

Tutorial Notes

Class: B.Com (Hons.) Semester III (CC-5)

Subject: Auditing and corporate Governance

Topic: Auditing in an EDP Environment, General Approach, Special Techniques for an EDP-Based Audit, CAATs introduction, Need, Considerations and Types.

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### **Auditing in an EDP Environment**

#### **INTRODUCTION**

In recent years there has been a rapid development in the use of computers as a means of producing financial information. This development has created certain problems for the auditor in that although general auditing principles have not been affected, it is sometimes necessary to use specialised auditing procedures and techniques.

As a result of this, there has emerged from within the accounting profession a group of **electronic data processing (EDP)** audit specialists, equipped with sufficient technical expertise to make an intelligent analysis of complex computer audit situations.

#### **General Approach to an EDP-Based Audit**

It is normal for the auditor to base his approach to an EDP-based audit upon two completely separate types of review:

##### ***Organisational Review***

Organisational review is the review of the organisational controls within the computer installation itself. This review seeks to examine the internal control within the computer installation, to ensure the following:

1. An acceptable standard of discipline and efficiency is maintained.
2. An adequate division of duties exists, thus preventing any undue concentration of functions.

Serious weaknesses in internal control within the EDP department itself can throw doubt on the validity of all the data it produces.

### ***System Review***

System review is a detailed review of the controls operating within each computer-based accounting system. This review seeks to establish that controls operate within each individual system which, inter alia, ensure the following:

1. All data is completely and accurately processed
2. Permanent data is adequately protected
3. A satisfactory 'audit trail' exists

Both types of review are carried out by the use of questionnaires and these questionnaires are based on the 'key question' principle. It is necessary to evaluate both the general and computer questionnaires together to obtain a proper understanding of the system and to assess the significance of individual controls.

### **Special Techniques for Auditing in an EDP Environment**

As in the case of manual systems, auditing in an EDP environment is done for the following purposes:

1. To study and evaluate the system through which the information under audit is generated, including the various internal controls in the system.
2. To carry out appropriate substantive procedures.

Due to the special characteristics of an EDP environment, auditors often use the computer for performing several compliance procedures as well as substantive procedures. The techniques, which involve the use of the computer for audit purposes, are known as 'Computer assisted audit techniques' (CAATs).

### **CAATs**

**Computer assisted audit techniques** involve the use of computers in the process of an audit rather than limiting it to an entirely manual approach. CAATs are defined as computer based tools and techniques, which facilitate auditors to increase their personal productivity as well as that of audit function. CAATs are software tools for auditors to access, analyse and interpret data and to draw an opinion for an audit objective.

### **Need for CAATs**

Statement on AAS-16 states that effectiveness and efficiency of audit procedures may be improved through use of CAATs. CAATs may be used in performing various auditing procedures, including the following:

- Tests of details of transactions and balances
- Analytical procedures
- Tests for general controls
- Sampling programmes to extract data for audit testing
- Tests of application controls
- Re-performing calculations performed by the entity's accounting system

Guidance note on CAAT issued by the Institute of Chartered Accountants of India describes CAATs as important tools for the auditor in performing audits. During the course of audit, the auditor has to obtain sufficient, relevant and useful evidence to achieve the audit objectives effectively. Audit findings and conclusions are to be supported by appropriate analysis and interpretation of the evidence.

In auditing a computerised environment where all significant operations are computerised, it may be impractical to perform audit completely and with assurance unless the auditor uses CAATs for collection and evaluation of audit evidence by performing both compliance and substantive tests. By using CAATs, it is possible for the auditor to perform audit more effectively and efficiently and also have greater assurance on the audit process.

### **Considerations in the use of CAATs**

When planning an audit, the auditor may consider an appropriate combination of manual and computer assisted audit techniques. In determining whether to use CAATs, the factors to be considered include the following:

- The IT knowledge, expertise and experience of the audit team
- The availability of CAATs and suitable computer facilities and data
- The impracticability of manual tests
- Effectiveness and efficiency and
- Time constraints

Before using CAATs the auditor considers the controls incorporated in the design of the entity's computer system to which CAAT would be applied in order to determine whether, and if so, CAAT should be used.

## Types of CAATs

CAATs can be broadly categorised into the following three types:

1. ***Generalised audit software (GAS)*** these are also referred as Package Programmes. GAS refers to generalised computer programmes designed to perform data processing functions such as reading data, selecting and analysing information, performing calculations, creating data files and reporting in a format specified by the auditor. GAS is standard off-the-shelf audit software, which can be used across enterprises and platforms.
2. ***Specialised audit software (SAS)*** These are also referred to as Purpose-Written programmes. They perform audit tasks in specific circumstances. These are specifically written for performing audit tests for specific type of applications. These programmes may be developed by the auditor, the entity being audited or an outside programmer hired by the auditor. In some cases, the auditor may use an entity's existing programmes in their original or modified state because it may be more efficient than developing independent programmes.
3. ***Utility software*** These are used by an entity to perform common data processing functions, such as sorting, creating and printing files. Utility software also includes utility programmes available in system programmes for performing debugging or analysis of various aspects of usage/access. These programmes are generally not designed for audit purposes but can be used for performing specific tests.