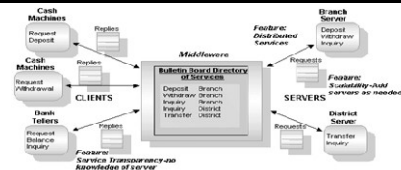# Risk Based Audit in CBS Environment

WIRC Seminar on Statutory Audit of Bank Branches

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Banks and CBS

- Computerisation in banks has come a long way from manual processes:
  - Ledger posting machines
  - Dispersed desk top computing
    - Supported by end user applications
  - Softwares for banking operations at branches
    - Client – server technologies
    - Exception reporting
  - Centralised banking solutions or Core Banking Solutions

  Centralized **O**nline **R**eal-time **E**nvironment"

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CBS characteristics

- Server at a central location
- Connectivity to all banking locations
  - Branches
  - ATMs
  - Internet
  - Mobile
- Transaction recorded onto the central server
- Report generations controlled centrally
- Lot of peripheral systems integrated with CBS

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Controls in CBS

- Understand how the CBS is implemented
- Understand what controls are in place to ensure that the CIA principle works unfettered in the bank
  - *Confidentiality*
  - *Integrity*
  - *Availability*

To use these controls for audit objectives, we have to rely on our "Audit Smartness" and not be bogged down that we may not be "IT Smart"

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Our basic material for evaluating computerized environment

- SA 315 → Identifying and assessing Risks of Material Misstatement through understanding the Entity and its environment
  - Controls over IT Systems are effective if they maintain the integrity of information and security of data
- Guidance Note on Audit of Banks
  - General guidance on controls in a computerised environment
  - CBS specific guidance

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Our basic material for evaluating computerized environment…

- Also peruse the Guidance Note on Audit of Internal Financial Controls over Financial Reporting
  - Though not applicable to audits of nationalised banks that are not companies, the guidance note has good reference to IT controls in an automated processing environment

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Our basic material for evaluating computerized environment…

- Risk Assessment & Responses to Assessed Risks Standards on Auditing
  - SA 300 – Planning
  - SA 315 – Identification & Assessment of Risks of Material Misstatements Through Understanding an Entity & its Environment
  - SA 320 – Materiality in Planning and Performing an Audit
  - SA 330 – The Auditors Responses to Assessed Risks
  - SA 402 – Audit Consideration Relating to an Entity Using a Service Organisation
  - SA 450 – Evaluation of Misstatements Identified During an Audit

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First steps at the branch

- Take two interviews:-
  - Systems in charge / System Executive (SE)
  - Branch Manager
- Obtain an overview of the systems
  - Software
  - Hardware
  - Network configurations
- Ask the SE of his perception of CIA principle in the branch
- Take the SE's views on the LFAR questions

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First steps at the branch…

- Take written and oral representations that:-
  - System is implemented as designed
  - No modifications are made to the system at / from the level of the branch
  - All problems faced during implementation / upgradation / migration & thereafter are resolved
  - Problems faced have not affected the confidentiality, integrity & availability of data

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First steps at the branch…

- Now meet the branch manager & take his view on information gathered from the SE
- Specifically inquire of his methodologies about
  - EOD / SOD process
  - Sign off on MIS & exception reports
  - Any additional responsibility due to implementation of CBS & whether it affects the branch banking business

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Some key audit processes

- Access Control Matrix
  - Peruse and inquire whether it matches with users at the branch
    - Satisfy yourself that users in the Branch are aware of the importance of access controls
  - User management processes
    - Creation / Modification / Deletion / Restoration
  - Inquire whether logs of unauthorised access are available at branch / data centre
    - If so, review management action

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Some key audit processes...

- Transaction logs
  - Serial control over all transactions without manual intervention
  - Peruse logs of "heavy days"
- Reports from CBS
  - For business / monitoring / audit & inspection / regulatory reporting
  - For exceptional transactions
  - Distribution → electronic / manual
  - Sign-offs on the reports

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Some key audit processes…

- Access to CBS
  - Normally a read-alone access is given.
  - In case it is not given, request for access with aid of a valid user of the branch.
  - Please mention the type of access granted in the LFAR
  - Even with a read-alone access help of a valid user may be necessary for due audit completion
  - Query the database

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Some key audit processes…

- Queries on the database
  - Use the help and expertise of the SE to run queries & generate information needed for the audit
  - The SE will seek help of the Data Centre in case required
  - Analyse data collected as per specific query (i.e. purpose for which the details / data have been extracted)
  - Data collected along with Auditors' remarks should be stored as Audit Working Paper

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Controls in CBS

- Various types of Controls are embedded at various levels in CBS; two main categories of controls:-
    - Application Controls
    - IT Administrative Controls & Security

Controls in CBS – Application Controls

- Access Controls in Software Areas as per delegated powers to Employees / Users
- Data Input (Validation) Controls
- Product Level Controls
    - Prefixed Financial Parameters (Like Interest Rate, Penal Interest Rates)
    - Fixed Tenure (Pre-defined terms Fixed Deposits / Service Types (Principal and Interest Repayment Type and Periodicity)
    - Tax and Regulatory compliances
- Authorization of a transaction as per delegated authority
- Controlled Error Handling through Warning, Exception and Error Reporting

Controls in CBS – IT Admin. Control & Security

- Controls are associated with processing activity
- It allows user to use the Software as per Access Rights Table
- Confirmation / Prior Authorisation for any outside Software Installations.
- To ensure encryption of Data
- To ensure no changes are effected in IT Hardware
- Logical Access Controls
  - Access to System / Menu as per the Category and Type of Branch / SOL
  - Single Sign-on for all the applications
  - Maker & Checker Control
- Security policies for all IT Assets (incl. Hardware, Softwares, Databases etc.)

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Audit Processes & Use of Technologies

- <u>Be aware of vulnerabilities that reside in usage of CBS:</u>
  - Processing is completely automated. Hence, a manual error in Master Data updation has a huge effect on all the transactions of the same kind.
  - Processing is not visible
  - Lack of discipline in Access Control
  - Lack of Training for New software environment
  - Audit Trail may not be visible for all the type of transactions

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Audit Processes & Use of Technologies...

- **Which Techniques / Technologies to be used?**

    - CAAT – Computer Assisted Audit Techniques
        - Not every auditor has such a tool
        - Not every bank permits usage of such a tool on its systems

    - General Audit Softwares / Spreadsheets

    - Query Languages like SQL

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Querying the database

- Query Languages like SQL can be used to carve out data as per criteria from Database Servers.

    - However, it requires expertise and in-depth knowledge of System and Software.

    - Requires permission to Access the Database to apply the procedures.

    - Analyse data collected as per specific query (i.e. purpose for which the details / data have been extracted)

    - Data collected along with Auditors' remarks should be stored as Audit Working Paper

- If the Auditors are not having direct access to Database Server, a request to Data center officials can be placed for requirement of Data and Parameters.

- Based on the parameters and Field requirements, Data Center can generate the reports to be shared with Auditors for their further processing.

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Income – interest

- Interest rate parameters are controlled centrally

- Obtain list of transactions where interest rate has been entered by branch management

- Ensure that such entry and authorization is as per Access Control Rules

- Review process of interest rate modifications in similar manner

- Test check a few interest calculations

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Income – charges

- As in case of interest rate, parameters for other charges are controlled centrally
- Ensure that the software relates the transaction with the income to be applied
  - Bank Guarantee / LC and its Commission / Charges
  - ATM / Credit Card charges
  - Charges for miscellaneous transactions
    - Number of debits
    - Note counting
- Review transactions where branch has an authority to deviate from the set parameters
- Test check a few transactions

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Advances

- Verify data entry of new sanctions into the CBS
  - Rate of Interest
  - Date of sanction
- Inquire whether loan documentation is controlled through the system
  - If so, whether system prompts for the same
- Whether system prompts for renewals

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NPAs

- Inquire whether system identifies NPAs and reverses income
- Check paramterisation of system to identify NPAs:-
  - Defaults in excess of 90 days principal repayment or continuously overdrawn
  - Interest not fully serviced
  - Sanction limit expired and account not renewed
  - Packing credits defaults – running account
- Certain accounts not NPAs
  - Account with credit balance or not outstanding amounts
  - Staff schemes
  - Accounts under Central Government Guarantee

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NPAs…

- Potential NPA → Audit list of defaults nearing but not exceeding 90 days (SMA 2)
- Peruse list of customers / accounts with high credits within last week / fortnight of March
- Identify whether there are heavy withdrawals in first week / fortnight of April of customers / accounts in this list
- One customer – one classification
- Upgradation of account
  - Balance within limits
  - No overdues
  - Credits available for servicing interest

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Deposits & interest thereon

- Ensure proper parameterization of deposit schemes and interest thereon
- Trace a sample of transactions
- Verify calculations of interest expenditure in few cases
- Review process of pre-mandated transactions and whether they have happened as per the mandate
  - Auto sweep account
  - Cumulative deposits
  - Recurring deposits

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Office accounts

- Review various office accounts
  - Suspense
  - Sundry Deposits
  - Inter branch (Inter Sol)
  - ATM Suspense
  - Credit Cards
  - Cash Management
- Audit list of outstanding items
- Inquire whether frauds have occurred using these office accounts

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Retail banking & payment systems

- Review process of mobile banking
- Payment gateways
- Aadhaar based payments
- Internet banking
- Special reports generated for clients who have large retail customers
  - Insurance companies / e- commerce / payment wallets

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2/3/2016

Audit Processes & Use of Technologies…

- **General Data Collection:**

  - Physical Copy of Papers or related details / data should be verified and crosschecked from the details so extracted

  - The data serve the purpose of Audit Evidence and nature of Audit Process carried out

  - The data so collected should be part of working papers

Financials review

- Process of generating financial statements

  - Any manual intervention areas to be focused upon

  - MOCs for year under audit

- Transfer of opening balances

  - Proper accounting of MOCs of previous year

- Reconciling EOD reports with Trial Balance

Audit conclusion

- Document findings & conclusions
- Discuss them
- Take written and oral representations
- Formulate Audit Opinion

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LFAR 2003

- For each of the six questions one needs to:-
  - Inquire about Bank's policy
  - Level of understanding of the policy and implication if it is not adhered to
  - Evidence of compliance with that policy at branch
  - Peruse action taken on Concurrent & System audit findings & management action thereon

Area is too wide to be covered as part of Branch Statutory Audit if it is to be done diligently

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Thank you

Views expressed today are mine and not of
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