

# CORE BANKING SYSTEM



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## **Preface**

The financial services and banking industry worldwide is continuously transforming to cope up with evolving customer preferences, shifting competition patterns, conform to the complex regulatory needs and to embrace emerging technologies. With change coming this rapidly, banks require technologically advanced systems to transform their business models to stay a step ahead of the competition. However, most banks are burdened by obsolete systems and are also faced with the need to fundamentally transform their aging IT systems. At a time when banks are adopting newer business models, they often face challenge in choosing a modern and agile system that rightly aligns their core needs. This is where core banking systems come into the scene to bestow banks the much needed business innovation. Core Banking Systems (CBS) are poised to change the way banks work universally, with strategic features to respond, transform, and to adapt business innovation at incredible speed.

We Emsyne Technologies backed by experience of more than 24 years and possessing strong domain knowledge in the areas of banking and allied financial services developed a scalable integrated core banking system, which is designed to address the end-to-end business processes of banks and non-banking sectors.

The document details the core features incorporated in Emsyne's core banking system eMBank.

#### eMBank – The Complete Banking Software

The Banking honchos have realized that advanced technology is critical for embracing new world order and to accelerate growth in organization. Besides, in a fast paced global world banks can no longer operate in a reactive mode, affording the lengthy deployments and less flexibility offered by legacy systems which they depended on. So the need for transformation from obsolete systems to state-of-the-art one remains as compelling as ever, changing to a technologically advanced system that ensures sustainable growth model. A jerk free transformation to a sustainable solution at the core will prove decisive for banks to gear themselves business innovative and future-adaptive. **EMBank** is envisaged to equip banks to transform progressively to their business models by embedding business agility and enabling new business capabilities. eMBank helps:

- → Respond strategically to today's business challenges.
- → Transform the financial organization to equip readily respond to change.
- → Enable business innovation and new capabilities.
- Curtail total technology cost spending.

# **Product Overview (eMBank)**

**eMBank** is a truly agile global core banking platform designed to help banks and financial players to transform and upgrade their business models in an integrated fashion. Clubbed with multiple delivery channels and componentized add-on modules, EMBank offers the most advanced system that matches the needs of all players in the financial services marketplace. An innovative service model, EMBank core banking software uses layered architecture to create a holistic, integrating hardware, network, software and services to cater the multifaceted needs of banking and non-banking financial segments. The system is highly modular, scalable, and configurable solution giving banking and financial entities the benefits of increased efficiencies; faster go to market, predictability of technology and better business results.

eMBank is suitable for all type of banks - Government Bank, Private Bank, Commercial Bank, Investment Bank, Community Bank, Service Bank, Central Bank of a Country and credit unions, micro finance and lending institutions.

#### eMBank features cover:

- → Agile, Componentized Scalable Platform.
- → Enabling business agility and business innovation.

- → Great flexibility, easiest to handle and highly parameterized.
- → Configurable process features and product definitions to fasten business capabilities.
- → Intuitive navigation with a logical flow and responsive throughput.
- → Streamlines, automates simplifies processes at the core banking, mobile banking, and e-banking levels.
- → Easy-to-configure modules ensuring seamless transformation to business processes.
- → Sophisticated and easier integration capabilities with third-party systems.
- → Customer-centric and allowing for future growth.
- → Secure architectural frame with flawless maker-checker flow and single window concept.
- → Multi-level risk mitigating mechanisms.

# emBank - Core Components

EMBank core components comprise broadly:

#### Module #

## **Administrative Console**

- → Audit Logs
- → Admin logs
- → Super user logs
- → End of Day and Begin of Day process
- → EOD from unit level and HO level
- → EOD Rule Setting
- → End of Month process
- → EOY Process Settings
- → Password Expiry
- → Contact term expiry
- → Provides complete user management feature
- → Allows the correct level of user to add new users and remove users.
- → Facility to add users to designated business unit/branch/processes/roles.
- → Allows definition/modification of the approval limits, branches and organization structure which could be centralized or decentralized.
- → System should be configurable to have more user types/ levels to accommodate process changes/ audit or any other functional/ reporting requirement.
- → User Creation and Deletion
- → User Roles and Access Rights
- → User Groups Management
- → Location based allocation rules

- → Reallocate/Reassign
- → Allows the correct level of user to add new users and remove users.
- → Allows the correct level of user to modify the access a user requires.
- → User Block/Release
- → Assign Special Privileges
- → Switch User (Multiple Roles)
- → Force Logout
- → Change of Access (User Groups)
  - Access for certain hours
  - Acting access
  - Change discretion amount (Role Based)
- → Password reset- Password auto generated
- → Change password in 1st login
- → Password Lock/Unlock
- → Password Rule Setting and Expiry Management
- → Data backup (scheduler)
- → Change of system time (Global standards followed)
- → Security Levels Matrix Structure at teller and transaction levels
- → Ensures screen level security in all screens, depending on security group/ level of each user.
- → Workflow management both for reporting as well as to have a comment & work log of the complete user trail.

# **System Configurations & Settings**

- → Business Rule Settings
- → Various Transactions limit setting
- → Interface to external/internal systems
- → Master Value Definitions (Various components)
- → Currency Management (Local Currency Setting)
- → Country Management
- → District/State Management
- → Organization Structure
- → Unit/Branch Management
- → Department and Sub Divisions Management
- → Allocation of Responsibilities
- → Facility to add users to designated business unit/branch/processes/roles.
- → Allow definition/modification of the approval limits, branches and organization structure which could be centralized or decentralized.
- → Configurable workflow/ parameterized depending on channel, product, scheme, source, and any other available fields.
- → Allocate particular application to specific approvers.

- → Restrict access to data based on User/Role/combination of both in the organization
- → Multiple to & fro movement of workflow
- → Fast track processing features
- → Queuing system that should allocate based on pre-set logic.
- → Single approver or multiple approvers.
- → Sequential and parallel approvals.
- → Provision of maker checker facility for different activities(data entry, documents, approval based on risk segment)
- → Provides user definable rules for scoring, de- dupe, eligibility, customer exceptions, workflow movement, etc. using rule builder.
- → Simultaneous workflows
- → Configurable to have more user types/ levels to accommodate process changes/ audit or any other functional/ reporting requirement.
- → Rule based credit evaluation to provide internal credit checking
- → Credit rating, credit scoring, risk assessment
- → Execution of power delegated and compliance check
- → Restructured account Module along with Configurable business rules as per policy and approvals
- → Entity Management (Supplier/Partners/Associates/Sourcing Channel)
- → Ability to define various masters Business Partners, Deviation reason master, Delegation level master (Value), Product master (including pricing etc.), Customer master (With ID details etc.), Policy criteria master, Employment Master, Company master, Collateral detail master, etc.
- → Other Masters as relevant for the software/as required by Bank/Financial Entity
- → 'Master Data Management' of various heads such as type of loan, geography, business unit etc. and also version control in key masters.
- → Facility to configure templates in the system like the Call Report, Offer letter, SMS and email alert, etc. can be configured at the masters level in the system.
- → Holiday Management
- → Working days & Hours Management
- → News/Messages/Announcement (Unit-wise, state-wise, District-wise)
- → Services and Products Configuration
- → Product/Scheme Definitions
- → Interest Definitions
- → Guarantees/Security/Collaterals Management
- → Ability to define & manage different origination channels
- → Controlled interface with external/internal web links/ data sources/ reference sources for data verification/ data & information feeding/ checking information.
- → Parameterization, historical data management, verifying data quality
- → Image processing abilities, including pictures taken by webcam and other similar image forms.
- → Secured access using profile definition

- → Keep history of each of parameters change.
- → Ability to create / update qualitative / quantitative details in the system through rule builder and same given to specific users as per policy.
- → Able to configure the screen based on user's hierarchy in the organization.
- → Restricted viewing or viewing of related fields only.
- → Integratable with other systems/third-party modules and derive data from it.
- → Handles substitution (Assign/Reassign) due to leave/ Emergency/Transfer/Improvement of TAT. Only Authorized Officials should be allowed for this job.
- → Full version control along with ability to keep old versions retrievable in case of need.

# **Fees & Charges**

- → Fees and Charges Defining
- → Tax Definitions
- → Cess Definitions
- → Facility to define different fees, charges and taxes as per guidelines
- → Notice/letters/SMS fee defining
- → Defines fess that is to be collected for a credit product type and customer type.
- → Kept log for every charge or fee initiated
- → Collects fees and charges based on the checklist of generated
- → Collect charges partially or fully
- → Calculates Real time and batch mode
- → Automatically control, calculate, and Charge
- → Commission Slab Settings
- → Incentive Structure
- → Tax Applicability Rule Setting
- → Fees Applicability Setting
- → Charges and Fees Waiver-offs
- → Ability of the system to automatically charge all the fees and charges
- → Provision to add additional fee type
- → Facility to waive or defer a charge after the approval of competent authority.
- → Integratable with external agencies like DSA, Business Correspondents, etc. for collection of fees

#### Module #

# **Document Management**

- → Document scanning and uploads
- → Document Types (ID proofs, address proofs)
- → Define document attributes (Doc No., issuing authority, whether original required or not)
- → Document number format validation
- → Document number masking/encryption

- → Define Documents Products-wise (Eg: Savings, Term Deposit, Loans etc)
- → Define days within the document to be collected
- → Supportive Documents
- → Document Mandatory status
- → Document flow, imaging and archiving.
- → File/Document tracker
- → Forms
- → Controls
- → Access and use
- → KYC document management
- → Pre and post disbursement document collection
- → Documentation
- → Entire processes and procedures of the software
- → Document set specific to customer type can be defined
- → Workflow documentation of the Software
- → Automatic printing of all the applicable forms and documents as per requirement.
- → Integration with scanner, importing pre-scanned documents
- → Easily tracked and retrieved

# **AML/Fraud Management**

- → Fraud Detector
- → Anti-Money Laundering
- → AML Policy settings
- → Compliance in transactions with Built-in redundancies
- → Insightful Reporting System
- → Information of high risk customers
- → Due diligence/ compliance checks through interface.
- → Risk Profiling
- → Ability to classify customers
- → Risk based customer verification process
- → AML & KYC Alerts
- → Fraud detector with various scenarios (customizable, user defined dashboards to provide views on all key data with drill-down capabilities to underlying details)
- → Change Management logs
- → User Privileges Reports
- → Sectorial Analysis
- → Exposure Reports
- → Loans Approved Outside Policy
- → Prevents money laundering
- → Proactively monitor clients
- → Monitor income generation

- → Suspected customer flagging
- → AML checking at customer level and transaction levels
- → Maintenance Log by account
- → Loans initially declined, reassessed and approved
- → Regulatory reports generation
- → Regulatory submissions/Reporting

## **Customer Management**

- → Centralized customer database to interact with all modules
- → Global Customer Concept
- → Capable to integrate with CRM systems
- → Integration Capability Biometric Devices, Photo Capture
- → Duplication checking with Authorized Data Registries
- → e-KYC capability
- → Captures customer information at detailed levels
- → Specific data entry screens designed for a given customer type.
- → Additional details like financial data for a specific period captured for Specific customer.
- → Combinations like individual/ family as a borrower/ co-borrower/ guarantor or viceversa are supported.
- → De-dupe parameter specific to customer type can be defined.
- → KYC verification/Due diligence module.
- → Comply KYC Norms
- → Customer Reporting
- → Customer Prospecting
- → Levels of Customer Prospecting
- → Quick Customer Profile Access
- → Customer Visitation Report (Complete customer activity logs)
- → Customer Complaint Registration
- → Customer Income/Obligations Capturing
- → Information on inquires and account openings
- → 360 Degree View and information
- → Marketing/Follow-ups
- → Monitoring customer satisfaction levels
- → Monitoring of strategies and target analysis
- → Customer Flagging (Insurance & renewal flags as per period.)
- → Customer Based Reports and Analytics
- → Customer Types and Categories/Classifications
- → Generates output (on screen or print) based on input provided for the customers to view the eligibility for loan and other parameters
- → Generates a unique customer id & searching based on the defined parameters with full/

- partial matching
- → Full/ partial matching option to be configurable
- → Allows automatic fetching of the customer data for an existing customer
- Customer Profile
- Exposure Details
- Group Exposure if any
- Existing Facility Details
- Limit details
- Classification detail Securities etc.
- → Multiple filter search options
- → SMS and Email Alerting
- → Able to capture and validate various data for KYC norms as per central bank norms
- → Able to capture the verification of application/ documents/ KYC with digital signature
- → KYC norms checking Customer Type, Customer Profile, Customer Address, KYC documents etc.

#### **Loan Module - General Features**

- → Handles entire loan life cycle management
- → Add Borrower, Co-borrower and Guarantor details.
- → Loan and product details are added with various repayment parameters.
- → Multiple collaterals are accepted as security
- → Complete loan origination and processing system having automated process
- → Post sanctions compliance.
- → PSR (Post sanction
- $\rightarrow$  review)
- → Submission and management.
- → Quotations
- → Lead Origination
- → End-to-end workflow management.
- → Quick /Detailed data entry
- → Duplicate Check /Review
- → Support different loan products and loan types /processes.
- → Secured access using profile definition.
- → Audit trail of data/processes.
- → Facility of Application tracking across the life cycle of the loan application and across business partners
- → Provides search facilities across the screens in various modules during various stages of processing
- → Powerful structured and configurable workflow for automatic routing of application.
- → E-Signature/ Digital signature enabled that can be applied at any stage of processing.
- → Parallel processing abilities where at any point of time more than one user can view the

- case and record their queries/comments/inputs/approvals
- → Horizontal and vertical processing of a loan application/task.
- → Possibility of enhancement with add-ons like Analytics, third party users/ auditors/ valuers / advocates/ stock auditors/ due diligence agencies.
- → Ability to perform 3rd party Verifications, Valuations, Field Investigations etc.
- → Ability to define repayment variations like balloon, moratorium (skip), step-up/down in the product. Ability to change repayment options, in case of need.
- → EMI, (Equated Monthly Installments Non EMI / Principal Distributed and other methods of payment supported.
- → Interest and principal moratorium supported.
- → Fees and settlement calculations
- → Automatic picking up of charges/deviations/modifications/processing etc. for each type of loan/borrower.
- → Supports multi-level loan product hierarchy.
- → Support multi-tier rate structure like fixed/floating, indexed and mixed.
- → Support multi-tier lending power structure.
- → Supports application processing for individual (Sub lease) and non-individual customers.
- → User configurable parameters/ processes.
- → Single implementation supporting multiple portfolios
- → New product launch and defining/amending product parameters to be internally enabled for admin users
- → Configurable Risk policies
- → Credit Scoring
- → Document Process
- → Credit Bureau Check
- → Verifications Details
- → Multi-level credit evaluation
- → Decision Making
- → Disbursement
- → NPA Classification
- → Provisioning
- → Business rules engine to support different types of Application routing mechanisms
- → Seasonal cash flows/repayment defining capabilities.
- → Facilitates bulk upload of information through batch files containing the application details.
- → Capable of supporting product features Regular product parameters, Special campaign or category parameters.
- → Exceptions approved through a defined process
- → Monitoring
- → Review renewal.
- → Legal Activities
- → Application details and status enquiry should be possible.

- → Generate letters, forms, loan legal documentation & all desired template
- → Provides end-to-end subsidy/ margin money processing solution and automate the process of subsidy claim and information flow.
- → Flexibility through extensive Parameterization, Workflow and Configuration of Rules.
- → Provides comprehensive audit trail report on all activities performed on the system/proposal-including modification of data by any user including admin/system admin.
- → Handling holiday preferences if the maturity date, schedule date or revision date falls on a holiday. (Holidays local holiday or currency holiday.)
- → Holiday treatment as Payment Schedule, Revision Schedule and Maturity Date.
- → Mobile/tab solutions for field functionality, client visits, including data & document, pictures uploads or on website upload by third party agency.
- → Ability to automatically send notifications/SMS/E-mail of rejections/ approvals to appropriate personnel with predefined data and conditions.
- → Generation/ transmission of email alerts/ advices /SMS at various stages of the processing.
- → Support multiple sub-borrowers in a single loan (viz. selfhelp groups). sub-borrowers aka co-borrower
- → Generates report displaying all borrower & co-borrower for a particular account their details side by side

## Module # Loan Module

- → Provisions for giving Specific recommendations for any modifications/deviations by the user/sanctioning authority
- → Checks the application data against all the product level parameters and in case of discrepancies, the same can be modified at this stage.
- → Product validations to be checked. If violated, rectification activity performed.
- → Provision to add specific comments/litigations for a particular case/lead to be provided.
- → Option to reject the application/lead for ineligible customers with appropriate justifications by the appropriate higher authority.
- → Upload scanned images of signed Application form, KYC and statement of means.
- → Supports error / warning / action messages for doubtful / wrong entries during Data Entry, Modification and Saving Stage.
- → Able to flag and alert (pop up message) the user for missing essential information.
- → Lead and Enquiry Management
- → Lead Duplication Checking
- → Lead Qualifying
- → Customer Score Checking (External Integration)
- → Application origination
- → Check List
- → Application scoring

- → Supporting document check
- → Internal credit check
- → External credit check
- → Approval form generation
- → Application review
- → Management approval
- → Offer letter generation and printing
- → Graphical Workflow Representation
- → Letters and Forms Generation
- → Clients details
- → Project Details
- → Application Details
- → Allows the user to enter missing data/ modify the existing data and then re-submit the application for further processing
- → Approvals
- → Loan eligibility Check
- → Application form printing
- → Application can be returned to any earlier stage in the workflow
- → Management approval
- → Offer letter generation and printing
- → Graphical Workflow Representation
- → Letters and Forms Generation
- → Clients details
- → Project Details
- → Application Details
- → Approvals
- → Income and Expenditure (Profit and Loss)
- → Balance Sheet
- → Cash flow
- → Fixed assets reconciliation
- → Credit Risk Rating automated
- → Client Quality Rating
- → Calculator
- → Projection
- → Reconciliations
- → Integration with Lead Sourcing Channels
- → Loan Types/Sub Types
- → Loan Products/Schemes
- → Attach Product to Units/Branches/Districts/States
- → Interest Definitions
- → Amortization
- → Calculator for all types of loan products

- → Interest details with history
- → Purpose of Loan
- → Different types of Flags
- → Field Investigation
- → Arrears
- → Arrears analysis breakdown to components with history
- → Clients employee details and Turnover details
- → Diary Notes with automated notification
- → Interest details with history
- → Repayment
  - Drill down to days
  - Multiple sequence with frequency
  - Repayment Logs
- → Account Review
- → Capture All types of Variation
- → Deviation Capturing
- → Overdraft
- → Due details
- → Search option
- → Loan Settlement
- → Remaining term to capture from further loan as well
- → Refinance
- → Loan Restructuring
- → Account Movement
- → Statement printing in bulk (Normal & interest and fees frozen accounts)
- → Reminder notices (Repayment due, Interest Due, Arrears, demand & seizure)
- → Validations (pop ups for incorrect entry)
- → Credit Risk Rating Automation
- → Portfolio transfer
- → Provision Automated with manual update(Override)
- → Disbursements (Differentiate new loan and further loan)
- → Valuations (Internal/External)
- → Default Rate
- → History of Variation (any changes)
- → Document upload
- → CRR and CQR Automated
- → Capability to view all previous notes exchanged and remarks made by other users.
- → Seek clarification on application by different user levels.
- → Ability to allocate automatically to each user based on role and also to a pool/ team so that the available users can select case to work on if needed
- → Facility to put applications on hold till pending actions is completed.
- → Security Details

- → Default information of Guarantors and 3rd party security
- → Legal Documents Automated
- → Legal Tracking System-Application to track securities request raised by branches to legal
- → Expiry notice
- $\rightarrow$  NOC
- → Automate Mortgage Details
- → Automate Letter of Charge
- → Automate Guarantee
- → Cross Guarantee Automate
- → Life Policy Details
- → Automate General Lien
- → Mortgage Debenture
- → Deed of Postponement
- → Insurance details
- → Insurance Renewal Options
- → Different type of covers and requirements, different type of policies
- → Different type of Policies
- → Automated Calculation
- → System Generated letters
- → Expiry Notice Approvals
- → Fees and Commission
- → Records Management System (Monitoring File)
- → Bulk transaction save at any point of time
- → Receipting, Payments, & journals
- → Transaction printing for customer and internal use
- → Deferred income calculation
- → General Ledger postings
- → Cashier tally report/Transaction report
- → Branch cash & Cheque analysis report
- → Cheque printing
- → Periodical Payment Loading and Fees
- → Automatic Back Reconciliation
- → Signature Card/Notice of Authority/Indemnity Form Scanning & Uploading to customers Account
- → Automate processing of Salaries & Batch Entries
- → Finance Business Requirements
  - Accounts payable
  - Financial Analysis
  - o General Ledger Reconciliation
  - Profit and Loss
  - Balance Sheet
- → Approvals

# **Enterprise Risk Management**

- → Manage Limits, Facility, O/S and Exposures
- → Automate risk management
- → Real-time risk monitoring
- → Identify risk-based process that is used to manage bank, integrate internal control principles and perform strategic planning.
- → Proper risk management business methods and processes used by bank will be integrated to manage risks and to seize opportunities related to the achievement of bank's objectives.
- → Tracks the utilization of allocated limits on a online/ real-time basis
- → These plans integrated with business strategy
- → Identify, assess, and prepare for any dangers, hazards, and other potentials for disaster, both physical and figurative will be monitored to avoid it get interfered with bank's operations and objectives.
- → Alerts and periodic assessment/ review of Limits
- → Reminders/letters send when an account within the total limit/exposure has been overdrawn or over limit
- → Reports and risk registers can be configured and generated as per need of the Bank with the data available
- → Required Limit expiry reports can be configured and generated

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#### Module #

# **Stress Testing**

- → Risk model can be integrated with core banking solution.
- → The information available in CBS (eg: Interest Rate, Account details, Interest accrued and payable, profit, cash flow, asset, liability, fund availability etc.) can be considered to generate desired analytical outputs.
- → Integratable with any risk modeling tool
- → Generate relevant analytical reports based on data

#### Module #

# **Term Deposits & Cash Management**

- → Automates deposit activities
- → Define investment products
- → Deposit/investment plans with various parameters
- → Ability to change and alter interest rate
- → Payment mode details
- → Approvals
- → Able to charge Withholding Tax on interest credited.
- → Generate Withholding Tax Certificate at calendar year end.

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- → Ability to accept changes in tax rate for Withholding Tax at any point in time.
- → Ability to do pre-mature withdrawal with the rate discounted to period deposit held with bank. Apply penalty rate.
- → Ability to pay out interest at any point in time/day
- → Charge relevant fees and charges at any time of the month.
- → Ability to generate future payout report.
- → Ability to link/lien accounts to other accounts (security undertaking with loans and advances).
- → Grace period provided to amend the account at future date with system adjustments taking place itself.
- → Ability to add and remove multiple clients.
- → Adding and deleting of signatories
- → Automatic roll over option.
- → Auto Renewal
- → Tax deductions
- → Multiple interest and principal payment option. (Cash, bank transfer, cheques)
- → Component of Islamic Banking
- → Define funds management, standing orders, periodical payments, sweeps
- → Account statement generation any defined period.
- → Features and specification to support electronic banking like Mobile Apps and Internet Banking.
- → Multiple account creation and bulk upload. For example, opening of multiple accounts like at once with relevant field and transactions through file uploads. Something similar to GL upload
- → Debtors and creditors payables Starting to end process being receiving or making payments
- → Cash flow forecast to manage liquidity
- → Plan and manage investments
- → Loan Against Deposits (LAD)
- → Redemption or renewal of loan
- → Lock/Unlock Deposit
- → Capital expenditures.
- → Budgets and forecasts
- → Budgetary approvals and appropriations
- → Separate Accounts Management
- → Transaction alerts
- → Analytical Reports

Module #	Overdraft
→ Configur	rable workflow
ightarrow Definabl	e parameters and templates.

- → Overdraft Limit is configurable and set account-wise
- → Client Creation (With mandatory fields)
- → Link client's customers
- → Facilitate deposit and withdrawal real time
- → Every transaction to have details. Cheque (#, \$\$, Bank), Cash or Both
- → Ability to changes interest rate on individual accounts.
- → Change default rate
- → Interest & Fee can be calculated and charged for balances overdrawn
- → Capable of configuring different business rules for withdrawals and lay restrictions or permissions.
- → Comprehensive data and details are captured for every transaction
- → Automated Fee and Charge calculation
- → frequency and rates are configurable
- → Interest calculation Minimum Monthly Balance/Daily Minimum Balance
- → Charge relevant fees and charges at month end.
- → Able to charge Withholding Tax on interest credited.
- → Generate Withholding Tax Certificate at calendar year end.
- → Ability to accept changes in tax rate for Withholding Tax at any point in time.
- → Ability to load overdraft limited and charge over limit fees at set intervals.
- → Flexibility of withdrawals paper and paperless.
- → Allows bulk posting of cheques at once and transaction to be updated later with individual lines.
- → Scanned copies of application forms to be uploaded on system.
- → Account to go inactive after 6 months and dormant after 12 months if no transactions from customer's end. After 10 years' account to be transferred to unclaimed monies.
- → Industry classification field.
- → Ability to add and remove multiple clients
- → Adding and deleting of signatories.
- → Define funds management; standing orders, periodical payments, sweeps.
- → Account statement generation any defined period.
- → Features and specification to support electronic banking like Mobile Apps and Internet Banking.
- → Multiple account creation and bulk upload. For example, opening of multiple accounts like at once with relevant field and transactions through file uploads. Something similar to GL uploads.
- → Tax applicability applied (Fin-year-wise)
- → Integratable with mobility channels
- → Traditional and paperless withdrawal methods

Module #	Savings Module
→ Capable of configuring different business rules for withdrawals	

- → Capable of applying transaction permissions
- → Base rate and Margin setting
- → Rate configuration with a set of parameters (Min/Max)
- → Client Creation (With mandatory fields)
- → Link clients' customers
- → Nominee management
- → Links all Accounts, Transactions with the Customer data
- → Allows client to Client / Customer to Customer linkage using multiple Relationship Types
- → Savings account opening
- → All transactions (user-initiated) happen real-time
- → Facilitate deposit and withdrawal real time
- → Every transaction to have details. Cheque (#, \$\$, Bank), Cash or Both
- → Ability to changes interest rate on individual accounts.
- → Change default rate.
- → Interest table
- → Supports basis amounts of Interest accruals.
- → Flexible interest calculation
- → Lien Marking
- → Interest calculation Minimum Monthly Balance/Daily Minimum Balance
- → Charge relevant fees and charges at month end.
- → Able to charge Withholding Tax on interest credited.
- → Generate Withholding Tax Certificate at calendar year end.
- → Ability to accept changes in tax rate for Withholding Tax at any point in time.
- → Ability to load overdraft limited and charge over limit fees at set intervals.
- → Flexibility of withdrawals paper and paperless.
- → Allows bulk posting of cheques at once and transaction to be updated later with individual lines.
- → Scanned copies of application forms to be uploaded on system.
- → Account to go inactive after 6 months and dormant after 12 months if no transactions from customer's end. After 10 years' account to be transferred to unclaimed monies.
- → Industry classification field.
- → Ability to add and remove multiple clients
- → Adding and deleting of signatories.
- → Savings account closing
- → Define funds management; standing orders, periodical payments, sweeps.
- → Account statement generation any defined period.
- → Features and specification to support electronic banking like Mobile Apps and Internet Banking.
- → Multiple account creation and bulk upload. For example, opening of multiple accounts like at once with relevant field and transactions through file uploads. Something similar to GL uploads.
- → Integrated with other channels (internet/mobile).

Module # Treasury

- → Covers front office and back office operations
- → Straight-through processing through integrated workflow
- → Streamlined treasury operations
- → Provides real-time credit and market risk management
- → Real-time updating of cash flows and projection
- → Birds view of entire assets and liabilities
- → Interest income forecast
- → Foreign currency transaction and accounts (Specification similar to Savings/Overdraft)
- → Nostro and Vostro Booking
- → Money market
- → Monitors and manages the interest rate exposures on the assets and liabilities for each portfolio, instrument, and their combination
- → Treasury front office management
- → Treasury management back office
- → Pre-trade and post-trade checking
- → Cash flow management
- → Supports upload and downloading of cash flow from Excel files.
- → Period-wise Cash flow list and drill downs
- → Cash flow listing with multiple currency, portfolio, and instrument type
- → Foreign currency transaction and accounts (Specification similar to Savings/Overdraft)
- → Local clearing payments and wire payments
- → Wire transfer settlement
- → Nostro and Vostro Booking
- → Treasury deals, settlements related to transactions of Loans, Payments and Trade Finance through NOSTRO/ VOSTRO accounts
- → Cross-currency transactions
- → Captures Correspondent bank details
- → Cash management and Liquidity Reports (in required formats)
- → Financial statement reporting
- → Transactions (Cash, Transfer, Clearing / payment) of accounts, deposits and Loans, deals, trades, contracts balances reported in the form of different financial statements at periodic intervals
- → Regulatory and management reports are available
- → Configure the Balance Sheet and Profit and Loss statements.
- → Foreign Exchange Reporting
- → Forward Booking
- → Earning at Risk and Value at Risk
- → Analytical and BI reports
- → Security features
- → Cash flow forecasting

- → AML compliance
- → Multi-currency ledgers
- → Statutory Reports

# **Trade/Corporate Finance**

- → Trade Finance Settings
- → Fx Currency management options
- → Manages complete life cycle of Trade Finance activities
- → Supports all ISO currencies
- → Supports processing of Funds Transfer from account-to-account
- → Bills of Exchange
- → Bills handling and payment release
- → Bill purchase
- → Bill negotiation
- → Bill discount
- → Bill collections
- → Processes outward and inward remittances of money
- → Capable of making suitable integrations with SWIFT and other payment gateways
- → Telegraphic Transfers Outward
- → Telegraphic Transfers Inward
- → Trade Collections Imports
- → Trade Collections Exports
- → Letters of Credit Imports
- → Letters of Credit Exports
- → Amendment of Letter of Credits
- → Captures details of purchase order and release of goods
- → Import Loans
- → Export Loans
- → Bonds & Bank Guarantees
- → Funds Transfers
- → SWIFT Capabilities

#### Module #

# **Financial Accounting**

- → Full-fledged financial accounting management
- → Records all financial transactions and its segregation and reporting
- → Equipped to communicate with other systems through APIs to transfer data between systems
- → All reporting is based on GAAP
- → Supports multi-currency accounting with a facility to reporting to home currency
- → Facility to define and set country wise taxes like tax at source, service tax etc, its

- components and applicability
- → Account Group creation
- → Account Head creation
- → Sub accounts creation
- → Cost centre definition
- → Currency Definition
- → Mapping of account heads, sub accounts to organization units
- → Bank account creation
- → Approval Workflow
- → Financial year opening and closing
- → Setting for CTR
- → Online Approval
- → Income and Expenditure (Profit and Loss)
- → Balance Sheet
- → Cash flow
- → Fixed assets reconciliation
- → Credit Risk Rating automated
- → Client Quality Rating
- → Calculators
- → Projection
- → Assets and Liabilities
- → Balance sheet
- → Reconciliations
- → Secure Transaction interfaces
- → Voucher entry
- → Year-end vouchers
- → Inter-branch transfers
- → Bank reconciliation
- → Group origination of inter branch vouchers
- → Group responding
- → Vault Management
- → End of Day processing
- → End of Year processing
- → Term loans and Term deposits
- → Cash denomination entry
- → Budgeting setting
- → Budget allocation
- → Voucher Printouts
- → IB Reconciliation Reports
- → Ledger
- → Trial Balance
- → Book of Accounts

- → Cost centre wise reports
- → Budget analysis
- → Ratio Analysis
- → Cash Transaction Report
- → Tax Report
- → Statutory Reports

# **Internet/Mobile Banking**

- → Internet Banking
- → Mobile Banking, Payment & Transfers
- → Easy and fast Registration process
- → Login credentials, transaction passwords and other authentication methods
- → Account details
- → Statements
- → Transactions
- → Logs for all activities
- → Omni channel experience
- → Real-time settlement
- → Multi-level user authentication mechanisms
- → Secure Transaction levels
- → Multi-level verification during transactions
- → Activity/attempts recorded in the system
- → Reporting capability
- → Customer registration process will be monitored and verified
- → Account information and mini statements

#### Module #

# Dashboards/Reports/BI/KPI

- → User-specific dashboard accessibility
- → Dashboard with funneled information
- → Business insights and activity alerts
- → Statutory reports
- → Able to extract any or all data for further analytical functions or for other purposes for end users or other systems in desired format.
- → Possible to extract any or all data for further analytical functions or for other purposes for end users or other systems in desired format.
- → Capable to capture financial data of the customer both current and projections, as needed e.g. Equity / capital details, Credit facility sanctioned/availed by/ from other institutions, profit and loss statements, balance sheet statements, projected cash flows, carry out comparison between estimated and actual achieved at the time of renewal

etc.

- → Regular and Consolidated Reports
- → Report Drill-down features
- → Report Exporting Mechanisms

## **Key Performance Indictor (KPI)**

- → Monthly Key Performance Indictor Dashboard
  - Officer Level
  - Branch level
  - Division Level
  - Bank Level
  - General Manager, Exco, & Board level reports
- → Income Report
  - o By Interest
  - o By Fees
  - o Total Income
- → Key Performance Indicators (KPI) Reports
- → Portfolio Report any point of time for any Officer
- → Non-Performing Loans(NPL) and (Preforming Loan Portfolio)
- → Security Value of Loan Ratio Calculation (SVLR)
- → Collection
  - Interest amount
  - Repayment
  - o Arrear's amount
  - o Fees
- → Portfolio by Major, Minor, Sector, Location, Gender etc.
- → Turnaround time report
- → Portfolio by Focus and non-focus
- → End of Day Reports
- → End of Month Reports

#### **Insurance**

- → Maintenance logs
- → Forms
- → Audit trails
- → Overdue
- → Incomplete
- → Renewal
- → New Business
- → Schedule of Insurance Renewals
- → Other reports

#### Legal

- → Renewals
- → Perfected
- $\rightarrow$  Overdue

- → Incomplete
- → Other reports

#### **Portfolio**

- → By Branch
- → By Officer
- → By Region
- → Whole Bank

#### **Month End Reports**

- → All accounts active and demand
- → Credit Risk Rating
- → Customer
- $\rightarrow$  Disbursement
- → Security Value of Loan Ration report
- → Loan Applications

#### OD

- → Accounts opened and Closed
- → Statement
- → Account Dormancy, Inactive and unclaimed monies report
- → Portfolio report
- → Deposit report per client daily and monthly
- → Account overdrawn report.
- → Account Dormancy, Inactive and unclaimed monies report

#### Savings

- → Accounts opened and Closed
- → Statement
- → Account Dormancy, Inactive and unclaimed monies report
- → Portfolio report
- → Account Dormancy, Inactive and unclaimed monies report

## **Term Deposits**

- → Account opening and closure report daily and monthly
- → Deposit report per client daily and monthly
- → Term deposit account balance and available balance mismatch report
- → Term Deposit with common fields

#### **Enterprise Risk Management**

- → Enterprise Risk Reporting (risk assessment reports dashboard/database)
- → Automation of Enterprise Risk Profile analysis for Board reports
- → Sectorial limit reports by product
- → All accounts post 1st disbursement by month
- → Credit Risk Rating report by month
- → All approvals with exception to policy by month
- → Downward movements in loan grade by month
- → Migration to Non-performing loans portfolio by branch by month

#### **Planning Unit**

- → Generate Reports (monthly) for:
  - Refinance accounts showing details by branch, refinanced by which institution, for which product
  - Loan product uptake for the month by branch
  - o Sector and sub-sector movements. Also show a 6 monthly and yearly trend analysis
  - Arrears trend by sector, sub-sector and by branches
  - Portfolio for agriculture, sme and corporate loans for total bank and by branch
- → Customer Portfolio Complete Customer Information
  - No. of accounts held by customer
  - Product uptake of customer
  - Based on customers lending activities, what other products can be offered to the customer
  - Arrears trend of customer
- → Generate monthly report on system enhancements

#### AMU

- → High Value Loans
- → Top 20 Non-Performing Loan
- → Greater than \$100K Non-Performing Loan still with Network
- → Non-Performing Loan Accounts for AMU Officers by value & no
- → Bank Non-Performing Loan Movement by value, no. & %
- → Top 20 Mortgage Sale report
- → Creating a tab for advertisement dates on mortgage sale accounts
- → Top 20 Legal Action
- → Creating a tab for Legal Action request received from network
- → Top 20 Sale of Asset Non-Performing Loan
- → Creating a tab for accounts where sale of asset to continue after write off
- → Quarterly Report
- → Summary of Non-Performing Loan against Bank Portfolio, Variance, Non-Performing Loan, Variance, Non-Performing Loan Ratio (%)
- → PLP & Non-Performing Loan Movement
- → Non-Performing Loan Collection
- → Bad debt
- → Write Offs



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