- Determine if the board and audit committee are actively involved
- Assess the integrity of the organisation's management
- Conditions conducive to management fraud

### The IT Environment

- There has always been a need for an effective internal control system
- Design and oversight of that system has typically been the responsibility of accountants
- The IT environment complicates the paper systems of the past
  - Concentration of data
  - Expanded access and linkages
  - Increase in malicious activities in system v. paper
  - Opportunity that can cause management fraud (i.e. override)

### **Controls**

#### Limitations

- Honest Errors
- Circumvention via Collusion
- Management Override
- Coping with Changing Conditions
  - e.g. Especially in companies with high growth

# Risks of Weak Controls

- Intentional & Accidental
- Risks Potential threat to compromise use or value of organisational assets
- Types of Risk
  - Theft of Assets
  - Modification of Assets
    - Including corruption of information and/or information systems
  - Destruction of Assets
  - Disruption of (IT) Systems and/or Services

#### Baring loses \$1 billion due to lack of internal controls

On February 23, 1995, a 232 year-old British bank, Baring Bros. and Co., went bankrupt due to a loss of \$1 billion in futures trading by an employee, Nick Leeson. A statement by the Singapore International Monetary Exchange (SIMEX) attributed the loss to a failure of internal controls. [Associated Press, March 5, 1995]. Senior executives conceded that controls should have been much tighter. The organization ignored several warning signs of internal control weaknesses over several years:

- In March 1992, a senior executive in Singapore wrote a letter to the head of the equity-department in London stating, "My concern is that once again we are in danger of setting up a structure which will subsequently prove disastrous and with which we will succeed in losing either a lot of money or client goodwill or probably both. In my view, it is critical that we should keep clear reporting lines and if this office is involved in SIMEX at all then [Mr Lesson] should report to the Singapore office operations department not the London derivatives department."
- An internal audit report in the summer of 1994, cited lax internal controls and made a specific recommendation that the trading and settlement duties be separated. Mr Lesson at the time was in charge of both duties.
- Mr Lesson used an error account to hide trades that he did not want his superiors to know about.

Managers were reluctant to impose tight controls, which might have reduced profits and bonuses.

Source: Brauchli, Marcus W., Bray, Nicholas, and Sesit, Michael, "Barings PLC Officials May Have Been Aware of Trading Position," (1995) Wall Street Journal, March 6, 1995, p. 1, 6.

### **Risk Assessment**

- Changes in Environment
- Changes in Personnel
- Changes in Information System
- New IT
- Significant or Rapid Growth
- New Products or Services (Experience)
- Organisational Restructuring
- Foreign Markets
- New Accounting Principles

# Monitoring

- Separate procedures e.g. tests of controls
- Ongoing activities
  - Embedded Audit Modules (EAMs)
  - Continuous Online Auditing (COA)
- Use of management reports
- Summarising activities e.g. highlighting trends, identifying exceptions

# **Controls** | 2 Important Frameworks

- Committee of Sponsoring Organisations (COSO)
- Sarbanes-Oxley Act (SOX)

### COSO

- A management perspective model for internal controls
  - Developed over many no. of years
  - AICPA, AAA, FEI, IMA, IIA
- Ultimate Objective \* IMPORTANT
  - The best deterrent to fraud is strong internal controls
- Widely Adopted
  - AICPA adopted it into auditing standards SAS No. 78 (Consideration of Internal Control in a Financial Statement Audit)

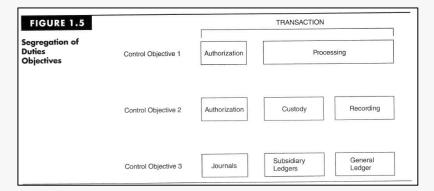
# COSO | Internal Control Framework The COSO Cube



### COSO | Control Activities

- Independent Verification

  - Management can assess
     e.g. the performance of individuals, integrity of the data in the records
- Transactional Authorisation
  - e.g. Sales only to authorised customers, Sales only if available credit limit
- Segregation of Duties
  - Principle: Fraud requires collusion
  - The "Four Eyes Principles"
  - e.g. Separate various steps in process
  - e.g. Incompatible duties
    - Authorisation v. Processing (e.g. Sales v. Authenticate Customers)
    - Custody v. Recordkeeping (e.g. Custody of Inventory v. DP of Inventory)
- Supervision
  - Serves as compensating control when lack of segregation of duties exists by necessity
- Accounting Records
- Access Controls
  - Direct (Assets)
  - Indirect (Documents that controls the assets)
  - Disaster Recovery



### **SO**

- = §404 Management Assessment of Internal Control
  - Management is responsible for establishing and maintaining internal control structure and procedures
  - Must certify by report on the effectiveness of internal control each year, with other annual reports
  - Ultimate Objective
    - Top management is responsible for proper financial control, practice and reporting
- -§302 Corporate Responsibility for Incident Reports
  - Financial executives must disclose deficiencies internal control and fraud (whether fraud is material or not)

### **SOX** | SOX v. IT

SOX does not directly regulate Information Technology. However, IT is the backbone of the financial processes that the law regulates. Section 302 requires that the CEO, CFO and an attesting public accounting firm certify the accuracy of financial statements and must certify that statements fairly present the operations and financial condition of the issuer. It also requires that material information that is used to generate reports be retained and made available to the public. This directly affects the IT and security departments because it is primarily IT systems that generate these periodic reports and which control e-mail, the main method of communication within most organizations. These systems must remain secure and reliable.

Section 404 is the most pertinent section within Sarbanes-Oxley to issues surrounding information security. It addresses the necessity of corporate management to be fully accountable for the integrity of all data associated with their financials. It states that management teams of public companies must establish and maintain adequate "Internal Controls" over their financial reporting systems to safeguard against unauthorized and improper use of financial information. Internal Controls are defined as "all control methods a company uses to prevent, detect and correct errors and frauds that might get into financial statements".

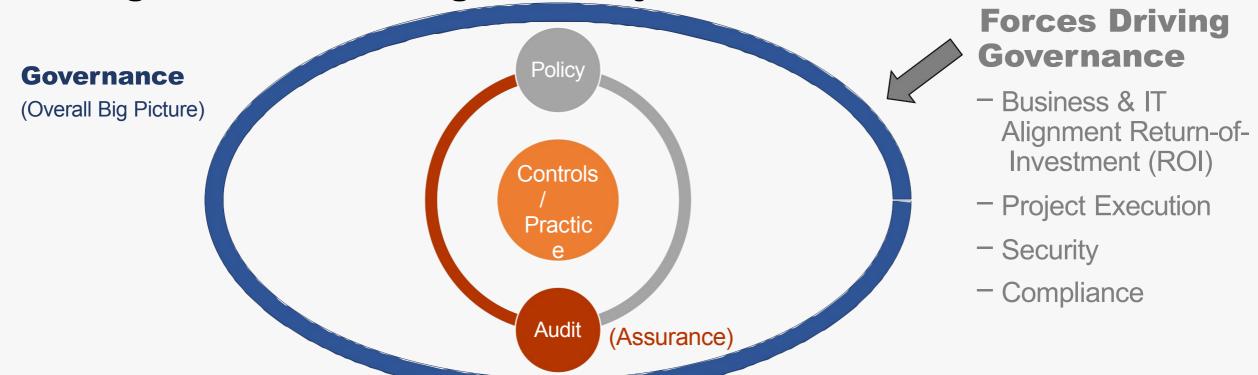
– SOX is not an IT law. But because of the great dependence of IT today in financial systems and services – regarding data, transactions, calculations, analysis, storage, communications, reporting etc. –, in order to meet SOX requirements, indirectly, the organisation's IT and security controls need to be adequate and in good order.

### **SOX** | The Significance

- The 1st law that holds top management responsible for the firm's operating integrity
- The 1st law where top management go to jail for serious non-compliance
  - Chairman, CEO, CFO, COO, MD, ED, etc.
  - Greatly increases compliance rate
  - Greatly improve IT and security
- Other countries outside the US including Singapore start to adopt parts, ideas or shades of it

# **Audit – Pinnacle of IT Governance**

- Responsibility of executives and board of directors.
- Consist of the leadership, orgainsational structures and processes that ensure that the enterprise's IT sustains and extends the organisation's strategies and objectives.



Governance Needs a Management Framework

ofGovernance Domains



# ISO/IEC 27001:2013 Information security management systems



ISO 27000 family of standards:

ISO/IEC 27001 –specifies the requirements for an ISMS ISO/IEC 27002 –guideline for the implementation of the controls in Ar



ISO/IEC 27000 - a general overview of information security and terms and definitions

ISO/IEC 27003 -general guidance for the implementation of an ISMS

ISO/IEC 27004 -advice on how organizations can monitor and measure the performance of their ISMS

ISO/IEC 27005 -guidance on risk management and ISO/IEC 27006 -for audit

and certification of ISMS ISO/IEC 27007 - guideline on how to audit an ISMS

-sector specific -

ISO/IEC 27011 -application of security controls in telecommunication

ISO/IEC TR 27015 -information security management in financial services

... and others