

# **FOX | ITACS**

**Master of IT Auditing & Cyber-Security**

 Fox School of Business  
TEMPLE UNIVERSITY®

# IT Audit Process

Prof. Liang Yao

Week One – Introduce to Audit

- Class Introduction
  - Undergraduate Major
  - Exposure to technology and audit
  - Working experience
- Syllabus Walk Through
- Introduce to Audit Function
  - Internal audit
  - External audit

# External Audit

A Certified Public Accountant **Firm (CPA firm)** is simply a **firm** that is licensed in the state in which they operate and owned, at least in part by a Certified Public Accountant. **CPA firms** are comprised of auditors who conduct both public and private audit engagements.

CPA firms provides *reasonable assurance* that the financial statements present fairly, in all material respects, the financial position of the company in conformity with general accepted accounting principles (GAAP), and as applicable, that internal controls over financial reporting are operating effectively.

CAP firms' attestation provide stakeholders to use the company's financial statement with greater confidence.

**Question:** Limitation of the external audit?

# External Audit (cont.) - GAAS

## General Accepted Audit Standards (AICPA)

- Adequate technical training and proficiency
- Independence in mental attitude
- Due professional care
- Adequate planning and supervision
- Understand the clients' internal control structure (IT Auditors can play a big role here)
- Sufficient competent evidence
- Reporting standards

# External Audit (cont.)

## Financial Statement Opinion (non-IT)

- Consolidated financial statement of parent and subsidiaries
- Related statement of financial condition
- Income statement
- Changes in stockholders' equity
- Cash flow statement

## Four Type of Audit Opinions (Financial)

- Unqualified Opinion
- Qualified Opinion
- Adverse Opinion
- Disclaimer of Opinion

# External Audit (cont.)

Type of Report	Auditors' conclusion
Unqualified	Auditor concludes that financial statements are presented fairly
Qualified	Auditor concludes that financial statements are presented fairly, except for special items
Adverse	Auditor concludes that financial statements are not presented fairly
Disclaimer	Auditor has not concluded whether financial statements are presented fairly (inconclusive)

*Auditing, An Integrated Approach Sixth Edition*

# External Audit (cont.)

## Internal Control Over Financial Reporting (SOX)

- IT Auditors is heavily involved in assessing ICOFR for in scope IT infrastructure and applications

## ICOF finding rating

- Significant Deficiency - A **significant deficiency** is a **deficiency**, or a combination of **deficiencies**, in internal control over financial reporting, that is less severe than a material weakness yet important enough to merit attention by those responsible for oversight of the company's financial reporting.
- Material Weakness - A **material weakness** is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a **material** misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

*Source - Auditing Standards - PCAOB*

# External Audit (cont.)

IT deficiencies Example:

- Access control – infrastructure and applications in scope
- Change management
- Hardware and Software maintenance (EOL/EOS)
- Information Security – weak password, lack of audit trail, in adequate certification
- Physical access to critical IT assets (data centers, documentation)
- Disaster recovery and resumption



## External Audit (cont.)

- External auditors should report directly to the Board or the Audit Committee
- External auditors should prepare an Engagement Letter. Engagement Letter defines the term of the audit engagement includes:
  - Audit purpose and scope
  - Period to be covered
  - Deliverables (e.g. audit report)
  - Audit fees for services agreed upon

# External Audit (cont.)

- External auditors should report to the Board or the Audit Committee the following:
  - Application of accounting principles
  - The firm's accounting policies and practices
  - All alternative treatments of financial information within GAAP that has been discussed with management
  - Any disagreements with management about matters that could be significant to the company's financial statement or the auditor's report
  - Other "material" written communications between the auditor and management

## External Audit (cont.)

- External auditors should avoid any “independent” concerns raised from outside party
  - Attestation services vs. Consulting services
  - E.g. if an accounting firm engaged “readiness services” for a company (SOX, SSAE 16, etc.), should it also be the external audit to attest the compliance?

# Internal Audit

Internal Audit Definition by The Institution of Internal Audit (IIA):

*“Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.”*

# Internal Audit (cont.)

- Internal Audit Charter
- Internal Audit Organizational Structure
- Internal Audit Independence
- IS Audit Function
- Internal Audit Proficiency and Staffing
- Types of Internal Audit Engagement

# Internal Audit Charter

- What is an internal audit charter?
- Why should internal audit have a charter?
- Who is responsible for the charter?
- What should the contents of a charter be?

# Sample Internal Audit Charter



PDF File

IT Audit Process

Prof. Liang Yao

# Internal Audit Organizational Structure

Why IA should report directly and solely to the audit committee for both audit issues and administrative issues (ideally)?

- In reality, dual reporting arrangement is common
- Coordinated with other risk functions
- Both dual and coordinated arrangement may potentially diminish independence and objectivity



# Auditors' Independence and Objective

How to determine if the internal audit is independent?

- Leadership (Chief Auditor or Audit Executive)'s authority and reporting line
- Communication with the Board and Audit Committee (frequency, channel, formality)
- Audit Charter

# Auditors' Independence and Objective

How to determine if the internal audit is objective?

- Avoid conflict of interest
- Reporting any circumstance may compromise objectivity
- Coverage Rotation
- No operational responsibilities
- Grace period – not to audit areas auditors had operational responsibilities within the same company
- Disclosure
- Audit recommendations – What vs. How

# Audit Types

- Financial Statement Audit – whether the overall financial statements are stated in accordance with specified criteria
- Operational Audit – Operational efficiency and effectiveness
  - IT Audits
    - Infrastructure
    - Applications
    - Integrated
- Compliance Audit

# Audit Types

Audit Type	Example	Quantifiable Info.	Established Criteria	Available Evidence
Financial	GM's annual financial statements audit	GM's financial statement	GAAP	Documents, records, etc.
Operational	Mainframe Audit	N/A	COSO/CoBIT/ISO 27000	Policies and procedures, configurations, etc.
Compliance	PCI DSS Compliance Audit	N/A	PCI DSS Standard	Policies and procedures, configurations, etc.
IT Audit	Mainframe	N/A	Policies and procedures, Industry best practice	
Integrated Audit	End-to-end payment system	Transaction volume, transaction amount	Policies and procedures; relevant regulatory guidance	
Specialized Audit	SSAE 16	N/A	AICPA guidance	