



# Emerging Technology Changes

CAFRAL Non-Executive Directors Conference

# Discussion Topics

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- *Technology Emergence in Indian Banks – A Overview*
- *Focus on Core Banking*
- *Challenges & Associated Risks*
- *IT Implementation and Management*
- *Case for Change*
- *Technology – Opportunities & Challenges Ahead*

# Technology Emergence in Indian Banks

*In a blind automation of existing procedures following RBI guidelines, a golden opportunity of process re-engineering was missed*

## Time-period

## Technology Introductions

## Challenges

1984 - 1989

- First blueprint on computerization & mechanization in banks by Rangrajan committee
- Introduction of Automatic Ledger Posting Machines (front office) or Electronic Accounting Machines (back office)
- Many banks opted only for front office automation with the exception of SBI

1990 - 1994

- Development of Total Branch Automation (TBA)
- Automated front-end and back-end operations of a particular branch with it's own database

1994 - 1998

- Introduction of Electronic Funds Transfer and BANKNET communications by Saraf Committee
- Availability of good network structure, single centralized database for the banks

1998 - Present

- Period of implementation of Core Banking Solutions (CBS)
- ATM's, Internet Banking and RTGS of RBI

- Initiatives taken by RBI and CVC, not by banks
- Emphasis more on compliance than business agility
- Resulted in better book-keeping and housekeeping
- Focused on operations and tasks of a bank, it failed to take into the account the implications of change on the people

# Focus on Core Banking

- **Core banking** refers to services provided by a group of networked bank branches. Bank customers may access their funds and other simple transactions from any of the member branch office
  - Software applications record transactions, maintain customer information, calculate interest on loans and deposits etc.
  - Data stored in backend databases in digital form, instead of ledgers
  - Branches of a bank interconnected through the internet or telephone lines to form a core banking network
  - New functionalities can be easily added to the system, e.g. - Electronic funds transfer between banks, online trading in the stock markets etc.
- Core banking was expected as a panacea, expectation was overtly ambitious
- Focus on Core Banking led to misses on analytics, intelligence, risk mitigation, compliance

# Challenges & Associated Risks

*Many risks and challenges associated with technology implementation are less well known and are often ignored. Technology is not an end in itself, it is at most a facilitator, to be used optimally and judiciously*

## Risks

1. Exposed the full balance sheets and network of bank to risks
2. Discontinuity or breakdown of core functions
3. Software and hardware glitches in the technology implementation, e.g. Phishing, SQL Injection, IP Spoofing, etc.
4. Failures and frauds that automation could potentially spawn

**Technology  
considered  
as a “Black  
Box”**

## Challenges

1. Lack of insights on IT implementation; shortage of skilled personnel
2. Lack of domain and unthinkable dependence of systems
3. Deficiencies in the internal control processes
4. Inadequate appreciation of risks

# IT Implementation & Management

*A proper understanding of IT requirements along with project governance is required for an efficient implementation*

- IT Strategy alignment with the business alignment
  - Foster a culture where business verticals are ready to shift and accept changes brought in by new IT systems
  - Periodic review of IT strategic goals
- Project Costs & Physical Infrastructure
  - Build v/s Buy?
  - Current IT set up not only capable of handling the current level of operations but is also well equipped to ensure a similar level of service for the future growth
- Backup & Disaster Management Plan
  - Centralized backup solution for the back-up of critical applications, replication of data on a periodic or a real-time basis, DR mock drill once in a quarter for all critical applications
- Measurement of IT Performance
  - Execution of IT budgets, project implementation, capacity planning and expansions
  - Monthly reports to highlight cost overruns, audit findings, significant outages & problem resolution

# Case for Change

## ***Current State***

- 75% spend towards management of existing systems
- Focus on managing client & customer accounts; operational CRM
- Integration between applications either file-based or application-to-application ( point-to-point)

## ***Need for Change***

- Build systems to complement CBS to bridge the functionality gaps
- BI to provide analytical management to BU's for NPA's, Cross-sell, Up-sell, campaign management; analytical CRM
- Consolidation and integration of IT platforms across all functionalities
- Efficient data warehousing for humungous data spewed by CBS systems

## ***IT Vision for Banking***

- Enhanced use of IT in areas like MIS, regulatory reporting, overall risk management, customer relationship management
- Enhanced customer service through mobile & electronic payments, biometric cards, financial inclusion etc.

# Technology – Opportunities & Challenges Ahead

*The future of Indian banking holds a lot of opportunities as well as challenges ahead*

