# ECOSAI

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The ECOSAI (Economic Co-operation Organization Supreme Audit Institutions) is a regional forum of the Supreme Audit Institutions of the South and Central Asian Regions. Founded in 1994, the ECOSAI aims at promoting the state auditing profession in member countries, through exchange of ideas, experiences and by holding seminars, conferences, workshops and training courses.

The ECOSAI Circular is published yearly. The 9th ECOSAI Governing Board Meeting, held at Islamabad, Pakistan on January 26, 2004 had decided that in future the ECOSAI Circular will be published every year before the BoG meeting by the SAI Pakistan. It was also suggested that besides covering general activities, the ECOSAI Circular should also include some activities on professional issues.

The editors invite submission of articles, special reports, and news items which should be sent to the International Relations and Coordination Wing of the SAI Pakistan at the following address:

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Opinions and beliefs expressed in the circular are those of editors or individual contributors, and do not necessarily reflect the views or policies of the organization.

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# APPOINTMENT OF THE NEW PRESIDENT OF THE SUPREME AUDIT COURT OF IRAN

Dr. Mohammad Reza Rahimi was officially appointed as the new President of the Supreme Audit Court of Iran on the 1st November 2004. He was born in Ghorveh, Iran in 1954 and besides having studied law and obtained a Ph.D degree, he has had the following designations:



■ Magistrate of the Revolutionary Prosecutor's Office.

■ Deputy Governor of Ghorveh

■ Chairman of the First Ghorveh City Council

■ Governor of Sanandadj - Four years

■ Member of the Second Parliament- representative of Ghorveh

■ Member of the Third Parliament - representative of Ghorveh

■ Member of the Fourth Parliament - representative of Sanandadj, Kamyaran, and Divandareh

■ Member of the Board of Governors at the Fourth Parliament and head of the Greece and Iran collaboration group.

■ BoG (Board of Governors) member of the Parliamentary Committees during the 2nd, 3rd, and 4th Parliament- The Judiciary and legal Committee, and the Foreign Policy Committee.

■ President of the Iranian Athletics Federation

■ Member of the BoG of the National Olympics Committee.

■ Member of the Asian Athletics Technical committee.

■ Governor of Kurdistan province - Recognized as the model Governor the same year.

■ Councillor of the Head of the Iranian Judiciary.

■ Head of the Tehran Azad Law Faculty.

■ Distinguished Lawyer of the Islamic Republic Iran

■ President of the Supreme Audit Court of Iran

Dr. Rahimi is married and has two children



### Brief on Control and Audit Office, Afghanistan

### **Bio-data of Head of CAO:**

Professor Mohammad Sharif "Sharifi" son of Mohammad Yousof is 48 years old. He earned his Masters degree in Mathematics and Philosophy from the University of Kabul. He has done some publications in Physics.

Prof. Sharifi has been working for CAO since his appointment as the Auditor General in March 2002. He had also served the Afghan Government in the following posts:

- Head of Education of the Central Zone
- Head of Information and Culture Directorate of Parwan province
- Governor of Parwan Province
- Professor at Kabul University of Education

The CAO with the assistance of PKF has recently provided some technical training courses not only for the staff of CAO but also for internal audit staff of government ministries and organizations. Some of these courses are:-

- Technical training course for CAO staff from 10 to 19 May, 2004.
- Technical training course for CAO staff from 12 July to 11 August, 2004.
- IT courses for CAO staff.
- English courses for CAO staff.

### **Recent Developments in CAO**

The CAO with the assistance of PKF, an international firm of auditors, has carried out the audits of World Bank funded Projects, Afghanistan Reconstruction Trust Fund (ARTF) and UNDP funded Projects. The assistance provided by the contracted firm has been very effective for CAO and has introduced modern audit methods in compliance with INTOSAI auditing standards. The technical training courses provided by the same firm include Audit Cycle, Planning, Field Work, Sampling, Reporting, IT, and English Language. Meanwhile, the CAO has aslo set up a well stocked library for the staff.

#### **Publications:**

Tor the first time a publication "Audit" "has been issued by the CAO.

## REPORT ON ECOSAI CONGRESS

The office of the Auditor-General of Pakistan hosted the ECOSAI Congress 2004 at Islamabad from January 26-28, 2004. Delegates from SAIs of Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, and Turkey attended the ECOSAI Congress. A delegation from Turkish Republic of Northern Cyprus (TRNC) attended the meetings as observer.

The events included the 4th ECOSAI Training committee meeting on January 25, 2004, the 9th Governing Board Meeting on January 26, 2004 and the Extra-Ordinary Session of the ECOSAI Assembly spread over two days. The opening ceremony was held at Islamabad Marriot Hotel on January 27, 2004 with Mr. Khalil-ur-Rehman, Deputy Chairman, Senate of Pakistan as the Chief Guest, while the Plenary Session was held on January 28, 2004, Chaired by Sayed Kazem Mirvalad, President of the Supreme Audit Court of Iran and president of ECOSAI.

The 9th Governing Board Meeting and the Extra-Ordinary Session of Assembly considered an elaborate agenda and arrived at certain important decisions to further promote ECOSAI's objectives. The participants stressed the need for increasing cooperation among the SAIs of the ECO region and discussed various avenues for closer interaction and exchange of experiences. The congress decided to further expand the scope of ECOSAI's training activities for capacity building of member SAIs, besides taking other significant decisions like printing of ECOSAI Directory and launching of ECOSAI website.

The ECOSAI Assembly unanimously elected Mr. Mehmet Damar, President, Turkish Court of Accounts as the new President of ESOSAI, and decided to hold the next regular session of ECOSAI Assembly in Turkey in the year 2007.



Group photograph of delegates on concluding ceremony of Extra-Ordinary Session of ECOSAI Assembly at Islamabad on January 28, 2004

A number of ceremonial events and social programs were organized for the delegates and accompanying persons participating in the ECOSAI Congress 2004. These included cultural tours and visits to places of interest, such as Daman-e-Koh, Shakar Parian, Lok Virsa (Folk Heritage) Museum, Taxila Museum and city markets.

The visitors were taken on a half day excursion tour of Bhurban, Muree Hills, on January 27, 2004. Mr. Shaukat Aziz, Minister for Finance and Economic Affairs, Islamic Republic of Pakistan, hosted a dinner in honor of ECOSAI delegates on January 27, 2004. This spectrum of Social activities provided excellent opportunities for delegates and accompanying persons to acquaint themselves with Pakistan, its people and culture, as well as to strengthen existing friendships and develop new ones.



Mr. Shaukat Aziz, Minister of Finance and Economic Affairs, Pakistan, Addressing the ECOSAI delegates on the occasion of Dinner hosted by him.



Group photograph of ECOSAI delegates on the occasion of 9th Governing Board Meeting at Islamabad on January 26, 2004



Participant discussing a point during the 4th ECOSAI Training Committee Meeting at Islamabad on January 26, 2004



The delegates and accompanying persons on the occasion of farewell lunch of ECOSAI Congress 2004.



The President and Secretary General of ECOSAI during the Plenary Session.



A view of the Plenary of Extraordinary Session of ECOSAI Assembly.



Head of delegations of SAIs of Azerbaijan, Turkey, Kazakhstan and Pakistan during the plenary of Extra Ordinary Session of ECOSAI Assembly

# STRENGTHENING THE AUDIT CAPACITY OF THE TURKISH COURT OF ACCOUNTS

### Introduction

As one of the fundamental institutions of Turkey, Turkish Court of Accounts (TCA) has developed a comprehensive modernisation project in cooperation with the National Audit Office of UK. The project, having a duration of 24 months, forms a part of Turkey's accession activities to the European Union. The project title is "Strengthening the Audit Capacity of the Turkish Court of Accounts."

Overall objectives of the project are;

- To support the TCA to adequately assess improvements needed in public sector management, accountability and control.
- To help the TCA obtain an adequate response to its recommendations.
- To ensure the effectiveness and efficiency of the public financial control systems in Turkey.

The Project is aimed at enabling the Turkish Court of Accounts to fully assume its role as external auditor in line with international standards and leading European Union best practices.

After approval of the Project by the European Commission, TCA selected the proposal of the National Audit Office of the United Kingdom. The Court of Auditors of Spain is also providins support to the Project. At the moment TCA is in the process of covenanting with the NAO.

### **Project Background**

The European Council at its December 1999 meeting in Helsinki endorsed Turkey as a candidate state destined to join the Union. Turkey's status as a candidate country to the EU requires harmonization of legislation with the EU Acquis including in the field of Financial Control and Financial and Budgetary Provisions both as short and medium-term priority. Towords that aim, Turkey indicated in its National

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Programme for the Adoption of the Acquis (NPAA) that the process for harmonisation in Financial Control and Financial and Budgetary Provisions would start in the short term and would be finalised in the medium term.

During the accession period, public bodies and institutions of Turkey are charged with carrying out the required administrative changes and the inservice training of the personnel towards the adoption and implementation of the EU Acquis. In the light of NPAA Chapter 4.29, Financial Control and Budgetary Provisions, the Government:

- has identified the inadequacies and weaknesses in the present financial management and control systems,
- has prepared a policy paper on the issue, and
- has drafted a comprehensive Act on Public Internal Financial Control in accordance with EU practice which is mentioned in the Regular Report 2002.

The Comprehensive Law on Public Financial Management and Financial Control provides for changes to the current system in line with a number of concerns expressed in the EC's Regular Reports. The law was enacted by the Turkish Grand National Assembly (TGNA) on 24.12.2003.

Public Spending Administration Reform has been undergoing for almost ten years in Turkey and the above-mentioned Law is a part of these reform efforts. The Law introduces an expanded audit domain for TCA to cover General Government,

Central Government, social security institutions and local administrations. Complementary to the approach provided in the Law, it is necessary to review and change the TCA Law.

A draft Action Plan is being prepared by TCA, which envisages changing the legal and institutional structure of TCA. According to the draft Action Plan, regularity and performance audits would be brought in line with generally accepted international standards. TCA's institutional capacity will be strengthened to fulfil the expanded audit mandate by means of improving personnel and IT capacity. Moreover, TCA (SAYISTAY) has recently been authorized to audit the implementation of Financing Agreements of EU, which are carried out in Turkey, in accordance with internationally accepted audit standards.

The revised Turkish National Programme had required an amendment to the current Court of Accounts Law to ensure its compatibility with the EU norms and with the Public Financial Management and Control Law. Efforts to the amendment of the current TCA Law has almost been finalised in accordance with the revised Turkish National Programme and the Public Financial Management and Control Law.

### **Expected Results and Project Activities**

To achieve the overall objectives and purpose, the Project will develop all necessary activities resulting in the;

### I. Situation analysis and communications

This component is aimed at ensuring that the project has a sound foundation, by helping;

- the TCA and project partner (NAO) develop a shared understanding of needs and priorities
- internal and external stakeholders to understand what the TCA is seeking to achieve, and how changes may affect them.

### 2. Improved legal framework

This component is aimed at facilitating that the TCA's law aligns the Court's legal status, management and operations according to internationally accepted audit standards and EU practices.

### 3. Operational Capacity upgraded

This component is aimed at the TCA developing adequate procedures for adopting new approaches for financial audit, systems-based audit, performance audit, IT audit, and CAATs, for Government and EU funds. Audit approaches are aligned with relevant international auditing standards.

## 4. Management and organisational capacity strengthened and Human Resources (HR) developed

This component is aimed at adjusting the organisation structure, co-ordination, and the management of HR.

### 5. IT support improved

This component is aimed at developing a sustainable IT strategy, looking ahead to the TCA's needs over the next 5 to 7 years, linked to institutional objectives and present and future business needs, and taking into account likely future funding. It also aims to equip the TCA to maintain and develop the IT strategy in the longer term.

- Situation analysis (peer review)
- Improving the legal framework
- Provide technical audit training for the TCA's working groups
- Improve the management of HR at the corporate level
- Improve the management of information technology

### **Project Preparatory Activities**

This twinning project aims to help the TCA develop a sustainable capacity to audit to international standards. Therefore all TCA staff attach high importance to the Project.

Although the Project implementing phase hasn't started yet, some preparatory activities are funded by TCA's own budget, to provide support to the twinning project.

In this context, 25 auditors who will take part in project working groups were sent to England for three months, to improve their communication skills in English.

In addition, an intensive 9-week Course Design and Instructional Techniques Workshop (CDITW) was organized in Istanbul during the last summer. The Workshop, at in which 35 auditors from TCA participated, was delivered by Mr. Howard Richard Steel from Canada, a renowned expert in the field. During the course design and development phase, participants learnt the essentials of training needs assessment and task analysis, course design and development, and training evaluation.

This activity is planned early in the project so that the trained staff can contribute to later project training activities. The development of a 35-member cadre of training specialists will also support both the effectiveness and the future sustainability of the project, by passing on the accumulated knowledge and skills to other colleagues.

### **Conclusion**

Considering all aspects of aforamentioned knowledge, it is possible to say that TCA is in the threshold of very important changes to be a full fledged audit instution. We hope that the results of the Project will not only help to the TCA, but also will provide many supports to other institutions in Turkey and abroad.



### Audit in Uzbekistan: Formation, Development, and Perspectives

At the beginning stage of transition from command-administrative to market economy there widely existed an opinion that in the conditions of market such notion as financial control will be applied in narrow limits of only government sector. Non-governmental structures such as privatized, private and joint ventures, partnership and joint stock companies will not obey to higher organizations in accordance with consolidated policy of ruling, conduct scheduled departmental inspection.

Workers of non-governmental structures will be owners, and owners as it was expected themselves will organize effective internal control without attracting external control organs. By this, nongovernmental enterprises will not be in need of any types of financial control. Last eight years of independence and progress in market economy showed invalidity of this opinion. As it was seen in Uzbekistan and other countries to create a proprietary is possible, first of all, by privatizing governmental properties, in which logical continuation and development is organization of securities market. By having deal in securities, acquiring shares, person becomes owner who is interested in expanding his wealth. Market of securities gives a realization to all processes of reorganizations which is being implemented, formed in market economy, but market of securities can not prosper in informational vacuum, in order to believe in it ,to accept this is new thing for them, people should know everything concerning this and possess full-fledged information.

As it is known: full or true information gives power and it's absence will lead to uncontrollable situation and anarchy.

Saturability extent of information – is indicator of situation and it is one the most important factors in functioning of market in every country.

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The most essential role in composition of business information depends on economic, in which priority is given to financial accounts and indicators of financial conditions of enterprise.

Satiation of market by financial information is only possible when it is correct and reliable. Only correct information beneficial to the government in creating its socio-economic policy. And broad mass of population – in taking decisions, related with investments, acquiring shares and bonds of privatized enterprises.

Beginning with the experience of countries with well developed market economies, validity of prepared for publication for wide range of users of financial information, is reached by the way of investigating and assurance of results in investigation by independent auditor.

Independent Audit- it is for Uzbekistan type of financial control which during administrative-command system from 1917 to 1991 didn't exist, as there was no need for its existence.

Need for creating and developing independent audit appears when each citizen of country attempts to be the owner of shares of his and other enterprises, when private companies transform to public companies, there are created real estate and stock exchanges.

The owner possessing with shares of an enterprise, but not having an opportunity for directly managing of enterprise, gives this duty to the manager or board of directors. At the same time he wants to be sure that the management of enterprise is being performed quite effectively and the profit, which each owner receives his share in terms of dividends should be authentic and reliable. In order to be sure in authenticity of financial indicators in functioning of enterprise, owners invite independent outside

auditors. However, performance of auditors is no limited only by auditing the authenticity of indicators in financial accounts.

First mention on attracting to work "particularized consulting (auditing) organizations" took place in our official documents on June 26 in 1991 when Cabinet of Ministers of the Republic of Uzbekistan approved "Position on estimating the value of properties of government enterprises and organizations". But at that time here in Uzbekistan, there were not any native independent auditors and basis for training auditors.

For this reason in order to define the authenticity of estimation of privatized enterprises' properties, at that time there were invited experts of international auditing-consulting firm "Price Waterhouse".

Foresight of wise economic policy of our country's government was seen in that, before approving decrees "On joint stock companies and protection of stockholder's rights", "On securities and stock exchange", our government already knew that these decrees will not work, if there were not created net of private independent auditing firms.

At the end of 1991 there was organized special commission of Supreme Soviet, which attracted to work outstanding scientists and experts-accountants, auditors, economists for the purpose of working out

Supreme Soviet of the Republic of Uzbekistan on December 9 in 1992 approved decree "On auditor's activity", and Uzbekistan first among CIS countries started to create all opportunities for formation and development of audit within the country. In the anniversary of eight year independence and seven years of this decree we have the following results: In the Republic there were organized 4 Centers of training auditors, were trained about 4500 auditors,

decree's project "On auditor's activity".

were registered 415 independent auditing firms. And these firms are not only in the capital of the country but also in other regions of the country. As a result, now there are no problems concerning with attraction of auditors on the basis of agreement for auditing of financial accounts, for offering consulting services for preparing accounting and tax accounts, liquidity balance in case of privatization or bankruptcy of enterprise, preparing accounting for production based enterprises.

At the present time, there appeared a need for going over again some clauses of decree of the Republic of Uzbekistan "On auditor's activities" and putting it in order according to international standard.

# SUSPECTED FRAUD/MISAPPROPRIATIONPOINTS TO BE OBSERVED

A lot has been written and spoken, seminars and workshops have been organized, for debating the accounting and auditing techniques. Much more has been discussed and this has, no doubt, led to provide opportunities to the Pakistan Audit Departments' personnel to learn and make their performance from better to best, and much remains in the pipe line to be discussed.

This paper deals with suspected fraud in auditees' entity. This paper presents the key concepts of issues and practices in the existing areas. It is hoped that the contents of this paper will provide the necessary frame work for an auditor in relation to his/her duties and perspective enabling him/her to focus attention of audit function on a specific point.

The primary function of audit is to verify the accuracy and completeness of accounts so as to ensure that all revenue and receipts have been brought to account under proper head and that all expenditure and disbursements have been authorized, vouched and correctly classified. The auditor is also required to see that the final account represents a complete and true statement of the financial transactions. This object can be achieved through an independent scrutiny. Accordingly the statutory provisions pertaining to the function of Auditor General of Pakistan fully recognize his independence in the sphere of duty.

An auditor has to pay particular attention, during the course of audit, to the following points:-

- Existence of expenditure head in the budget allocation.
- Proper sanction exists to incur expenditure.
- Expenditure under any specific head does not exceed budget limit.
- Existence of audit evidence.

BY ABDUL KHALIQUE SOOMORO DIRECTOR, SAI PAKISTAN

Appropriation of allocation head between different heads.

Fraud is, generally, committed by those who handle cash and goods.

Fraud may be committed in any of the following manners:-

- By misappropriation of cash/assets.
- By misappropriation of goods.
- By manipulation of of accounts.

### FRAUD/MISAPPROPRIATION OF CASH ASSETS

Misappropriation of assets involves the theft of an entity's assets. Misappropriation of assets can be accomplished in a variety of ways (including embezzling receipts, stealing physical or intangible assets or causing an entity to pay for goods and services not received). It is often accompanied by false or misleading record or documents in order to conceal the fact that the assets are missing.

Fraud involves motivation to commit fraud and a perceived opportunity to do so. Individuals might be motivate to misappropriate assets. A perceived opportunity for fraudulent financial reporting or misappropriation of assets may exist when an individual believes internal control could be circumvented because he is in a position of trust or knowledge of specific weaknesses in the internal control system.

Cash may be misappropriated by: -

- Omitting to record receipts.
- Entering lesser amount.
- Recording fictitious payments.
- Recording higher payment than paid.

The auditor should adopt the following line of action.

- Examine internal control over cash receipts and payments and ascertain its weak point
- Check cost, carries forward, count cash in hand and cut off date.
- Obtain bank balance certificate and prepare bank reconciliation statement.
- Vouch cash book with money receipts and issued.
- Check Budget and Appropriation Register with Budget Allocation.
- Verify cash sale with original record.
- Examine payment voucher to detect forged or irregular payment and obtain duplicates of all missing vouchers.
- Observe disbursement of salaries and wages with the assistance of some one who can identify the recipient.
- Verify unclaimed salaries and other liabilities, their recording, custody and subsequent payment to the legal and right persons.
- Examine petty cash book, vouch payments,
- count cash in hand and reconcile with ledger account.
  - Pay attention if for misappropriation of cash
- teeming and lading method has been adopted.

### **MISAPPROPRIATION OF GOODS.**

An authority which is competent to incur contingent expenditure may sanction the purchase of store for

The use in the public service in accordance with the prescribed rules and orders issued by the Government from time to time on the subject.

The following points should be kept into mind while conducting the audit of stores:-

- Purchases have been in the most economical manner and in conformity with the definite requirements of the public service.
- Piecemeal purchases have not been made in order to avoid the necessity of obtaining sanction of the higher authority.
- Scales of consumption have been laid down by the competent authority.
- All stores received have been examined, counted, measured or weighed as the case may be, when delivery is taken
- A certificate to the correctness in all respect and entered in the stock register has been given by an officer authorized by competent authority.
- Issuance of material has been made against a specific indent duly signed by an officer responsible to do so.
- Acknowledgement of receipt to that effect is placed in the file and the effect has also been noted in the stock register.
- Annual physical verification has been made under the orders of the competent authority.
- A certificate of verification of stores with its results have been recorded. All the discrepancies have been brought to the notice of the competent authority and what action has been taken on the account.
- Amount of sale of stores has been accounted for in the cash book.

### **MANIPULATION OF ACCOUNTS**

Misstatements in the financial statement may arise from fraud or error. The term 'error'refers to an unintentional misstatements in financial statements including the omission of an amount or a disclosure such as: -

- A mistake in gathering or processing data from which financial statements are prepared.
- An incorrect accounting estimate arising from oversight or misinterpretation of facts.
- The term 'fraud' refers to an intentional act committed by one or more individual among management those charged with governance, employees or third parties.

In order to examine the manipulation of accounts, see the responsibilities of those charged with governance of an entity due to oversight of management, the integrity of the entity's accounting and financial reporting systems are not enweakened and that the appropriate financial controls are in existence including monitoring risk of financial control and compliance with law.

# System Controls Evaluation in IT Audit

By AHMED TAIMOOR NASIR BSc ( Engg.), MCS ASSISTANT MILITARY ACCOUNT GENERAL, PAKISTAN.

### Introduction

Internal Controls or System Controls are part of a protective mechanism deliberately placed within a system or process to protect against fraud and manipulation. They are designed to prevent irregularities. Through Controls evaluation of a system, it is assessed whether any Internal Controls are available in the system under Audit and if so, how vulnerable are these to manipulation. This assessment is very significant for any audit assignment and forms the basis of the audit strategy to be adopted, whether for IT Audit or traditional one. Adequate Controls ensure that transactions are carried out only with appropriate authorization and are recorded and classified correctly. Elaborate segregation of responsibilities, defined job descriptions, restricted access to records, data and computers depict a better state of Controls in an organization.

Over the years, due to implementation of more and more CIS / AIS (Accounting Information Systems), IT Audit has become more mature, reliable and advanced. Therefore to undertake Audit of such organizations, an Integrated audit approach is required with high technical (IT) as well as traditional audit expertise. For such modern systems, Technical aspects of the application, built-in controls and the business processes are needed to be understood for an economical, efficient and effective audit. The strategy may include the audit of unit activities, application systems and controls. The Control assessment forms a fundamental component of this process and by employing IT-Audit techniques, IT related control weaknesses are identified and evaluated.

### **System Controls**

The controls can broadly be visualized as some external and internal mechanisms in a system to avoid deviation from the expected / desired course of action or result. These may further be classified as:

- (a) Management and independent controls are direct controls which are performed by persons independent of the processing thereof, to detect errors or irregularities which may have occurred before or during processing and may not have been prevented by processing controls. They typically comprise manual reviews, analysis, comparisons and reconciliation or validations.
- (b) **General Controls** support the effectiveness of management and independent controls as well as processing controls. Their operation is often essential for the effectiveness of application controls and they typically comprise:
- Controls over planning, policies, procedures and standards pertaining to the Computer Information Systems (CIS) environment.
- Controls over physical, logical and network security.
- Controls over program change controls, for both maintenance of existing systems and development of new systems.
- Controls over operational procedures, backups and business continuity.
- Controls over database management.
- Controls over the CIS organization.

(c) **Access Controls** are a part of General Controls , but are more related to system or application controls:

Systems development controls

- Proper authorization for systems changes
- Proper planning testing, conversion and
- documentation for new systems

Access controls

- Access to systems documentation
- Access to data files and programs
- Access to hardware
- Telecommunication controls

(D) **Application Controls** can be manual or computerised and can be applied either to individual transactions or similar batches designed to prevent or detect errors or irregularities occurring in the early stages of processing or immediately thereafter. These include controls over processing and computer data designed to provide reasonable assurance that:

data is entered correctly;

System Control

- transactions are properly processed by the computer;
- transactions are not lost, added, duplicated or improperly changed;
- processing errors are identified and corrected on a timely basis; and

Access Control

■ transactions are not reported incorrectly.

expected losses from unlawful events that can occur in a system.

The overall purpose of these controls is to reduce

The auditor's duty is to determine whether controls are in position and working effectively to prevent the illegal events that might happen within a system. The malfunctioning of these controls will result in unacceptable losses and unreliable system that provide the auditor with unnecessary data and information.

### **Controls Evaluation**

Controls evaluation is the most essential part of an IT Audit assignment and all the subsequent sampling and analysis is based on it. To asses controls within a system application, each of its distinct module is evaluated i.e.:

INPUT MODULE :: Input Controls

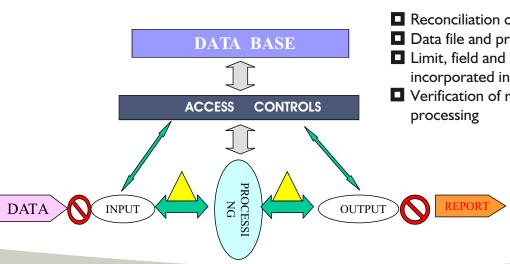
- Authorisation of transactions
- Conversion of data to include sequence checks, record counts, batch and/or hash totals, computer editing and verification procedures
- Re-submission of incorrect data

**OUTPUT MODULE :: Output Controls** 

- Output reconciled with input
- Output restricted to authorised usersprocessing

PROCESSING MODULE :: Processing Controls

- Reconciliation of control totals and input totals
- Data file and program identification
- Limit, field and reasonableness checks incorporated into application processing
- Verification of run-to-run totals during processing



Data Flow

Adequate procedures are then conducted to asses whether the controls are in place and it is so, what is the level of effectiveness. The specific areas to be selected and evaluated depends upon the creativity and system awareness of the auditor.

Some procedural aspects related to an IT-System (AIS / CIS) are presented here as example which must be looked-into for making a system assessment;

### **System Design:**

- Independent and concurrent review of systems development process
- Systems review of development policies, authorization, and approval procedure
- Programming evaluation and documentation standards, and program testing and test approval procedures
- User interviews about involvement in systems design and implementation
- Reviewing minutes of development team meetings for evidence of involvement
- Verifying management and user sign-off at milestone points in the development process
- Reviewing test specifications, data, and results
- Reviewing program modification policies, standards, and procedures
- Reviewing documentation standards for program modification, program modification testing, and test approval procedures
- Discussing systems development procedures with management

### **Process Controls:**

- Failure to detect incorrect, incomplete or unauthorized input data
- Failure to properly correct errors flagged by data editing procedures
- Introduction of errors into files or databases during updating
- Computer data editing routines

- Proper use of internal and external file labels
- Effective error correction procedures
- File change listings and summaries prepared for user department review
- Review administrative documentation for processing control standards
- Observe computer operations and data control functions
- Review copies of error listings, batch total reports and file change list
- Evaluation of adequacy and completeness of data editing controls
- Verify adherence to processing control procedure by observing computer operations and the data control function
- Trace disposition of a sample of errors flagged by data edit routines to ensure proper handling
- Monitor on-line processing systems using concurrent audit techniques

### **Source Data Controls:**

- User authorization of source data input
- Effective handling of source data input by data control personnel
- Logging of the receipt, movement, and disposition of source data input
- Use of turnaround documents
- Reviewing documentation for source data control standards
- Document accounting source data controls using an input control matrix
- Reviewing accounting systems documentation to identify source data content and processing steps and specific source data controls used.

### **Database Files Controls:**

- Unauthorized modification or disclosure of stored data
- Destruction of stored data due to inadvertent errors, hardware or software malfunctions and intentional acts of sabotage or vandalism
- Concurrent update controls
- Proper use of file labels and write-control mechanisms
- Use of virus protection software
- Examination of disaster recovery plan
- Discussion of data file control procedures with systems managers and operators
- Review of logical access policies and procedures
- Review of documentation for functions of file library operation
- Observing and evaluating file library operations
- Review records of password assignment and modification
- Observation of the preparation of off-site storage back-up facilities
- Reconciliation of master file totals with separately maintained control totals

The evaluation of controls makes it very clear that how much the auditor should consider the impact of computer processing of significant accounting information on audit design.

### The Audit Strategy

Auditing requires a step-by-step approach characterized by careful planning and judicious selection and execution of appropriate techniques. Auditing involves the collection, review, and documentation of audit evidence.

Once the reliability and accuracy of a system application is established, reports generated and data extracted from the CIS / AIS can be relied upon for conducting financial, Compliance or performance auditing.

Whatever is the type of processing, audit objectives and control objectives/ concepts remain unchanged. Employment of different audit procedures may arise in manual versus CIS processing.

For a CIS Audit team it is essential that every audit staff member should have a basic understanding of CIS principles. The auditors (internal and external) should become involved in the initial design and testing to ensure sound controls and that the systems are auditable. The auditors should see themselves as mirror images of system analysts (just as traditional auditor was the mirror image of the accountant).

The Audit manager after evaluation of the IS / EDP controls may choose one of the following CIS Audit approaches;

■ Auditing Around the Computer. It is the concept of manually re-performing or re-processing functions carried out by CIS programs. It is only feasible when all output is directly related to corresponding input, and calculations, summaries are printed out with supporting detail, and accepted and rejected data reports are prepared, and standing data permanently held in master files is printed out each time it is used. It is specifically recommended for CIS environments where controls are weak. Some Auditing Standards do require the auditor to rely on computer-based controls (i.e., controls that exist in machine readable format only; generally referred to as "programmed procedures") in an EDP environment. The testing of programmed procedures requires audit techniques such as the use of test data, parallel simulation, or an Integrated Test Facility (ITF).

Because these procedures require a degree of computer skills that many auditors do not feel they possess, auditors often choose not to perform them and therefore do not consider these controls in designing the audit. In such a situation the auditor chooses to "audit around the computer" and increase the amount of substantive testing and/or otherwise change the timing and/or nature of substantive procedures.

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- Auditing Through the Computer: This technique is adopted when the reliability of a CIS / AIS has been satisfactorily assessed by the auditor and system controls are in place to accept and process input into a complete and accurate output. The strong CIS environmental / system controls and integration of accounting controls within the system procedures using computer's decision making capabilities makes it favourable to use this technique. This is usually employed on real time systems with strong database and a higher degree of IT expertise.
- Computer Assisted Audit Techniques(CAAT): In CAAT various computer based routines are used to test Application controls. In this Software testing techniques are used like:
  - Test Data: A data set is input into the system application whose result is known. The output generated is then compared with desired results.
  - Parallel Simulation
  - Tagging and tracing of data at predetermined milestones or checkpoints.
  - Using embedded software within the application.
  - Designing and running test cases using testing software.

Apart from above Generalised Audit Package solutions are available. In environments where extensive high-tech software CIS systems have been deployed, Custom Tailored auditing solution software have been developed which monitor activities within the prescribed benchmarks. During audit these audit software packages search and retrieve data, select samples, apply calculation functions, compare files and results and generate reports.

#### Conclusion

IT Audit is a technological improvement upon traditional audit, similar to Computer based Accounting systems are an improvement over historic manual ledgers and bookkeeping. The basic theme and sequence of an audit assignment remains almost the same except for a higher degree of IT expertise

of an audit assignment remains almost the same except for a higher degree of IT expertise required in an audit team, naturally to audit computer based systems. almost the same except for a higher degree of IT expertise

After evaluating a CIS / AIS system for controls and performance during the first audit, relatively less IT man-hours will be required for subsequent audits of the same system. A higher IT Man-hour input in such a maiden audit will be a sound investment of resource, which would ensure efficient results subsequently. Every CIS / AIS must be evaluated for control effectiveness and benchmarked for performance soon after its launching / deployment.

It will be fair to conclude here that every CIS/AIS or MIS (Management Information System) must be tested before its implementation by the certified Software System Testers and must carry Third Party Software Validation. This will enhance system reliability and minimize system failure chances. The higher Validation / Testing cost will be off set by lesser future audit costs and least breakdown and error rectification costs.

The Auditors of an Accounting / Information system proposed to be implemented as CIS / AIS must be recognized as Stake Holders and should be consulted for system design, so that effective controls and critical exception checks could be put in place for future security of the system.

