

**KONSEP DASAR AUDIT
TEKNOLOGI INFORMASI**

**Materi 1.
Pengantar Audit Sistem
Informasi**

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FRAMEWORK SI

- Framework 1 : Linked System

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FRAMEWORK SI...

- Framework 2 : Nested System

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FRAMEWORK SI...

- Framework 3 : Internal System

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TERMINOLOGI SI, CBIS DAN IT

- **Information Systems (IS)**
 - involve more than just computers
 - an successful application of an IS requiring an understanding of the business and its environment that is supported by the IS
 - in learning about IS, not sufficient just to learn about computers

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TERMINOLOGI SI, CBIS DAN IT...

- **Computer-Based Information Systems (CBIS)**
 - an information system that uses computer technology to perform some or all of its intended tasks
 - may include hardware, software, database, network, procedures, or people

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TERMINOLOGI SI, CBIS DAN IT...

- **Information Technology (IT)**
 - include the hardware, databases, software, networks, and other information devices (in narrow definition)
 - usually interchangeably with information systems
 - a collection of several information systems, users, and management for an entire organization (in broad sense)

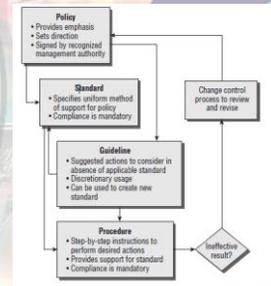
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Policies, Standards, Guidelines, and Procedures on IS Audit

- Organizations typically have four types of documents in place:
 - Policy
 - Standard
 - Guideline
 - Procedure



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Policy in IT Audit

- These are high-level documents signed by a person of significant authority (such as a corporate officer, president, or vice president).
- The policy is a simple document stating that a particular high-level control objective is important to the organization's success. Policies may be only one page in length. Policies require *mandatory* compliance.
 - The highest level of people in charge is the officers of upper management. Chief executives, financial officers, and operating officers are the principal issuers of policies.

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Standards in IT Audit

- These are mid-level documents to ensure uniform application of a policy. After a standard is approved by management, compliance is *mandatory*.
- All standards are used as reference points to ensure organizational compliance. Testing and audits compare a subject to the standard, with the intention of certifying a minimum level of uniform compliance.
 - Public standards include the International Organization for Standardization (ISO), Sarbanes-Oxley, and most government laws.

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Guidelines in IT Audit

- These are intended to provide advice pertaining to how organizational objectives might be obtained in the absence of a standard.
- The purpose is to provide information that would aid in making decisions about intended goals (should do), beneficial alternatives (could do), and actions that would not create problems (won't hurt).
 - Guidelines are often *discretionary*

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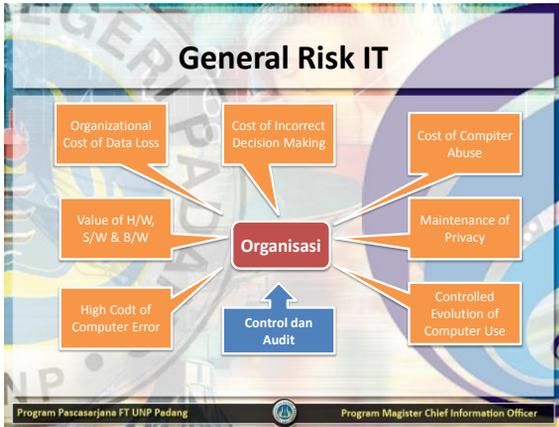
Procedures in IT Audit

- These are "cookbook" recipes for accomplishing specific tasks necessary to meet a standard.
- Details are written in step-by-step format from the very beginning to the end. Good procedures include common troubleshooting steps in case the user encounters a known problem.
- Compliance with established procedures is *mandatory* to ensure consistency and accuracy.
- On occasion a procedure may be deemed ineffective. The correct process is to update the ineffective procedure by using the change control process described later.
 - The purpose of a procedure is to maintain control over the outcome.

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Define of IT Audit

- Ron Weber, Information System Control & Audit – 1999
 - Information systems auditing is the process of collecting and evaluating evidence to determine whether a computer system safeguards assets, maintains data integrity, allows organizational goals to be achieved effectively, and uses resources efficiently. Sometimes information systems auditing has another objective – which is ensuring that an organization complies with some regulation.

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Define of IT Audit...

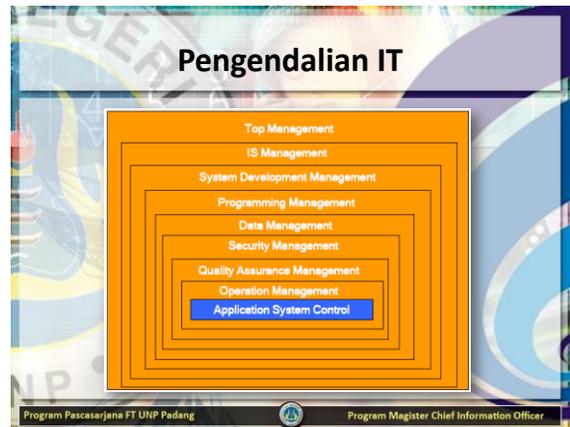
- ISACA, CISA Review Manual 2006
 - The process of collecting and evaluating evidence to determine whether information systems and related resources adequately safeguards assets, maintain data and system integrity, provide relevant and reliable information, achieve organizational goals effectively, consume resources efficiently, and have in effect internal controls that provide reasonable assurance that operational and control objectives will be met and that undesired events will be prevented, or detected and corrected, in a timely manner.

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- ### Konsep Audit TI
- Sejumlah kata kunci:
 - Pengumpulan dan penilaian bukti
 - Keyakinan memadai
 - Pengamanan aset - menjamin confidentiality & availability
 - Integritas Data - menjamin completeness, accuracy & consistency
 - Efektifitas – tujuan tercapai
 - Efisien - menggunakan sumber daya secara optimal
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- ### Various Auditing Standards
- American Institute of Certified Public Accountants (AICPA) and International Federation of Accountants (IFAC).
 - Financial Accounting Standards Board (FASB) with Statement on Auditing Standards
 - (SAS), standards 1 through 114, which are referenced and applied by the AICPA and IFAC.
 - Generally Accepted Accounting Principles (GAAP).
 - Committee of Sponsoring Organizations of the Treadway Commission (COSO), providing the COSO internal control framework that is the basis for standards used in global commerce. COSO is the parent for the standards used by governments around the world.
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Various Auditing Standards...

- Public Company Accounting Oversight Board (PCAOB) of the Securities and Exchange Commission, issuing audit standards AS-1, AS-2, AS-3, AS-4, and AS-5. PCAOB is the standards body for Sarbanes-Oxley, including the international implementation by the Japanese government and European Union (US-SOX, J-SOX and E-SOX).
- Organization for Economic Cooperation and Development (OECD), providing guidelines for participating countries to promote standardization in multinational business for world trade.
- International Organization for Standardization (ISO), which represents participation from more than member governments.
- U.S. National Institute of Standards and Technology (NIST), providing a foundation of modern IS standards used worldwide. When combined with British Standards/ISO (BS/ISO), you get a wonderful amount of useful guidance.

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Various Auditing Standards...

- U.S. Federal Information Security Management Act (FISMA), which specifies minimum security compliance standards for all systems relied on by the government, including the military and those systems operated by government contractors. (The U.S. government is the world's largest customer.)
- IS Audit and Control Association (ISACA) and IT Governance Institute (ITGI) issue the Control Objectives for IT (COBIT) guidelines which are derived from COSO with a more specific emphasis on information systems.
- Basel Accord Standard II (Basel II), governing risk reduction in banking.

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Ethic Code of IT Auditor

- Support the implementation of, and encourage compliance with, appropriate standards, procedures and controls for information systems.
- Perform their duties with due diligence and professional care, in accordance with professional standards and best practices
- Serve in the interest of stakeholders in a lawful and honest manner, while maintaining high standards of conduct and character, and not engage in acts discreditable to the profession.
- Maintain the privacy and confidentiality of information obtained in the course of their duties unless disclosure is required by legal authority. Such information shall not be used for personal benefit or released to inappropriate parties.
- Maintain competency in their respective fields and agree to undertake only those activities, which they can reasonably expect to complete with professional competence
- Inform appropriate parties of the results of work performed; revealing all significant facts known to them
- Support the professional education of stakeholders in enhancing their understanding of information systems security and control.

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