

ABSTRACT

Information technology auditing is a process of collecting and evaluating evidences to assess whether the computer systems used have protected the organization's assets, have protected the data integrity, have helped the organization's goal achievement effectively, and have used the available resources efficiently. In performing the auditing process, an auditor collects the sufficient evidences through various techniques, such as survey, interview, observation, and document review. The evidences collected also include electronic evidences which are softcopy file format. Besides doing the field research, the auditor also writes the report. This report should mention the organization audited, objected readers, and limitations of report distribution. This report should also include finding, conclusion, and recommendation just like the common audit report.

Keywords: Audit, Information Technology

DAFTAR ISI

| | |
|---|------|
| LEMBAR PENGESAHAN | i |
| PRAKARTA | ii |
| PERNYATAAN PUBLIKASI LAPORAN PENELITIAN..... | iv |
| PERNYATAAN ORISINALITAS LAPORAN PENELITIAN..... | vi |
| ABSTRACT | vii |
| DAFTAR ISI..... | viii |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL | xi |
| BAB I PENDAHULUAN | 1 |
| 1.1 Latar Belakang Masalah..... | 1 |
| 1.2 Rumusan Masalah | 2 |
| 1.3 Tujuan Pembasan | 2 |
| 1.4 Ruang Lingkup Kajian | 2 |
| 1.5 Sumber Data | 4 |
| 1.6 Sistematika Penyajian | 4 |
| BAB II KAJIAN TEORI | 6 |
| 2.1 Sistem Informasi | 6 |
| 2.1.1 Data | 8 |
| 2.1.2 Jenis Data | 9 |
| 2.1.3 Informasi | 10 |
| 2.1.4 Sistem | 10 |
| 2.1.5 Analisis Sistem | 12 |
| 2.1.6 Masalah Keamanan dalam Sistem Informasi | 13 |
| 2.2 Pengertian Audit | 14 |
| 2.2.1 Jenis Audit | 15 |
| 2.2.2 Proses Audit | 16 |
| 2.2.3 Audit Sistem Informasi | 17 |
| 2.2.4 Tugas Auditor Sistem Informasi | 18 |
| 2.2.5 Cara Audit IT dilakukan | 20 |
| 2.2.6 Alasan Mengapa Audit IT diperlukan | 21 |
| 2.2.7 IT Audit Standard Tools/ Framework..... | 22 |
| 2.3 COBIT 4.1 | 28 |
| 2.3.1 AI1 <i>Identify Automated Solutions</i> | 39 |
| 2.3.2 AI2 <i>Acquire and Maintain Application Software</i> | 42 |
| 2.3.3 AI3 <i>Acquire and Maintain Technology Infrastructure</i> | 46 |
| 2.3.4 AI4 <i>Enable Operation and Use</i> | 49 |
| 2.3.5 AI7 <i>Install and Accredit Solution and Changes</i> | 52 |
| 2.3.6 DS2 <i>Manage Third-Party Services</i> | 56 |
| 2.3.7 DS3 <i>Manage Performance and Capacity</i> | 59 |
| 2.3.8 DS5 <i>Ensure System Security</i> | 62 |
| 2.3.9 DS10 <i>Manage Problems</i> | 66 |
| 2.3.10 DS11 <i>Manage Data</i> | 70 |
| 2.3.11 DS12 <i>Manage the Physical Environment</i> | 73 |
| 2.3.12 DS13 <i>Manage Operations</i> | 76 |
| BAB III ANALISIS DAN PERANCANGAN | 80 |
| 3.1 Sejarah Perusahaan | 80 |

| | |
|--|------|
| 3.2 Bentuk dan Badan Hukum Perusahaan | 81 |
| 3.3 Bidang Pekerjaan Perusahaan | 81 |
| 3.4 Visi, Misi, dan Target Perusahaan | 82 |
| 3.5 Struktur Organisasi | 82 |
| 3.6 Tugas dan tanggung Jawab Organisasi | 83 |
| 3.7 Pemahaman Kontrol Proses | 85 |
| 3.7.1 <i>Identify Automated Solutions</i> (AI1)..... | 85 |
| 3.7.2 <i>Acquire and Maintain Application Software</i> (AI2) | 89 |
| 3.7.3 <i>Acquire and Maintain Technologi Infrastructure</i> (AI3)..... | 93 |
| 3.7.4 <i>Enable Operation and Use</i> (AI4) | 97 |
| 3.7.5 <i>Install and Accredit Solutions and Changes</i> (AI7) | 100 |
| 3.7.6 <i>Manage Third-party Service</i> (DS2) | 103 |
| 3.7.7 <i>Manage Performance and Capacity</i> (DS3) | 107 |
| 3.7.8 <i>Ensure System Security</i> (DS5) | 111 |
| 3.7.9 <i>Manage Problem</i> (DS10) | 115 |
| 3.7.10 <i>Manage Data</i> (DS11) | 118 |
| 3.7.11 <i>Manage the Physical Environment</i> (DS12) | 122 |
| 3.7.12 <i>Manage Operations</i> (DS13) | 126 |
| BAB V SIMPULAN DAN SARAN | 130 |
| 5.1 Simpulan | 130 |
| 5.2 Saran | 131 |
| DAFTAR PUSTAKA | .xii |

DAFTAR GAMBAR

| | | |
|----------|--|----|
| Gambar 1 | Pengelompokan Sistem Informasi..... | 7 |
| Gambar 2 | Metodologi Audit Teknologi Informasi..... | 21 |
| Gambar 3 | <i>Cobit Family of Products</i> | 29 |
| Gambar 4 | <i>Cobit Business Control Objectives-IT Governance</i> | 37 |
| Gambar 5 | <i>Cobit Control Objectives</i> | 38 |
| Gambar 6 | Struktur Organisasi Perusahaan | 83 |

DAFTAR TABEL

| | | |
|------------|---|-----|
| Tabel I | Definisi Sistem Informasi | 6 |
| Tabel II | Ancaman terhadap Sistem Informasi | 13 |
| Tabel III | Kriteria Kerja Cobit | 30 |
| Tabel IV | <i>Level of Maturity</i> | 33 |
| Tabel V | <i>Domain & High Level Controls Cobit</i> | 35 |
| Tabel VI | <i>Goals and Metrics Identify Automated Solutions (AI1)</i> | 87 |
| Tabel VII | <i>Acquire and Maintain Application Software (AI2)</i> | 92 |
| Tabel VIII | <i>Acquire and Maintain Technologi Infrastructure (AI3)</i> | 95 |
| Tabel IX | <i>Enable Operation and Use (AI4)</i> | 99 |
| Tabel X | <i>Install and Accredit Solutions and Changes (AI7)</i> | 102 |
| Tabel XI | <i>Manage Third-Party Services (DS2)</i> | 106 |
| Tabel XII | <i>Manage Performance and Capacity (DS3)</i> | 109 |
| Tabel XIII | <i>Ensure System Security (DS5)</i> | 113 |
| Tabel XIV | <i>Manage Problems (DS10)</i> | 116 |
| Tabel XV | <i>Manage Data (DS11)</i> | 120 |
| Tabel XVI | <i>Manage the Physical Environment (DS12)</i> | 124 |
| Tabel XVII | <i>Manage Operations (DS13)</i> | 128 |