Lesson 11

Audit and Controls of Information Systems

Why Audit Information Systems?

- Ensure data **integrity** and **accuracy**.

- Verify **security** measures.

- Evaluate compliance with **policies/regulations**.

What is an IS Audit?

- Independent **examination** of IS controls.

- Objective: Determine **adequacy** and **effectiveness**.

- Covers **hardware, software, data, people, and procedures.**

Types of IS Controls

- **Preventive**: Stop problems before they occur (e.g., access controls).

- **Detective**: Identify issues after they occur (e.g., logs).

- **Corrective**: Fix identified problems (e.g., recovery procedures).

IT General Controls (ITGCs)

- Data center **operations**

- System software **acquisition** and **maintenance**

- Access **security**

- Application system **development**

Application Controls

- **Input Controls** (validation checks)

- **Processing Controls** (run-to-run totals)

- **Output Controls** (distribution logs)

The IS Audit Process

- **Planning**: Understand the system and objectives.
- **Fieldwork**: Gather evidence, test controls.
- **Evaluation**: Analyze findings, identify gaps.
- **Reporting**: Deliver audit findings and recommendations.
- **Follow-up**: Verify action plans are executed.

Risk Assessment in IS Audits

- **Identify** potential risks

- **Assess** impact and likelihood

- **Prioritize** audit focus

Tools & Techniques

- **Audit** software (e.g., ACL, IDEA)

- **Interviews** and **observations**

- Log **reviews**

- **Control** self-assessments

Real-World Examples

- **Banking systems** (e.g., transaction logs)

- **Healthcare IS** (e.g., access to medical records)

- **E-commerce sites** (e.g., payment process auditing)

IS Auditing in Field Projects

- **Ensuring** data collection systems are secure

- **Reviewing** system logs during analysis

- **Evaluating** risks in your project scope

Common Audit Findings

- **Poor** access control

- **Lack** of backup procedures

- **Incomplete** documentation

- **No change** management process

Summary

- Audits **ensure** system reliability and security.

- **Controls** are your toolkit.

- Apply these concepts in your field projects.

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Q&A