# Business Requirements Specification (BRS)

## For

# Microfinance ERP System

---

**Document Version:**        **1.0**

**Date Prepared:**        November 29, 2025

**Prepared For:**        Microfinance Program

**Confidentiality Level:**        Strictly Confidential

**Prepared by:**

---

## Revision History

| Version | Date | Changes Description | Approved By |
|---------|------|---------------------|-------------|
| 1.0 | November 29, 2025 | Initial Draft Creation | |

# Table of Contents

## Introduction

This document outlines the business requirements for the **Microfinance ERP System**. The system will manage and monitor all operational processes across the organization, ensuring that every activity follows standard microfinance practices and complies with MRA regulations.

It will cover key functions such as member enrollment, group formation, loan application, approval, disbursement, collection, and reporting. Each process will follow a clear approval path, allowing authorized users to complete and track their tasks efficiently at every level of the organization.

# BRS → ERP Module Mapping

This mapping shows how each section of the BRS aligns directly with the functional modules currently available in Shakti Foundation's ERP system. This ensures clarity for system enhancement, gap analysis, and future FMS development.

---

## 1. Member Module

Mapped BRS Sections:

- **2.1 Complete Member Lifecycle Management**
  - Prospect identification
  - Eligibility screening
  - Field verification
  - Document collection & KYC
  - Member admission
  - Member ID generation
  - Savings account creation
  - Center & group allocation
  - Activation

---

## 2. Savings Module

Mapped BRS Sections:

- **2.2 Savings Management**
  - My Savings (mandatory)
  - Voluntary savings
  - Minimum balance
  - Savings-to-loan ratio
  - Deposits
  - Withdrawals
  - Maker–checker
  - Ledger impact

---

## 3. Loan Module

Mapped BRS Sections:

- **2.3 Loan Lifecycle Management**
  - Application
  - Verification
  - Credit assessment
  - Approval routing
  - Loan fees & LSF
  - Disbursement logic

- **2.4 Repayment & Arrears Management**
  - Installment calculation
  - Arrears follow-up
  - PAR / Aging
  - Restructuring (if applicable)
  - Write-off logic

---

## 4. Cash Module

Mapped BRS Sections:

- **2.6.4 Daily Treasury & Cash Operations**
  - • Morning deposits
  - • Handover recording
  - • Afternoon deposits
  - • Late cash handling
  - • Vault management
  - • End-of-day reconciliation
  - • Deficit/surplus cash decisions

---

## 5. Accounting / Finance Module

Mapped BRS Sections:

- **2.8 Accounting & Financial Controls**
  - • Chart of Accounts
  - • GL posting rules
  - • Loan accounting
  - • Savings liability accounting
  - • LLP (Provisioning)
  - • Write-offs
  - • Reconciliation
  - • Branch–HO settlements

---

## 6. FMS (Financial Management System) Module

Mapped BRS Sections:

- 2.6 Treasury & Cash Flow
- 2.8 Accounting Logic
- 2.9 MIS & Financial Reporting
- 2.4 Loan Classification & Provisioning
- 2.2 Savings Liability Management
- 2.3 Loan Financial Rules

---

## 7. MIS Module

Mapped BRS Sections:

- **2.9 Comprehensive Reporting Framework**
  - • Member MIS
  - • Loan MIS
  - • Savings MIS
  - • Branch performance
  - • Cash position
  - • PAR/Aging/OTR
  - • Portfolio dashboards
  - • Compliance reports

---

## 8. Security Module

Mapped BRS Sections:

- **2.10 Access Control & User Roles**
  - • Role-based access
  - • Maker–checker separation
  - • Approval hierarchy

• Zone–Area–Branch visibility
• Audit view access
• User activity log

---

**9. External Report Module**

Mapped BRS Sections:

- **2.9 External & Regulatory Reporting**
  • PKSF formats
  • MRA formats
  • Project-specific reports

---

**10. bKash BAMIS Module**

Mapped BRS Sections:

- **2.5 Integration & Interface Requirements**
  • Digital collection integration
  • Payment reconciliation
  • Member matching logic
  • Auto-update to loan/savings accounts

---

# 1. Comprehensive Business Overview

## 1.1 Organizational Hierarchy & Operational Structure

### 1.1.1 Geographical Hierarchy

The Microfinance Program (MFP) operates nationwide through a multi-layered geographical structure to ensure effective supervision, operational control, and service delivery. The hierarchy is designed to enforce discipline, ensure quality portfolio management, and maintain compliance with internal policies and MRA regulations.

**A. Zone**

The highest field-level management tier.
- Supervises multiple Regions
- Monitors operational performance, loan portfolio quality, and compliance
- Approves higher-tier loans as per authority matrix
- Conducts strategic reviews and ensures policy implementation
- Work force: Zonal Head

**B. Region**

Reports directly to the Zone.
- Supervises multiple Areas
- Conducts monitoring visits and performance evaluations
- Ensures operational discipline across areas
- Coordinates field-level audits and corrective actions
- Work force: Region Head

**C. Area**

Reports to Region and supervises Branches.
- Oversees branch-level performance
- Ensures collection quality, attendance discipline, and portfolio performance
- Verifies cash operations and compliance at branches
- Provides operational support to Branch Managers
- Work force: Area Supervisor

**D. Branch**

Primary operational unit where microfinance activities are executed.
- Manages member enrollment, group formation, savings, and loan operations
- Oversees daily collections, disbursements, and cash management
- Supervises field staff (MFOs)
- Ensures center and group discipline
- Maintains records and reports to Area
- Work force: Branch Manager, Accountant, MFO

**E. Center**

A cluster of groups, operating as the weekly/montly meeting hub.
- Each center has multiple Groups
- Weekly/Monthly meetings are conducted here
- Field officers perform attendance, collection, documentation, and communication
- The center ensures discipline and operational structure

**F. Group**

The smallest operational entity.
- Members are admitted into Groups
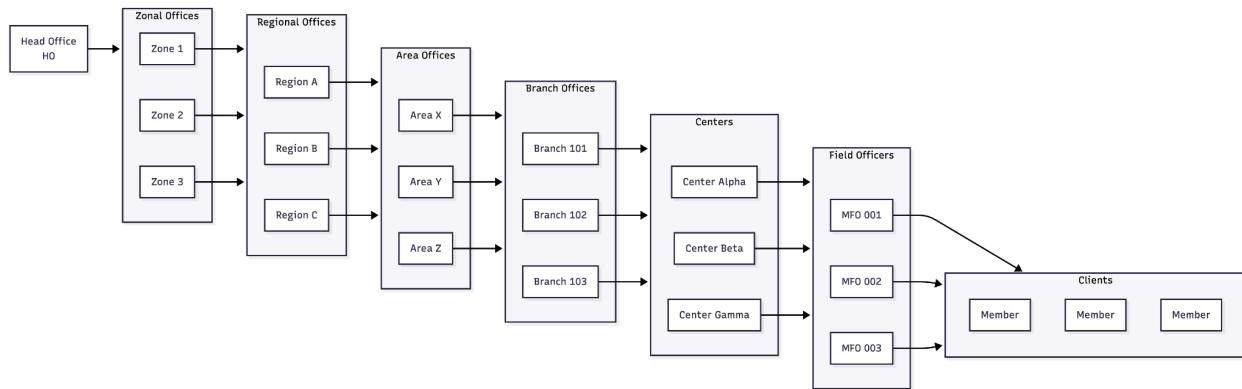
- Groups ensure peer-support and peer-liability
- Each group belongs to one specific Center
- Group structure enforces discipline, attendance, and repayment reliability

**G. Member**

The individual program participant.
- Admitted into a Group
- Eligible for savings and loan products
- Must maintain attendance and repayment discipline
- Participates in all center activities and compliance processes



### 1.1.2 Workforce Structure Across Offices

The Microfinance Program (MFP) employs a structured and role-driven workforce distribution across its geographical layers to ensure operational efficiency, monitoring accuracy, and compliance with internal policies and MRA regulations.

**A. Zone Office Workforce**
- Zonal Head (ZH) – Head of the Zone -
  - Oversees all Regions within the Zone
  - Ensures operational compliance and performance

**B. Regional Office Workforce**
- Regional Head (RH) –
  - Supervises Areas under the Region
  - Monitors loan performance, collections, and compliance

**C. Area Office Workforce**
- Area Supervisor (AS) –
  - Supervises Branches under the Area
  - Ensures field discipline, timely collections, and accurate reporting

**D. Branch Office Workforce**
- Branch Manager (BM) –
  - Head of branch operations; approves loans within authority.
- Accountant –
  - Manages cash, records, vouchers, and system entries.
- Microfinance Officers (MFOs) –
  - Field-level staff responsible for centers, groups, and members, loan & savings installments collection.

**E. Center-Level Workforce**

- No dedicated staff.
- Centers are managed and operated by assigned MFOs.
- All weekly/monthly meeting activities occur under MFO supervision.

**F. Group-Level Workforce**
- No dedicated staff.
- Groups consist of members only, supervised by MFOs.

**G. Member Level**
- No workforce categorization — members are program participants.

### 1.1.3 Departmental Structure at Head Office

The Head Office oversees all Microfinance Program (MFP) operations and ensures that field activities comply with Shakti Foundation's policies, operational guidelines, and regulatory requirements. The following departments constitute the formal structure involved in planning, monitoring, training, compliance, and system operations.

**A. Program Department**
- Designs and updates microfinance products
- Develops operational guidelines and field instructions
- Sets annual/monthly portfolio and collection targets
- Reviews program performance across Zones, Regions, and Areas
- Provides corrective actions and strategic program expansion support

**B. Finance Department**
- Manages fund flow, treasury, and budget allocations
- Oversees financial reporting and reconciliation
- Ensures adherence to MRA financial reporting requirements
- Supports branch-level accounting and expenditure control

**C. Audit Department**
- Conducts periodic branch audits
- Monitors compliance with MFP operational guidelines
- Reviews documentation, cash management, and collection processes
- Reports operational and financial irregularities
- Provides recommendations for corrective actions

**D. Training & Capacity Building Department**
- Designs and implements staff training programs
- Conducts orientation for new field employees (MFO, BM, AS)
- Provides refresher training to maintain operational discipline
- Ensures consistent understanding of MFP policies across all field levels

**E. Administration Department**
- Manages logistics, office administration, and general support
- Facilitates branch setup, maintenance, and resource allocation
- Handles procurement and distribution of operational supplies
- Provides administrative support for field and HO operations

**F. MIS / IT Department**
- Manages the Microfinance ERP and digital platforms
- Oversees system configuration, user access control, and data security
- Maintains servers, databases, backups, and disaster recovery

- Provides technical support to branches, areas, regions, and zones
- Executes system upgrades, integrations, and troubleshooting
- Ensures real-time synchronization of field and branch-level data

**G. Human Resources (HR) Department**
- Manages recruitment, staffing, and deployment of field and HO employees
- Oversees payroll, attendance, and performance evaluations
- Maintains employee service records and HR compliance documentation
- Coordinates disciplinary actions, promotions, and transfers
- Supports staff welfare, retention, and career development

# 1.2 Core Business Model & Revenue Streams

Shakti Foundation's Microfinance Program (MFP) operates under a self-sustainable financial model. Revenue is generated primarily from service income on loan products, supported by member fees and savings mobilization, while expenditures are driven by staff and operational costs required for nationwide field operations.

### 1.2.1 Primary Revenue Sources (Shakti MFP)
Shakti Foundation earns revenue through the following officially recognized sources:
**A. Service Charge on Loans (Primary Revenue Source)**
- Service charge rates vary by loan product category (e.g., Jagoron, Agrosor, Sufolon, etc.).
- Calculated on a flat-rate method as per MFI industry practice.
- Major contributor to MFP's sustainability.

**B. Membership-Related Fees**
    These vary depending on program rules and loan product type:
- **Admission Fee** – one-time membership onboarding fee
- **Assessment Fee** – charged during loan application assessment
- **Loan Processing Fee**
- **Health Service Fee**
- **Stamp Duty** – as per government requirement
- **Passbook / ID replacement fees**

These fees help recover administrative and documentation costs.

**C. Savings Mobilization**
    While savings are **liabilities** (not revenue), they support:
- Internal fund availability
- Cash flow for on-time disbursements
- Reduction of dependency on external borrowing

Savings mobilization indirectly strengthens the financial base.

**D. PENAL & MISCELLANEOUS INCOME**
- Late payment penalties
- Overdue interest recovery
- Miscellaneous charges due to policy violations

These are not major revenue contributors but support accountability.

**E. Grants & Donor Support (Program-Specific, Not Core Revenue)**
    For SDG-based loans (e.g., WASH, Solar, etc.), Shakti may receive:
- PKSF refinancing
- Donor program support
- Impact-linked incentives

These are *not counted as primary revenue*, but support operations.

**Summary of Revenue Structure**
1. **Service Charge Income** → Core revenue
2. **Membership & Loan Fees** → Administrative cost recovery
3. **Savings Mobilization** → Strengthens liquidity
4. **Penalties & Miscellaneous Income** → Minor revenue
5. **Program Grants/PKSF Funds** → Program support, not recurring revenue

## 1.2.2 Cost Structure (Shakti MFP Actual Structure)

Shakti's cost structure for microfinance operations includes both **operational** and **financial** expenditures.

### A. Operational Costs (Largest Expense Segment)
- Field staff salaries (MFOs)
- Branch Manager and Accountant salaries
- Zonal, Regional, and Area Supervisor salaries
- Transportation allowances for center visits
- Branch office rent and utilities
- Office supplies, communication, logistics
- Field travel allowance (TA/DA)
- Training and capacity building expenditure

These are the **biggest cost drivers** of the microfinance program.

### B. Financial Costs
- Cost of funds for loan capital (PKSF borrowing, bank loans)
- Interest or service charge payable to funding agencies
- Loan-loss provisioning (as per MRA rules)
- Reserve requirements and capital adequacy costs

### C. Compliance & Regulatory Costs
- MRA licensing and renewal fees
- Regulatory reporting and audit expenses
- Statutory documentation (stamp, government charges)
- Compliance monitoring expenses

### D. Technology & System Costs
- ERP and MIS system operation
- Server hosting, data center maintenance
- Mobile app maintenance for field officers
- IT infrastructure, hardware, and internet
- Cybersecurity & backup systems

### E. Administrative & HO Costs
- HR, Admin, MIS, Training department expenses
- Office rent, utilities, overheads
- Program design and product development expenses
- Internal meetings, monitoring visits, HO logistics

**Summary of Cost Structure**
1. **Operational Costs** → Highest cost segment
2. **Financial Costs** → Borrowing + provisioning
3. **Compliance Costs** → MRA-related
4. **Technology Costs** → ERP, MIS, field apps
5. **Administrative Costs** → HO overheads

# 2. Detailed Business Process Flows

## 2.1 Complete Member Lifecycle Management

Member onboarding under the Shakti Foundation Microfinance Program (MFP) follows a structured, rule-based process designed to ensure proper eligibility, group discipline, and operational consistency. The process combines field-level verification, group-based integration, documentation, KYC compliance, and branch-level approval. The lifecycle defined below is fully aligned with the official MFP operation manual while structured for ERP workflow implementation.

### 2.1.1 Prospect Identification & Qualification (MFO Level – Based on Chapter 1 & Chapter 2 of MFP Manual)

A. Household Area Survey
- MFO identifies potential members within the approved branch working area.
- Areas must align with poverty-level segmentation, access feasibility, and MFP operational boundaries.

B. Basic Eligibility Rules
Potential members must meet the following criteria (per Chapter 1):
1. Women aged **18–60**
2. Permanent resident of the locality
3. Belonging to a target-group household (low-income or moderate-income segment defined by MFP criteria)
4. Running or planning a small economic activity (trading, livestock, tailoring, services, etc.)
5. Must not have overdue loans with any other NGO/MFI
6. Must be willing to follow group, center, and weekly/monthly meeting discipline
7. Must not be part of any legally restricted activities
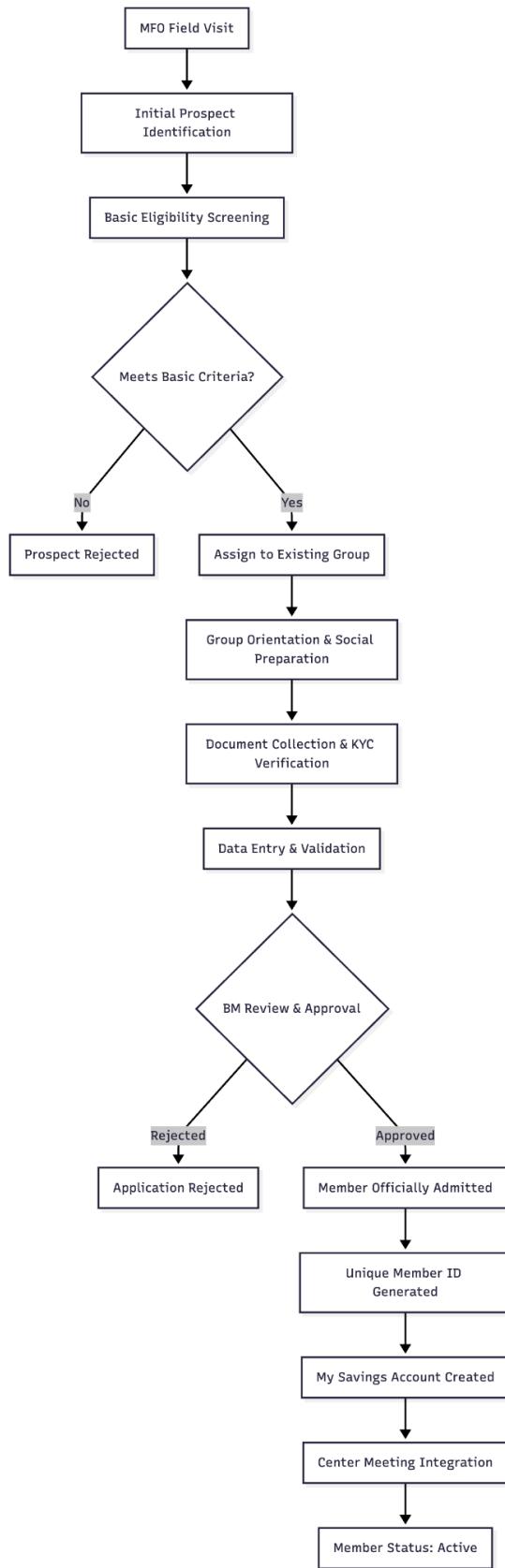
C. Preliminary Household Inquiry
- MFO collects information on:
    - Family composition
    - Economic activity
    - Income sources
    - Financial obligations
    - Existing borrowing behavior
- Confirms eligibility through neighbor/community references (social inquiry).

D. Prospect Listing
- Eligible prospects are entered into a **Prospect Register**
- Only enlisted prospects move to the next stage: **Group Assignment**

```
                    ┌─────────────────┐
                    │  MFO Field Visit │
                    └─────────────────┘
                             │
                             ▼
                    ┌─────────────────┐
                    │ Initial Prospect │
                    │  Identification  │
                    └─────────────────┘
                             │
                             ▼
                    ┌──────────────────────┐
                    │ Basic Eligibility     │
                    │ Screening             │
                    └──────────────────────┘
                             │
                             ▼
                         ◇ Meets Basic Criteria? ◇
                        No │              │ Yes
                           ▼              ▼
                 ┌─────────────────┐  ┌──────────────────────┐
                 │ Prospect Rejected│  │ Assign to Existing    │
                 └─────────────────┘  │ Group                 │
                                      └──────────────────────┘
                                               │
                                               ▼
                                      ┌──────────────────────┐
                                      │ Group Orientation &   │
                                      │ Social Preparation    │
                                      └──────────────────────┘
                                               │
                                               ▼
                                      ┌──────────────────────┐
                                      │ Document Collection & │
                                      │ KYC Verification      │
                                      └──────────────────────┘
                                               │
                                               ▼
                                      ┌──────────────────────┐
                                      │ Data Entry & Validation│
                                      └──────────────────────┘
                                               │
                                               ▼
                                         ◇ BM Review & Approval ◇
                                     Rejected │         │ Approved
                                              ▼         ▼
                           ┌─────────────────┐  ┌──────────────────────┐
                           │ Application      │  │ Member Officially     │
                           │ Rejected         │  │ Admitted              │
                           └─────────────────┘  └──────────────────────┘
                                                          │
                                                          ▼
                                                ┌──────────────────────┐
                                                │ Unique Member ID      │
                                                │ Generated             │
                                                └──────────────────────┘
                                                          │
                                                          ▼
                                                ┌──────────────────────┐
                                                │ My Savings Account    │
                                                │ Created               │
                                                └──────────────────────┘
                                                          │
                                                          ▼
                                                ┌──────────────────────┐
                                                │ Center Meeting        │
                                                │ Integration           │
                                                └──────────────────────┘
                                                          │
                                                          ▼
                                                ┌──────────────────────┐
                                                │ Member Status: Active │
                                                └──────────────────────┘
```

**2.1.2 Group Assignment (Routine Case)** *(Based on Chapter 2 — Group Structure & Rules)*

Most new members are NOT placed in newly created groups. They are assigned to an existing group under an existing center.

A. Group Structure per MFP Manual

- Each group contains **4–6 members**.

- Groups are part of a **center**, not standalone units.

- Group members must:

    - Reside close to each other

    - Know each other personally

    - Maintain peer discipline and accountability

B. Group Assignment Rules

- MFO assigns the incoming member to a group with vacancy.

- A group cannot exceed its maximum capacity.

- The group must approve the inclusion of the new member.

- Group members validate:

    - Character

    - Business activity

    - Repayment reliability

C. Group Orientation (Only Required for New Members in Existing Groups)
MFO provides orientation on:

- Group liability

- Center meeting rules

- Weekly/Monthly savings

- Discipline & attendance

- Loan eligibility rules

- Member responsibilities


**2.1.3 New Group Formation (Only When Necessary***)*

A new group is created when:
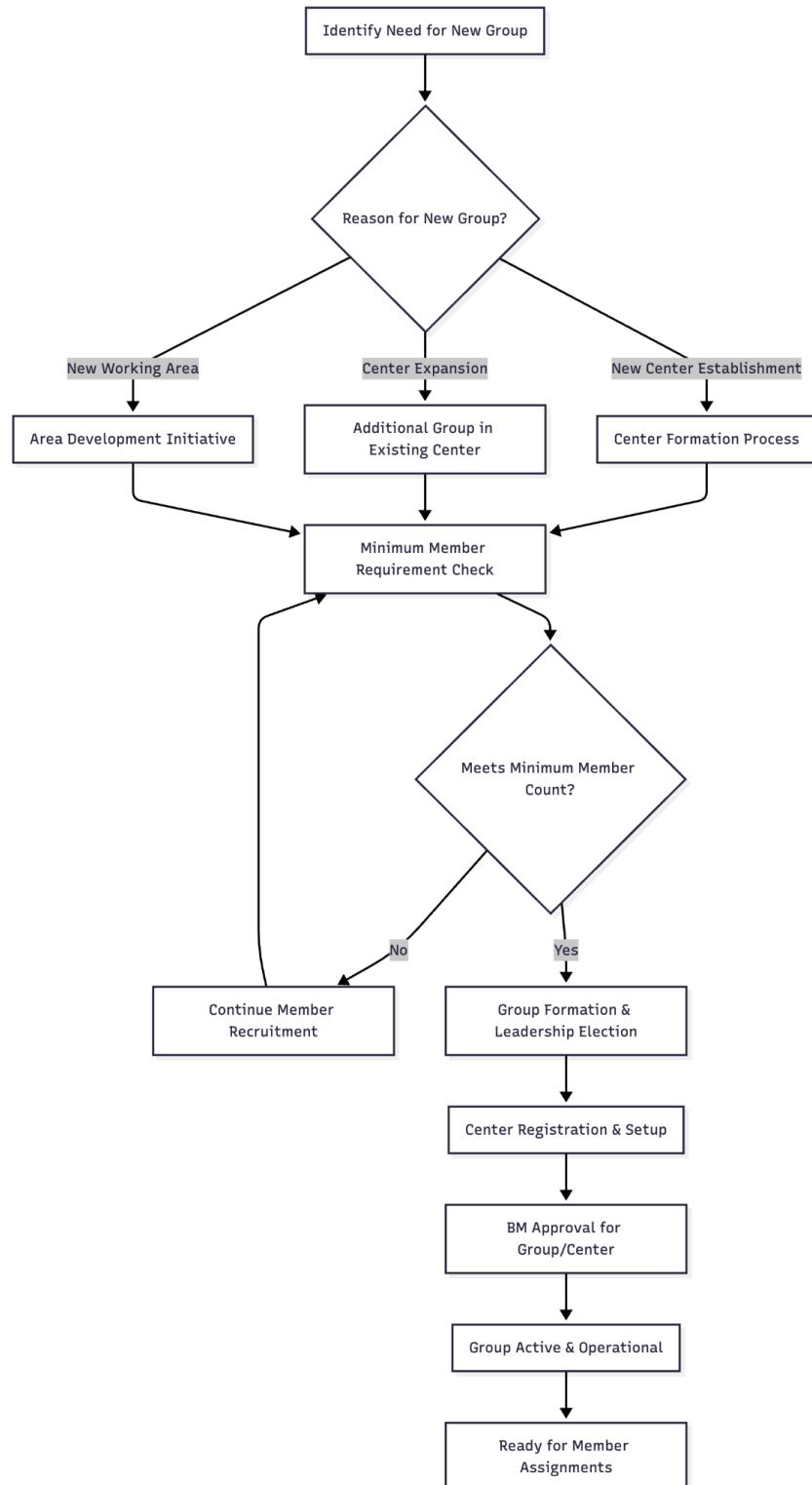
- A new center is formed

- Existing center capacity is inadequate

- Geographic expansion occurs

- A branch begins operations in a new locality


A. Group Creation Steps
1. Identify 4–6 eligible women in proximity

2. Conduct social preparation meeting

3. Explain group rules, center discipline, loan rules

4. Register the group

5. Submit group list to Branch Manager for confirmation

**NOTE:**
 This step is **NOT** part of routine membership admission.
 It is a **separate operational process**, and your flowchart will reflect that.

```
                        ┌─────────────────────────┐
                        │ Identify Need for New Group │
                        └─────────────────────────┘
                                     │
                                     ▼
                              ◇ Reason for New Group? ◇

      New Working Area        Center Expansion        New Center Establishment
             │                      │                        │
             ▼                      ▼                        ▼
   ┌──────────────────┐   ┌──────────────────┐   ┌──────────────────────┐
   │ Area Development │   │ Additional Group in│   │ Center Formation Process │
   │ Initiative       │   │ Existing Center    │   │                      │
   └──────────────────┘   └──────────────────┘   └──────────────────────┘
             │                      │                        │
             └──────────────────────┼────────────────────────┘
                                     ▼
                          ┌──────────────────┐
                          │ Minimum Member   │
                          │ Requirement Check│
                          └──────────────────┘
                                     │
                                     ▼
                          ◇ Meets Minimum Member Count? ◇
                            │                    │
                           No                   Yes
                            ▼                    ▼
              ┌──────────────────┐   ┌──────────────────────┐
              │ Continue Member  │   │ Group Formation &    │
              │ Recruitment      │   │ Leadership Election  │
              └──────────────────┘   └──────────────────────┘
                                              │
                                              ▼
                                   ┌──────────────────────┐
                                   │ Center Registration & Setup │
                                   └──────────────────────┘
                                              │
                                              ▼
                                   ┌──────────────────┐
                                   │ BM Approval for  │
                                   │ Group/Center     │
                                   └──────────────────┘
                                              │
                                              ▼
                                   ┌──────────────────────┐
                                   │ Group Active & Operational │
                                   └──────────────────────┘
                                              │
                                              ▼
                                   ┌──────────────────┐
                                   │ Ready for Member │
                                   │ Assignments      │
                                   └──────────────────┘
```

### 2.1.4 Document Collection & KYC Verification *(Based on MFP Manual Chapter 2 requirements)*

Mandatory Documents
- National ID (NID)
- Photographs
- Husband/Family details
- Nominee information
- Business or income details (if loan-seeking)

KYC Procedures
- NID verification
- Address confirmation
- Cross-checking with group references
- Matching physical & digital documents
- Checking inclusion in MFI blacklist if applicable

All verified documents are submitted to the Branch Manager.

### 2.1.5 Branch Manager Review & Approval

The Branch Manager (BM) validates:
- Eligibility
- Group assignment correctness
- Social preparation completion
- Documentation accuracy
- KYC compliance
- No operational or policy conflict

If approved:
- Prospect becomes a Member
- System generates Unique Member ID

If rejected:
- Prospect is removed from the process
- MFO updates register accordingly

### 2.1.6 Member Admission & Savings Account Setup

Upon BM approval:

**A. Member Admission Steps**
- Member is formally registered under:
  - Zone → Region → Area → Branch → Center → Group
- Member Profile is created in the ERP

**B. Mandatory Savings Account**
Per MFP policy:
- A compulsory savings account is opened
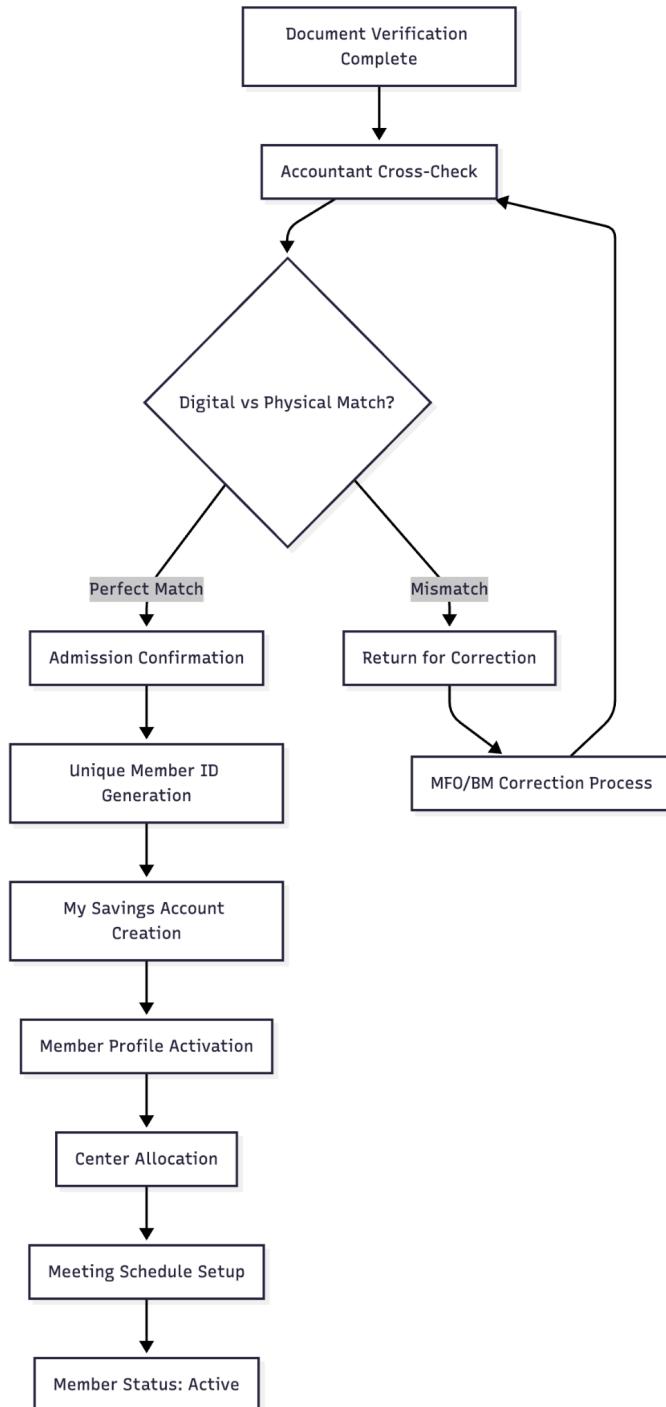
- Initial deposit collected per branch rule
- Savings ledger is created in ERP

**C. Center Integration**
- MFO introduces the new member in the next center meeting
- Center approves and records attendance
- The member becomes officially active

### 2.1.7 Loan Eligibility (Post-Admission)

A new member becomes **loan-eligible** only after:

1. Being admitted as a member
2. Opening savings account
3. Attending center meetings regularly
4. Maintaining weekly/monthly savings
5. Receiving group and center endorsement
6. No objections raised during the early membership stage

Then they may proceed to **Loan Application Process (Section 2.3).**

### 2.1.8 Member Responsibilities (As per MFP Manual – Chapter 2)
Each admitted member must adhere to the following responsibilities to maintain active membership status:
1. **Attend Weekly/Monthly Center Meetings**
   - Being present at the scheduled time and location.
   - Absenteeism without valid reason affects group discipline.
2. **Maintain Regular Savings Deposits**
   - Weekly/Monthly compulsory savings as defined in the manual.
   - Follow product-specific savings rules.
3. **Repay Loan Installments on Schedule**
   - Timely repayment at center meetings.
   - No third-party collection is allowed.
4. **Follow Center and Group Discipline**
   - Maintain decorum during meetings.
   - Abide by group decisions and center norms.
5. **Provide Updated Information**
   - Report changes in business, income, family condition, or residence.
   - Notify MFO of issues affecting repayment ability.
6. **Participate in Social Preparation Programs**
   - Attend awareness sessions organized by Shakti Foundation.
Failure to comply may result in warnings, probation, or early deactivation.

### 2.1.9 Group Responsibilities (As per MFP Manual – Chapter 2)
Groups serve as the foundational social and operational unit of the MFP. Their responsibilities include:
1. **Screening New Members**
   - Evaluate whether the member fits group and community norms.
   - Approve or reject the prospect before BM approval.
2. **Ensuring Peer Accountability**
   - Members support each other in savings and repayment.
   - Address behavioral or financial issues early.
3. **Maintaining Group Discipline**
   - Attend orientation and social preparation.
   - Follow center rules together.
4. **Supporting Center Functioning**
   - Ensure meetings start on time.
   - Help MFO maintain orderly transactions.
5. **Communicating Issues to MFO**
   - Report concerns, risks, or non-compliance.

○ Works as the first-level monitoring mechanism.

### 2.1.10 Rejection Criteria (Prospect Rejection According to Manual Rules)
A prospect may be **rejected** during any stage if one or more conditions apply:
1. **Identity Mismatch**
    ○ NID mismatch, wrong name, incorrect age, or false address.
2. **Non-Compliance with Eligibility Criteria**
    ○ Age outside permitted range
    ○ Not part of target-group income segment
3. **Negative Social/Behavioral Indicators**
    ○ Poor reputation in community
    ○ Group-level rejection
    ○ Known habitual defaulter
4. **Unstable Household Condition**
    ○ Frequent migration
    ○ Temporary residence
    ○ No economic activity
5. **Inconsistent Information Across Documents**
    ○ Conflict between physical and digital documents
6. **Prior Overdue or Write-Off History in Other MFIs**
    ○ Violates Shakti's multi-lending and risk rules

Rejection is recorded by MFO and approved by BM.

### 2.1.11 Hold / Defer Criteria (Prospect Pending Status)
A prospect may be placed on **hold** (deferred) instead of rejection, under these conditions:
1. **NID Correction Needed**
    ○ Minor errors in demographic details needing update.
2. **Waiting for Group Approval**
    ○ Existing groups have not yet reviewed the prospect.
3. **Center Capacity Full**
    ○ No available slot in any group under the center.
4. **Pending KYC Data**
    ○ Missing photo, incomplete address verification.
5. **BM Pending Review**
    ○ Awaiting final approval while review backlog exists.
6. **Temporary Household Constraints**
    ○ Illness
    ○ Absence
    ○ Seasonal business workload

Prospect is automatically re-evaluated in the next cycle.

### 2.1.12 Early Member Deactivation Rules (Initial Phase)
A newly admitted member may be deactivated during the early membership stage (first few weeks) if:
1. Fails to Attend Initial Center Meetings Repeatedly
2. Fails to Make Initial Savings Deposits
3. Provides False or Fraudulent Information
4. Behavioral Problems Identified by Group
5. Center Rejects the Member After Observation Period
6. Fails to Complete KYC Post-Admission Clarifications
7. Violates Basic Shakti MFP Policies

Deactivation must be approved by BM and recorded by MFO.

### 2.1.13 Exception Handling (Operational Deviations)

In special circumstances, deviations may occur. The ERP must track exceptions:
1. Prospect Withdraws Voluntarily
2. Member Relocates Before Final Activation
3. Duplicate Group Assignment Detected
4. Correction Required After BM Approval
5. Mismatch Between Social Inquiry & KYC Appears Later
6. Temporary Suspension Due to Family Emergencies

Exception workflows are triggered automatically and reviewed by BM.

**Critical Business Rules:**
- Member ID must be unique and sequentially generated
- Savings account automatically created upon admission
- Center allocation based on geographical proximity
- Member status determines service accessibility

## 2.2 Comprehensive Savings Management (Aligned to Shakti MFP Manual)

Savings management is a compulsory and integral part of the Shakti Foundation Microfinance Program. Every active member must maintain savings deposits as per program rules and center meeting schedules. Savings promote financial discipline, improve loan eligibility, and strengthen the capital structure of the institution.

### 2.2.1 Types of Savings (As per MFP Manual)

Shakti Foundation maintains the following savings categories:
A. Compulsory Savings (Weekly/Monthly Center Savings)
- Mandatory for every active member.
- Deposited weekly/monthly at center meetings.
- Amount may be fixed or flexible depending on branch-level operational rules.
- Recorded in the Member's Savings Ledger and Group Register.

B. Voluntary Savings *(if applicable)*
- Optional for members who deposit additional funds.
- Deposited directly at the branch, not at the center.
- Withdrawals follow specific approval and verification rules.

C. Special Savings *(Program-specific)*
Some branches may run special savings schemes (e.g., festival savings, targeted savings), subject to program guidelines.

### 2.2.2 Savings Deposit Process (Routine Weekly/Monthly Process)

1. Collection at Center Meeting
- MFO collects savings during the center meeting.
- Savings amount is announced publicly to ensure transparency.

2. Recording in Paper-Based Registers
- Center Savings Register
- Group Savings Sheet
- Member Passbook (if used in branch)

3. System Entry
After returning to the branch, MFO:
- Enters savings in the ERP
- Submits cash + supporting documentation to accountant

4. Accountant Verification
- Cross-checks physical registers and ERP entries

- Counts cash and reconciles amounts
- Reports discrepancies to BM

5. Branch Ledger Update

Accountant updates:
- Daily Savings Ledger
- Cashbook
- Center-wise collection sheets

### 2.2.3 Savings Withdrawal Process (As per Manual)

**A. Withdrawal Eligibility**

Members may withdraw voluntary or permissible compulsory savings under:
- Loan closure
- Emergency need
- Program-specific withdrawal policy
- Branch discretion within limits

**B. Withdrawal Procedure**
1. Member submits withdrawal request
2. MFO checks member's status (active/inactive/default)
3. BM verifies and approves request
4. Accountant disburses amount
5. All entries are updated in ERP + savings ledger

**C. Restrictions**
- Members with outstanding loans generally cannot withdraw compulsory savings
- Withdrawals are not allowed at center meetings
- Must be processed only from the branch

### 2.2.4 Savings Account Rules (Mandatory Compliance)

According to the MFP manual, the following rules apply:

**Rule 1 —** Every Member Must Maintain a Savings Account

Savings account is created at the time of admission.

**Rule 2 —** Center Attendance Is Linked With Savings

Savings must be deposited weekly/montly during meetings.

**Rule 3 —** No Third-Party Deposits or Withdrawals

Only the verified member can transact.

**Rule 4 —** Savings Act as Security for Loans

Member cannot withdraw compulsory savings when loan is outstanding.

**Rule 5 —** Savings Ledger Must Match ERP Entries Daily

Daily reconciliation is mandatory.

**Rule 6 —** Passbook or Digital Receipt Is Required (Branch Specific)

Member must receive verification of their savings.

### 2.2.5 Savings Reconciliation (Daily Process)

Performed by the accountant and verified by the Branch Manager:
1. Compare MFO collection sheet with ERP entries
2. Count cash physically
3. Verify center-wise totals
4. Update daily savings ledger
5. Prepare daily reconciliation statement
6. Submit to Area Office if required

### 2.2.6 Exception Handling (Savings Module)

1. Mismatch Between Physical & Digital Savings

- Flag raised
- MFO correction required
- BM oversight

2. Deposit Reversal
- Only BM-initiated
- Requires correction log

3. Missed Savings Collection
- Marked as absent
- Member may be warned or disciplined
- ERP logs missing entries

4. Incorrect Savings Posting by MFO
- Requires correction request
- Accountant re-verifies
- BM approval needed

### 2.2.7 Savings and Loan Eligibility Relationship

1. Savings directly impacts loan eligibility:
- Member must maintain minimum weeks/months of savings before loan application
- Irregular savings may affect repayment confidence
- Group may restrict loan recommendation

2. Loan eligibility begins only when:
- Member has consistent savings history
- Member maintains center attendance
- Savings ledger is clean and verified

### 2.2.8 Dormant Savings & Exit
**A. Dormant Members**
If a member becomes inactive:
- Savings account remains open but flagged
- Withdrawals limited as per policy

**B. Member Exit**
Upon exit from the program:
1. Member must close all outstanding liabilities
2. All savings refunded (after verification)
3. Account closed in ERP
4. Documentation archived

## 2.3 Loan Management Lifecycle

Shakti Foundation's loan management system follows a structured, unified loan lifecycle applicable to all loan categories (Jagoron, Agrosor/MC, SME, WASH, PKSF). While the overall flow is identical, specific rules (ceilings, verification depth, documents, approval levels) vary by product and must be configurable through a Unified Loan Rule Engine.

### 2.3.1 Loan Eligibility Preconditions (Common Across All Products)
A member becomes eligible to initiate a loan only when the following conditions are met:
**A. Membership Conditions**
1. Member is active.
2. Center-assigned and attends meetings regularly.
3. Group accepts and supports the member.

4.

**B. Savings Conditions**
1. Compulsory savings are consistent and up to date.
2. Savings balance fulfills minimum product requirement (to be defined in rule engine).
3. No savings arrears or discrepancy.

**C. Loan History Conditions**
1. No outstanding arrears.
2. Previous loans handled responsibly.
3. Loan cycle progression allowed per product rule.

**D. Other Conditions**
1. Valid and updated KYC.
2. Member fits the product's target segment (e.g., SME vs Jagoron).
3. Member expresses a valid business need.

### 2.3.2 Loan Application Initiation
Steps:
1. Member submits loan request to the MFO.
2. MFO fills the preliminary loan application in ERP.
3. Loan Utilization Sector (Mandatory): The loan application must include a mandatory dropdown field for selecting the intended utilization sector aligned with PKSF and Shakti categories. Allowed values may include:
   - Agriculture
   - Livestock
   - Fisheries
   - Small Business
   - Trading
   - Manufacturing
   - Services
   - Transport
   - Housing
   - Education
   - Health
   - Others (with text description)

   This field must be stored in the loan master table and must be used in MIS analytics, PKSF reporting, and product-level exposure analysis.
4. Group discusses and provides group-level approval.
5. Center reviews and endorses the application during center meeting.
6. Application forwarded to Branch Manager (BM) for screening.

This ensures every loan is socially validated before entering the approval pipeline.

### 2.3.3 Savings–Loan Integration Logic (System-Level Check)
As part of the loan request process, the ERP performs:
**A. Account Status Verification**
- Valid member status
- Active savings account
- No KYC issues

**B. Savings Balance Requirements**
Defined in the Unified Loan Rule Engine.
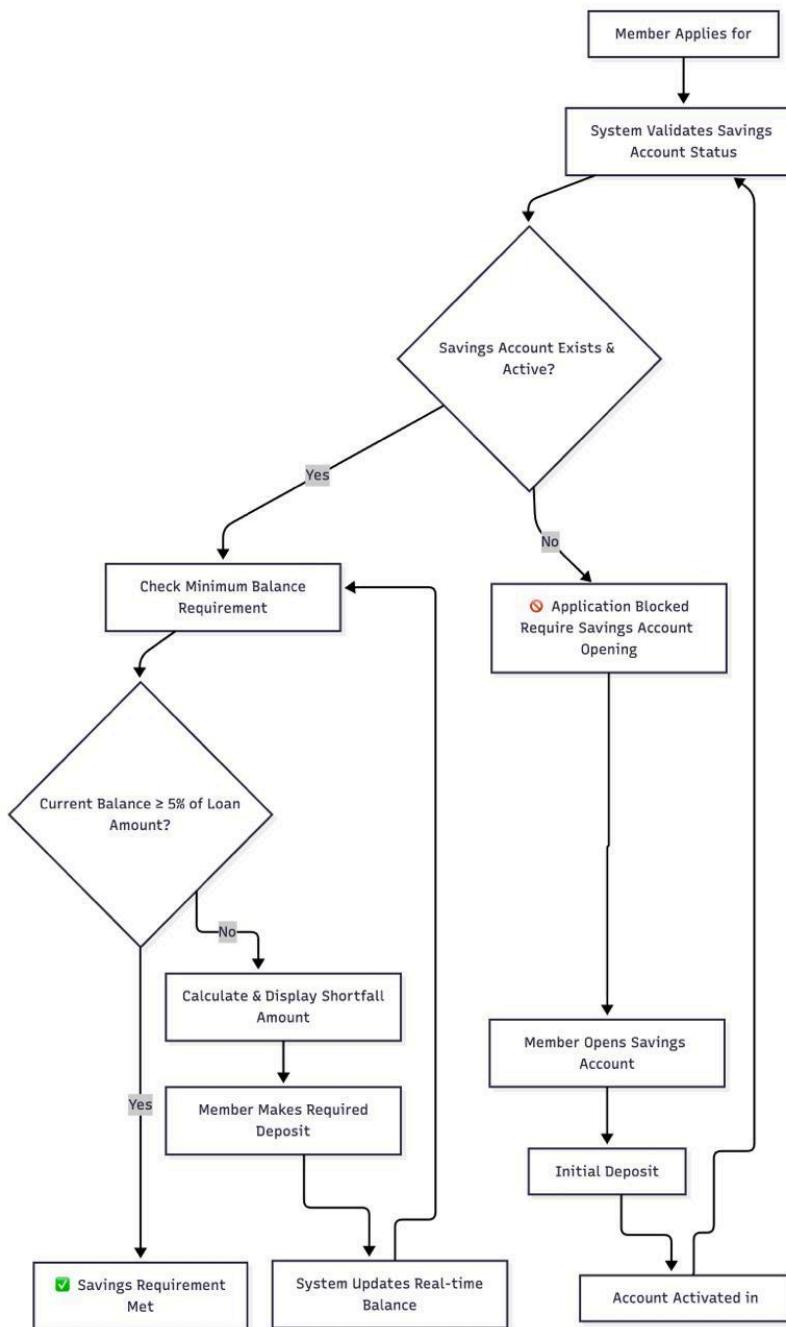
**C. Savings Consistency Check**

- Weekly/Monthly savings adherence
- No skipped weeks/months
- No pending deposits

**D. Shortfall Handling**
If savings < required minimum:
- System calculates shortfall
- Member deposits the deficit
- System updates savings before loan can proceed

### 2.3.4 Field Verification (Depth Varies by Product & Amount)
Common Verification Steps:
- Household visit
- Business visit
- Income & expenditure assessment
- Asset and working capital review
- Guarantor verification
- Cross-check with community references

Product-Specific Verification Depth (From Rule Engine):
- Jagoron: Basic
- Agrosor/MC: Medium
- SME: Detailed, financial review
- WASH: Purpose-based
- PKSF Loans: Mandatory PKSF verification formats

The ERP determines required verification steps based on product configuration.

### 2.3.5 Risk Assessment & Documentation Review
Risk Scoring Factors:
- Savings discipline
- Attendance discipline
- Repayment behavior
- Income stability
- Guarantor stability
- Multiple borrowing status

Documentation Requirements:
- NID (member & guarantor)
- Verification forms
- Business evidence (if applicable)
- PKSF supporting documents
- Center & Group recommendation sheets

System assigns a risk category → Low / Medium / High.

### 2.3.6 Loan Approval Workflow
Approval routing depends on loan amount, product type, and risk category, controlled by the Loan Rule Engine.
Unified Approval Path:
1. Branch Manager (BM)
2. Area Office
3. Regional Office
4. Zonal Office
5. Head Office, mainly Dept Head of Program & Head of Program (for largest loans)
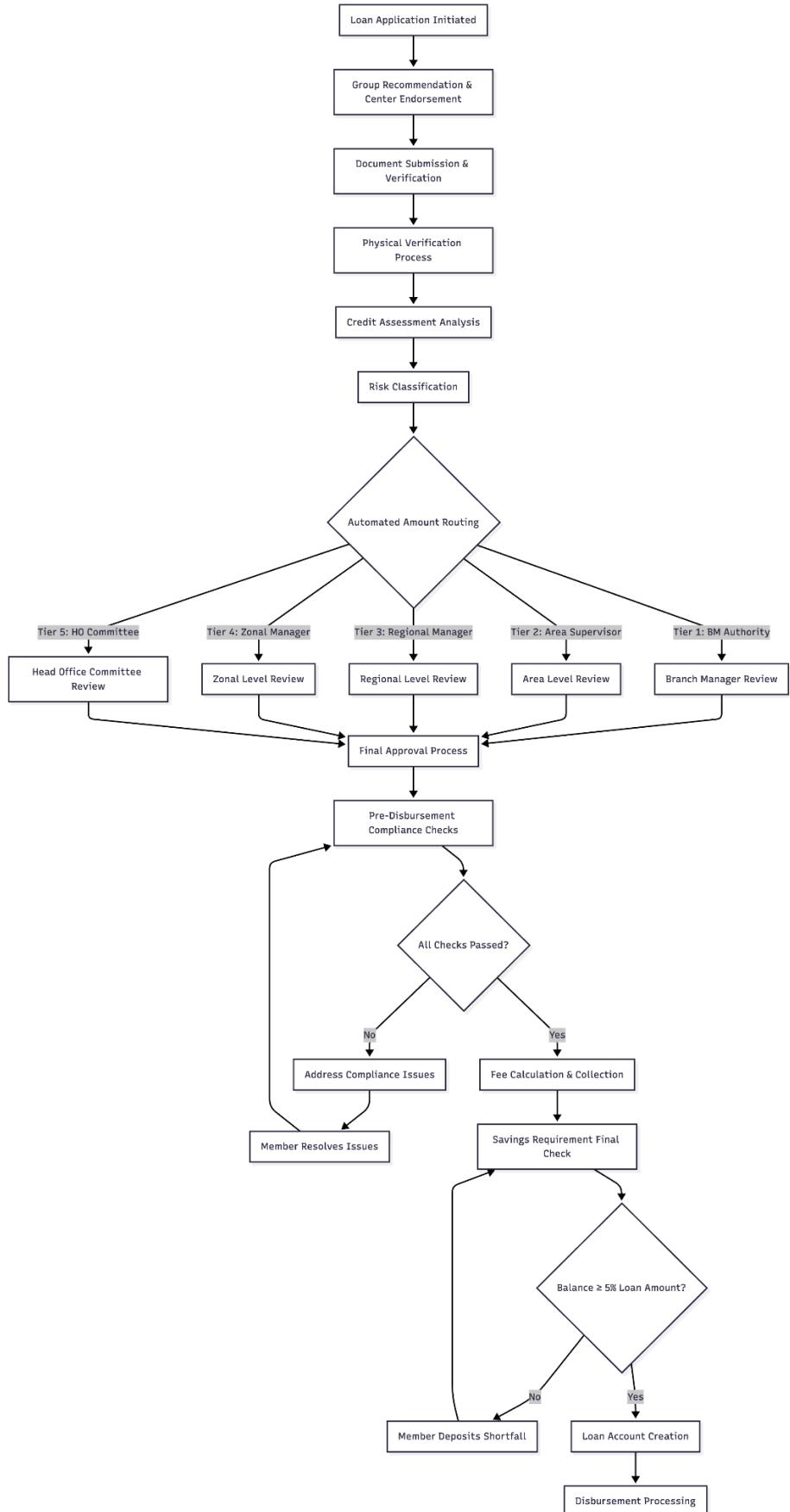
System enforces:
- Approval limits
- Escalation paths
- Product-specific authorization

No approval can bypass system policy.

Loan Application Initiated

Group Recommendation & Center Endorsement

Document Submission & Verification

Physical Verification Process

Credit Assessment Analysis

Risk Classification

Automated Amount Routing

Tier 5: HO Committee — Head Office Committee Review
Tier 4: Zonal Manager — Zonal Level Review
Tier 3: Regional Manager — Regional Level Review
Tier 2: Area Supervisor — Area Level Review
Tier 1: BM Authority — Branch Manager Review

Final Approval Process

Pre-Disbursement Compliance Checks

All Checks Passed?

No → Address Compliance Issues → Member Resolves Issues

Yes → Fee Calculation & Collection

Savings Requirement Final Check

Balance ≥ 5% Loan Amount?

No → Member Deposits Shortfall

Yes → Loan Account Creation

Disbursement Processing

**2.3.7 Pre-Disbursement Compliance Checks**

Before the loan is disbursed, the ERP must execute and validate the following compliance checks:

**A. Member Status Verification**
1. Member remains **active.**
2. No suspension, blacklist, or administrative hold.
3. Member continues attending center meetings regularly.

**B. Savings Compliance Check (Mandatory)**
1. Compulsory savings account is active.
2. Minimum required savings balance is available (as per product rules).
3. All weekly/monthly compulsory savings deposits are up to date.
4. No pending savings discrepancies.
5. No compulsory savings withdrawn during the loan process.
6. Savings ledger must match branch cashier book & ERP.

If these conditions are not met → **system blocks disbursement**.

**C. Arrear & Repayment Discipline Check**
1. Member has no arrears on previous loans.
2. No PAR cases or previous overdue issues.
3. Loan cycle advancement rules satisfied.

**D. Verification & Documentation Check**
1. Physical verification results approved.
2. All required documents uploaded and validated:
    ○ NID
    ○ Guarantor documents
    ○ Business verification forms
    ○ PKSF forms (if applicable)
3. Loan purpose validated as productive and compliant.
4. Multiple borrowing screening completed.

**E. Approval Chain Completion**
1. BM approval
2. Area approval (if required)
3. Regional approval (if product amount exceeds area limit)
4. Zonal approval (if required)
5. HO approval (for highest tiers or SME loans)

ERP enforces approval hierarchy automatically.

**F. Fee Calculation & Collection (Mandatory Loan Fee Section)**
The ERP must calculate, apply, and record all loan-related fees based on product configuration.
1. Fee Types
    ● Loan processing fee
    ● Passbook fee (if new)
    ● Insurance premium (if applicable)
    ● VAT or regulatory charges (as per MRA/PKSF rules)

2. Fee Calculation Rules
Fees must be calculated by the Unified Loan Rule Engine based on:
    ● Loan amount

- Loan product
- Tenure
- Cycle
- Member risk classification
- PKSF program rules

3. Fee Timing (IMPORTANT)
Fees must be applied:
- AFTER final loan approval
- BEFORE disbursement
- Never earlier.

4. Loan Security Fund (LSF)
A mandatory fund collected from the borrower during loan disbursement.

The LSF is calculated as:

LSF = Disbursed Loan Amount × 0.75%

**System Requirements:**
- ERP must calculate LSF automatically during pre-disbursement.
- LSF must not be deducted from the disbursed cash amount.
- LSF must be shown in the fees voucher and member receipt.
- ERP must maintain LSF balance for each borrower in a separate ledger.
- LSF is refundable according to Shakti's policy (e.g., after loan closure).

5. Fee Accounting Requirements
The system must generate:
- Fee ledger entries
- Member fee receipt
- Cashier book entry
- Audit trail for fee calculations
- Fee breakdown in disbursement voucher

6. Exceptions / Waivers
If a fee waiver is permitted:
- Must require higher authority approval
- Must include digital justification
- Must be logged for audit

**G. Final System Checks**
1. Loan amount available in branch vault
2. All checklist items passed
3. BM & accountant digitally sign off
4. ERP unlocks "Disbursement" button
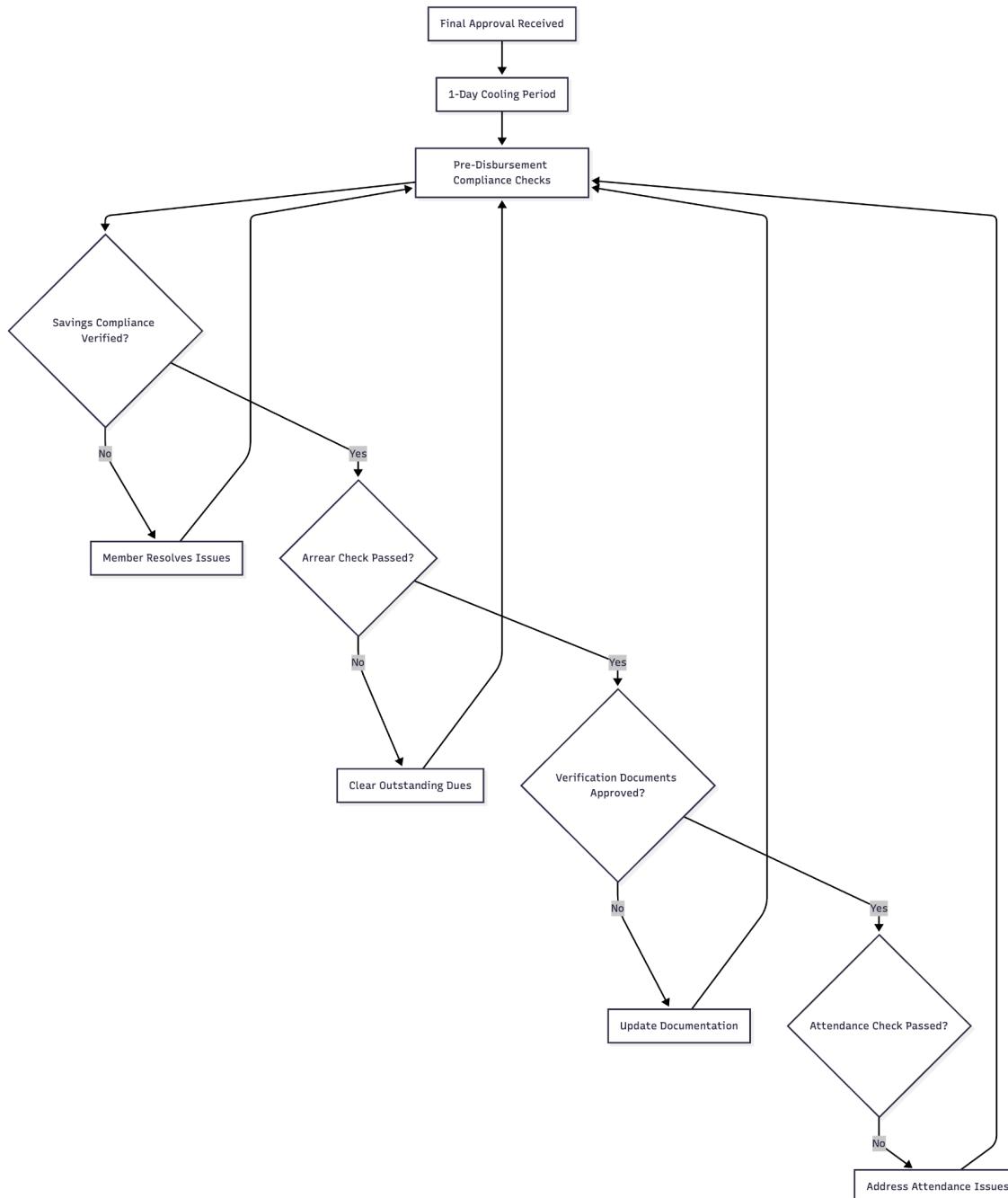
**H. Disbursement Authorization**
Once all checks pass:
- ERP creates loan account
- Installment schedule generated
- Disbursement receipt generated
- Member signs
- System status → **Loan Active**
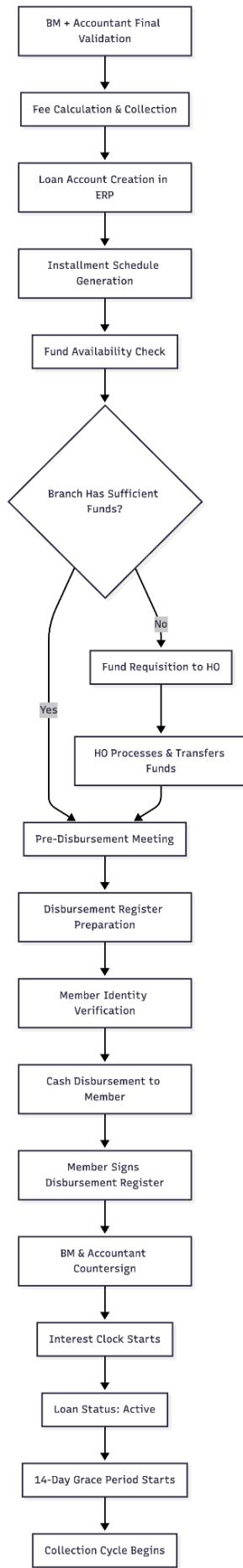
### 2.3.8 Loan Disbursement

1. Branch-Based Disbursement
   - For all loans.
2. Post-Disbursement System Actions:
   - Loan account creation
   - Installment schedule generation
   - Member receipt generation
   - SMS notification (if applicable)
   - Loan status → Active

```
                        ┌──────────────────────┐
                        │ Final Approval Received │
                        └──────────────────────┘
                                   │
                        ┌──────────────────────┐
                        │   1-Day Cooling Period  │
                        └──────────────────────┘
                                   │
                        ┌──────────────────────┐
                        │   Pre-Disbursement     │
                        │   Compliance Checks    │
                        └──────────────────────┘
```

- Savings Compliance Verified?
  - No → Member Resolves Issues
  - Yes → Arrear Check Passed?
    - No → Clear Outstanding Dues
    - Yes → Verification Documents Approved?
      - No → Update Documentation
      - Yes → Attendance Check Passed?
        - No → Address Attendance Issues

```
┌─────────────────────────┐
│  BM + Accountant Final   │
│       Validation         │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│ Fee Calculation & Collection │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Loan Account Creation in │
│           ERP            │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Installment Schedule    │
│       Generation         │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Fund Availability Check │
└─────────────────────────┘
             │
             ▼
          ◇ Branch Has Sufficient
            Funds? ◇
       Yes │         │ No
           │         ▼
           │   ┌──────────────────────┐
           │   │ Fund Requisition to HO │
           │   └──────────────────────┘
           │              │
           │              ▼
           │   ┌──────────────────────┐
           │   │  HO Processes & Transfers │
           │   │         Funds          │
           │   └──────────────────────┘
           ▼              │
┌─────────────────────────┐
│  Pre-Disbursement Meeting │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Disbursement Register   │
│       Preparation        │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│    Member Identity       │
│      Verification        │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│   Cash Disbursement to   │
│        Member            │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│    Member Signs          │
│  Disbursement Register   │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│    BM & Accountant       │
│       Countersign        │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│   Interest Clock Starts  │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│   Loan Status: Active    │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│ 14-Day Grace Period Starts │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Collection Cycle Begins │
└─────────────────────────┘
```

### 2.3.9 Repayment Lifecycle
**A. Installment Collection**
- Weekly/Monthly (Jagoron, WASH)
- Weekly/Monthly (Agrosor/MC)
- Monthly (SME)

**B. Branch-Level Reconciliation**
- MFO submits cash
- Accountant verifies physical vs ERP
- BM approves daily reconciliation

**C. Portfolio Monitoring**
ERP automatically updates:
- Arrear amount
- PAR (1 day+, PAR30, PAR60)
- Alerts for overdue cases

### 2.3.10 Loan Renewal, Top-Up & Cycle Management
Eligibility for Renewal:
- Full repayment of previous loan
- Savings consistency
- Good center attendance
- Positive verification
- Group & center endorsement

Cycle Management Rules:
- Cycle increments defined in Loan Rule Engine
- Higher cycles may require deeper verification
- Larger loan ceilings unlock on cycle growth
- ERP blocks cycle skipping unless approved

Top-Up Loans:
- Allowed only under specific conditions
- Requires verification of loan utilization

### 2.3.11 Loan Rejection & Exception Handling
Loan Rejection Reasons:
- Failed business verification
- Unstable income
- Poor repayment history
- Incomplete documents
- Group or center objection
- High-risk classification
- Savings inconsistency
- Multiple borrowing risk

Exception Handling:
- Temporary hold
- Correction of mismatched info
- Higher-level override (logged with reason)
- Fraud investigation triggers

### 2.3.12 Unified Loan Rule Engine (Configurable Loan Product Framework)

The Loan Rule Engine allows Shakti Foundation to dynamically create, modify, and manage loan products without system-level redeployment.

**A. Configurable Product Parameters**

- Loan ceiling
- Loan tenure
- Installment frequency
- Service charge rate
- Cycle limits
- Minimum savings balance
- Verification depth
- Required KYC documents
- Business eligibility rules
- Guarantor requirements
- PKSF compliance rules
- Approval hierarchy per product
- Risk scoring parameters

**B. Configurable Approval Matrix**

The system must support:

- BM-level limits
- Area-level limits
- Region-level limits
- Zonal-level limits
- HO/Credit Committee thresholds
- PKSF-specific approval paths

**C. Configurable Verification Template**

Shakti can select required verifications per product:

- Household visit
- Business visit
- Guarantor visit
- Income cross-check
- Asset evaluation
- Community reference
- PKSF-specific formats

**D. Savings–Loan Relationship Engine**

Rules configurable by product:

- Minimum balance
- Minimum savings weeks
- Maximum missed savings allowed
- Shortfall logic

**E. Automated Rejection & Exception Rules**

- High-risk auto-rejection
- Missing documents auto-block
- Savings irregularity warnings
- Exception escalation paths

**F. Add/Edit/Delete Loan Products**

Authorized Shakti staff can:

- Create new loan categories
- Clone existing loan products
- Modify parameters
- Disable outdated products
- Update ceilings instantly
- Change approval matrices

**G. Optional Loan Rescheduling / Moratorium Capability (Regulatory Trigger Only)**

The ERP must include an optional loan rescheduling feature that can be activated only when PKSF, MRA, or Head Office issues an official directive (e.g., disaster relief, pandemic restructuring, emergency moratorium). This feature is disabled during normal operations and does not form part of the standard loan approval or collection cycle.
Once activated, the system should allow:

- Installment deferment
- Tenure extension
- New repayment schedule generation
- PAR adjustment according to regulatory rules
- Provisioning recalculation
- Proper audit trail and compliance reporting

**H. Enforcement in ERP**

All loan processing must follow the configured rules; manual override allowed only with digitally logged justification.

**Special Approval Cases:**

- Second loan exceeding the previous by 25% requires Program Head approval
- High-risk applications need additional verification
- Policy exceptions require committee approval

# 2.4 Loan Repayment & Collection Management (Post-Disbursement Operations for All Loan Products)

Loan Repayment & Collection Management governs how Shakti Foundation monitors, collects, tracks, classifies, and manages loan repayments after disbursement. This process ensures strong portfolio discipline, compliance with PKSF/MRA rules, and real-time monitoring through the ERP.

### 2.4.1 Repayment Scheduling & Collection Process

The repayment structure varies depending on loan product, tenure, and Shakti policies.
**A. Installment Frequency (Product-Specific)**

- **Weekly**: Jagoron, WASH, PKSF basic loans
- **Fortnightly / Bi-Weekly**: Agrosor/ME, selected enterprise loans
- **Monthly**: SME, larger enterprise loans

(At this moment maximum installment frequency is in Weekly and Monthly basis)

**B. Collection Channels**

1. **Center Meeting Collection (Primary Method)**
   - MFO collects installment during scheduled center meetings
   - Member signs center collection sheet
2. **Field Visit Collection (For Absent Members)**
   - Conducted when member misses center meeting
   - Managed with BM approval

3. **Branch Counter Collection (Special Case)**
   ○ Member may deposit directly at branch (rare cases)

**C. Receipt Generation**
- ERP must generate digital receipts instantly
- Member receives SMS confirmation
- MFO gets printed or digital copy

**D. Real-Time ERP Updates**
- After each collection, system updates:
   ○ Member loan balance
   ○ Center collection status
   ○ Branch collection dashboard
   ○ Daily cash book

**E. Daily Collection Reconciliation**
- MFO submits physical cash
- Accountant verifies against system entries
- BM signs daily reconciliation

## 2.4.2 Arrears Management (Missed Installment Handling)
If a member fails to pay on the due date:
**A. System Auto-Flags Arrear**
- Arrear amount
- Days past due
- Updated PAR counters

**B. Automated Notifications**
- SMS reminders
- Call list for MFO
- Alerts for center-level discussion

**C. Field Follow-Up**
- MFO performs personal visit
- Attempts recovery
- Documents reason for arrear

**D. Center-Level Support**
- Center members encouraged to support overdue member
- Peer monitoring applied

**E. Escalation Rules (Product-Specific)**
If arrears persist:
- BM intervention
- Rescheduling evaluation (if allowed)
- Recommendation for classification

## 2.4.3 Portfolio Quality Metrics (System Calculations)
The ERP must calculate and display real-time portfolio health indicators.
**A. PAR (Portfolio at Risk)**
- **PAR1** = Loans overdue >1 day
- **PAR30** = Overdue >30 days

- **PAR60** = Overdue >60 days
- **PAR90** = Overdue >90 days

Formula:
PAR = (Overdue Outstanding Principal / Total Outstanding Portfolio) x 100%

**B. OTR (On-Time Realization)**
Measures collection timeliness:
OTR = (Installments Collected on Time / Total Installments Due) × 100%

**C. Collection Efficiency**
Collection Efficiency = (Actual Collections / Expected Collections) × 100%

**D. Aging Analysis**
System categorizes overdue amounts into buckets:
- 0 Days
- 1–30 days
- 31–180 days
- 181–365 days
- 365 days

Formula:
(Overdue Outstanding Principal / Installment Size) x Loan Repayment Type Days (7 or 30)

### 2.4.4 Loan Overdue Classification & Recovery Workflow
**A. Overdue Classification Categories**
- **0 Days:** Standard
- **1–30 Days:** Watchful
- **31–180 Days:** Substandard
- **181–365 Days:** Doubtful
- **>365 Days:** Bad/Loss

**B. Automated System Actions by Category**
**1. Watchful (1–30 days)**
- SMS reminders
- Center-level follow-up
- MFO field visit
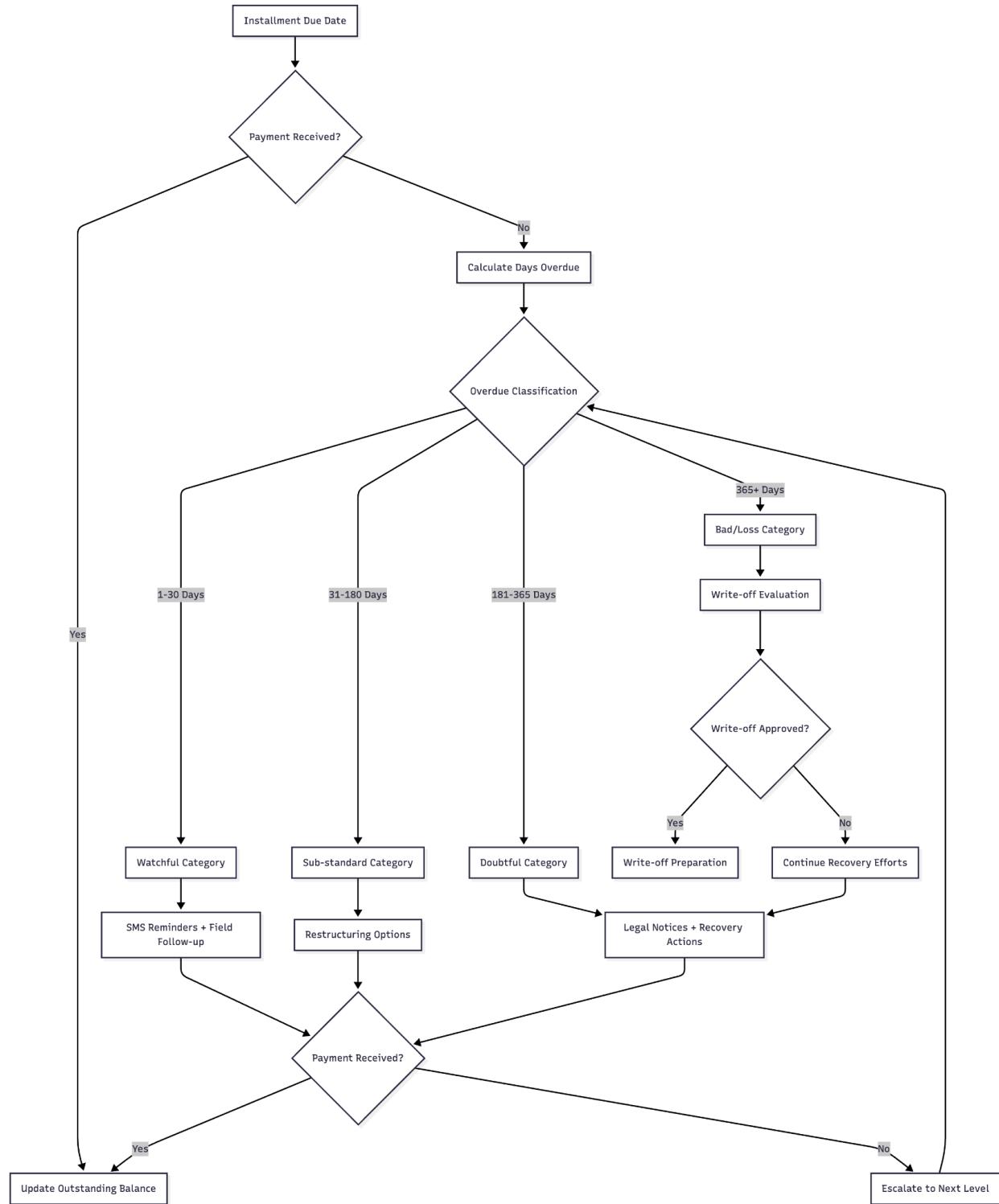
**2. Sub-Standard (31–180 days)**
- BM + MFO field visit
- Intensified monitoring

**3. Doubtful (181–365 days)**
- Legal notices
- Recovery pressure
- Branch + regional oversight

**4. Bad/Loss (>365 days)**
- Write-off preparation
- Provisioning impact
- External recovery agency (if used)
- Weekly reporting to HO

## 2.4.5 Loan Loss Provisioning (LLP Rules)

### A. System Auto-Provisions Loan Loss Based on Aging

Provisioning rules are not part of the MFP operational manual but are required under PKSF/MRA regulations and Shakti Foundation's accounting policy.The ERP must automatically calculate loan loss provisioning using the following standard formula:

- LLP = Outstanding Principal × Provision Percentage

**Classification-Based Provision Rates:**

| Loan Category | Days Overdue | Provision Rate |
|---|---|---|
| Standard | 0 Days | 1% |
| Watchful | 1–30 Days | 5% |
| Sub-standard | 31–180 Days | 25% |
| Doubtful | 181–365 Days | 75% |
| Bad/Loss | >365 Days | 100% |

Provisioning must update:
- General Ledger (GL)
- Branch/HO reports
- PAR reports
- Write-off recommendations

**B. Real-Time Accounting Updates**
- Provisioning ledger adjustments
- Portfolio-quality dashboard updates

**C. Reporting**
System must generate:
- Provisioning reports
- PKSF/MRA compliance reports
- Write-off eligibility reports

**2.4.6 Litigation & Recovery Actions (For long-term delinquencies)**
**A. Legal Notices**
Automated notice generation for:
- 181+ day overdue
- High-value loans

**B. Recovery Team Assignment**
- Recovery officers assigned
- Actions logged in ERP

**C. Final Settlement or Write-Off**
- After 365+ days + 730 days as per MRA
- HO approval required
- Provisioning fully applied

**2.4.7 Reporting & Dashboards (System Requirements)**
ERP must provide:

- Center-wise collection reports
- Branch-level collection dashboard
- Arrear reports
- PAR/OTR dashboards
- Aging summary charts
- MFO performance metrics
- Region/Zonal summary

## 2.5 – CENTER & GROUP MANAGEMENT

Centers and Groups are the foundational operating units of Shakti Foundation's microfinance program. All core operations—admission, savings, loan proposal review, collection, and discipline monitoring—take place through structured center and group workflows.

### 2.5.1 Center Creation & Operational Structure

**A. Center Definition**

A Center is a collection of 5–6 groups (depending on geography and membership concentration) operating under a Branch. Each center has:
- A unique center ID
- A fixed meeting place
- A scheduled meeting day (weekly or monthly)
- A designated MFO (Microfinance Officer) responsible for operations
- Assigned groups and their members

**B. Center Creation Rules**
- Created by Branch Manager with approval from Area Supervisor
- Created based on geographic clustering of eligible members
- Must ensure travel feasibility, safety, and operational efficiency
- Centers must not exceed maximum member capacity defined by Shakti policy

**C. Center Schedules (Updated Shakti Practice)**

Centers may operate on:
- Weekly Meeting Schedule (traditional model)
- Monthly Meeting (updated model implemented)

System Requirements:
- ERP must support weekly and monthly center schedules
- Center frequency must be configurable at center-level
- Collection cycle auto-adjusts based on frequency
- Loan repayment schedule must align with center frequency

**D. Center Meeting Workflow**
- MFO arrives at meeting location
- Takes attendance
- Collects savings and loan installments
- Resolves member issues
- Reviews new loan proposals
- Provides reporting to BM

### 2.5.2 Group Creation & Member Assignment

**A. Group Definition**

A Group is the smallest operational unit under a Center, consisting of members living in close proximity. Groups ensure:
- Peer monitoring

- Social collateral
- Discipline enforcement
- Support during loan repayment
- Screening of loan requests

**B. Group Formation Rules (Shakti Manual Aligned)**
- No concept of "units"; only groups under centers
- Group size: Maximum 5 members
- Group members must reside near each other
- New groups may be formed when:
  - New members join and existing groups are at max capacity
  - Branch is expanding geographically
  - Operational need arises based on BM/MFO assessment

**C. Member Assignment Rules**
- Member is assigned to a group at the time of admission
- Member cannot apply for a loan unless assigned to a group
- Group endorsement is required for new loan applications
- A member may be transferred between groups due to:
  - Relocation
  - Group disciplinary issues
  - Operational restructuring

**D. Group Responsibilities**
- Attendance compliance
- Savings discipline
- Loan screening & preliminary recommendation
- Repayment cooperation
- Peer pressure to reduce delinquency
- Escalation of risk cases to center/MFO

### 2.5.3 Center Meeting Operations
**A. Attendance Tracking**
- Mandatory attendance for all members
- MFO records attendance
- ERP calculates:
  - Attendance percentage
  - Irregular attendance flags
  - Member disciplinary indicators

**B. Savings Collection**
- Members deposit weekly or monthly compulsory savings
- System posts savings in real time
- Savings irregularities flagged automatically

**C. Loan Installment Collection**
- Repayment collected during the meeting on center day
- ERP updates:
  - PAR
  - Aging
  - Daily cash records

○ Member ledger

**D. Loan Proposal Review**
- New loan applications must be:
  - ○ Discussed in group
  - ○ Supported by group
  - ○ Endorsed in center meeting
  - ○ Recorded by MFO

**E. Issue Resolution**
- Member complaints
- Discrepancy in savings/repayment
- KYC updates
- Disciplinary follow-ups

**F. End-of-Meeting Reporting**
MFO reports to BM:
- Collection summary
- Attendance summary
- Arrear list
- New loan proposals
- Group issues

## 2.5.4 Center & Group Performance Metrics
The ERP must maintain KPIs to assess portfolio quality and group discipline.
**A. Group-Level Metrics**
- Member attendance rate
- Savings regularity
- Loan repayment on-time percentage
- Group PAR
- Peer-pressure compliance
- Loan screening quality

**B. Center-Level Metrics**
- Center attendance %
- Collection efficiency
- Center arrears
- Center PAR (PAR1/PAR30/PAR60/PAR90)
- Number of delinquent groups
- Center day compliance

**C. Automated Alerts**
- High absenteeism
- Group-level arrears
- Center not meeting on scheduled day
- Irregular savings
- Increasing PAR trend

## 2.5.5 System Requirements for Center & Group Module
The ERP must enable:
1. Center creation, edit, deactivate
2. Assigning centers to MFOs

3. Group creation under centers
4. Automatic center schedule generation (weekly/monthly)
5. Member-to-group assignment
6. Center attendance tracking
7. Saving & repayment collection workflows
8. Group-level loan proposal endorsement
9. Center-level digital meeting registers
10. Performance dashboards

## 2.6 Branch Operations & MFO Daily Workflow

Branch operations ensure that the microfinance activities of Shakti Foundation run efficiently, systematically, and with full operational discipline. The ERP must support branch-level daily routines, meeting schedules, cash management, monitoring dashboards, and MFO activity tracking.

### 2.6.1 Branch Office Structure & Responsibilities
Each Branch includes:
**A. Branch Manager (BM)**
- Oversees all branch operations
- Verifies daily collections and savings
- Approves loan proposals within BM limit
- Ensures center meetings run properly
- Approves daily cash book
- Handles arrears follow-up with MFOs
- Ensures compliance with PKSF/MRA rules

**B. Accountant / Cashier**
- Maintains daily cash book
- Records all branch-level transactions
- Verifies MFO cash deposits
- Manages vault cash
- Prepares fund requisition
- Ensures financial records match ERP data

**C. Microfinance Officers (MFOs)**
- Conduct center meetings
- Collect savings & loan installments
- Record attendance
- Follow up on arrears
- Identify new prospects and loan needs
- Conduct field visits
- Submit daily activity report to BM

**D. Support Staff**
- Document management
- Entry & exit registers
- Administrative assistance

### 2.6.2 Daily Branch Workflow
This describes the workday at a Shakti branch.
**A. Morning Routine**
1. MFOs check center schedule (ERP auto-generates daily route plan)
2. BM reviews:

- Previous day's collection summary
- Arrear report
- Portfolio status

3. Accountant verifies:
    - Cash in hand
    - Pending adjustments
    - System vs physical reconciliation

## B. Field Operations (MFO Workflow)
MFO begins field work following ERP route plan:
1. Attend center meetings
2. Take attendance
3. Collect savings & repayments
4. Enter collections in ERP (online/offline sync)
5. Conduct field verifications
6. Meet overdue members
7. Collect KYC updates
8. Return to branch with cash

## C. Afternoon Routine (Back at Branch)
1. MFO submits cash to Accountant
2. Accountant verifies:
    - Member-wise collection slips
    - Center sheet
    - ERP entries
3. BM signs off daily reconciliation
4. BM reviews:
    - Today's arrears
    - Center irregularities
    - Loan applications
    - Verification status

## 2.6.3 Cash Management & Fund Flow
### A. MFO Cash Handling
- Must deposit all field collections the same day
- No overnight cash retention allowed (unless exceptional)
- ERP must disallow pending unsubmitted cash
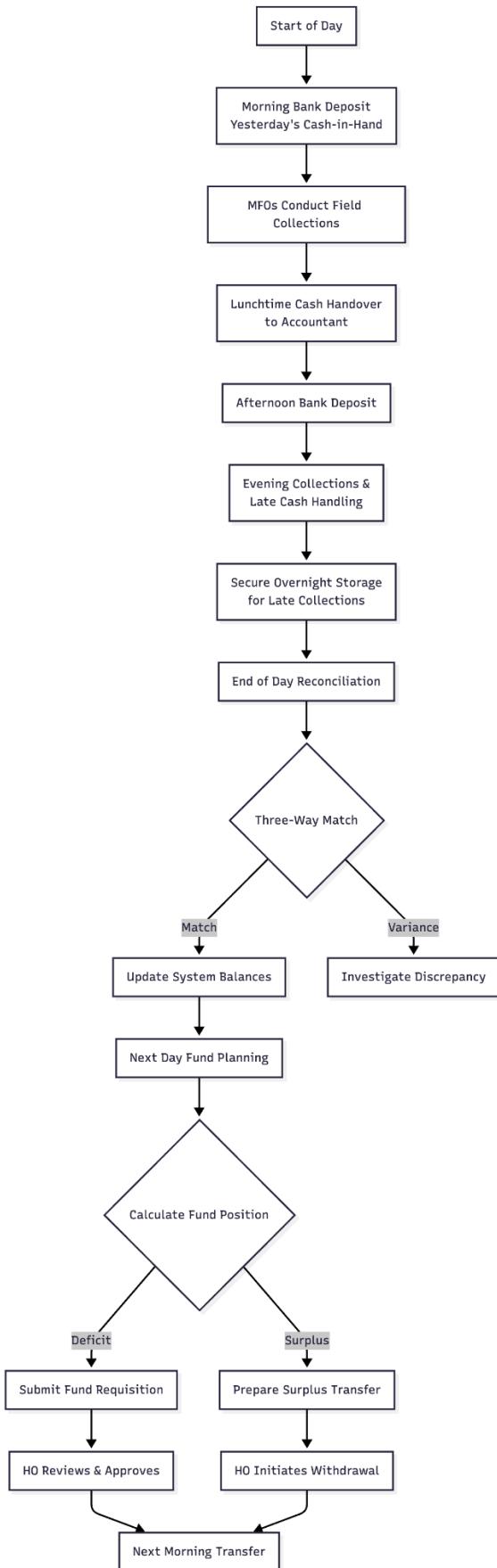
### B. Accountant Vault Management
- Records opening cash balance
- Records MFO deposits
- Manages disbursement cash
- Prepares daily cash statement
- Ensures ERP ledger equals physical cash

### C. BM Oversight
- Approves:
    - Disbursements
    - Refunds
    - Adjustments
    - End-of-day cashbook
- Ensures cashbook = ERP = vault cash

```
                        ┌─────────────────┐
                        │   Start of Day  │
                        └─────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │    Morning Bank Deposit    │
                    │   Yesterday's Cash-in-Hand │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │     MFOs Conduct Field     │
                    │        Collections         │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │   Lunchtime Cash Handover  │
                    │        to Accountant       │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │    Afternoon Bank Deposit  │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │    Evening Collections &   │
                    │      Late Cash Handling    │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │   Secure Overnight Storage │
                    │     for Late Collections   │
                    └───────────────────────────┘
                                 │
                                 ▼
                    ┌───────────────────────────┐
                    │    End of Day Reconciliation│
                    └───────────────────────────┘
                                 │
                                 ▼
                              ◇ Three-Way Match ◇
                             /                    \
                         Match                   Variance
                           │                        │
                           ▼                        ▼
              ┌───────────────────────┐   ┌───────────────────────┐
              │ Update System Balances│   │ Investigate Discrepancy│
              └───────────────────────┘   └───────────────────────┘
                           │
                           ▼
              ┌───────────────────────┐
              │  Next Day Fund Planning│
              └───────────────────────┘
                           │
                           ▼
                    ◇ Calculate Fund Position ◇
                   /                            \
               Deficit                        Surplus
                 │                               │
                 ▼                               ▼
        ┌─────────────────────┐      ┌───────────────────────┐
        │Submit Fund Requisition│    │ Prepare Surplus Transfer│
        └─────────────────────┘      └───────────────────────┘
                 │                               │
                 ▼                               ▼
        ┌─────────────────────┐      ┌───────────────────────┐
        │ HO Reviews & Approves │    │  HO Initiates Withdrawal│
        └─────────────────────┘      └───────────────────────┘
                 │                               │
                  \                             /
                   ▼                           ▼
                    ┌───────────────────────┐
                    │  Next Morning Transfer │
                    └───────────────────────┘
```

47

### 2.6.4 Branch-Level Loan Processing
**A. Loan Application Handling**
- MFO submits verified documents
- BM validates information
- BM approves within limit
- If above BM limit → forwarded to Area

**B. Disbursement Preparation**
- BM checks pre-disbursement compliance checklist
- Accountant prepares cash or digital disbursement
- BM confirms loan schedule & receipts

**C. Post-Disbursement Monitoring**
- BM monitors:
  - First installment attendance
  - Center performance
  - MFO follow-up quality

### 2.6.5 Arrear & PAR Monitoring (Branch-Level)
**A. Daily Arrear Summary**
ERP must generate:
- Member-wise overdue list
- Center-wise arrear list
- MFO-wise arrear summary
- Branch-level PAR % (PAR1, PAR30, PAR60, PAR90)

**B. BM Arrear Responsibilities**
- Review arrear list with MFO daily
- Assign MFOs for field follow-up
- Ensure proper escalation to Area if needed

**C. MFO Arrear Responsibilities**
- Conduct field visits
- Counsel members
- Submit arrear follow-up results in ERP
- Update recovery attempts

### 2.6.6 Branch Reporting Requirements
ERP must produce:
Daily Reports
- Collection summary
- Cashbook
- Savings ledger updates
- Loan repayment posting
- Arrear summary
- Center attendance report

Weekly Reports
- Center irregularities
- Loan verification progress

- Portfolio quality (PAR/OTR)

Monthly Reports
- BM performance dashboard
- MFO performance dashboard
- Loan approval vs disbursement
- Write-off trend
- Savings compliance

2.6.7 System Requirements for Branch Operations
ERP must support:
1. MFO route planning
2. Center-day auto calendar
3. Offline mode for field collections
4. Digital cashbook
5. Digital disbursement register
6. Auto PAR calculation
7. Daily attendance tracking
8. GPS tagging for field visits (if implemented)
9. Branch performance dashboards
10. Automated fund requisition generation
11. Secure access control

## 2.7 – COMPLIANCE & REGULATORY OPERATIONS
*(Fully aligned with PKSF, MRA, and Shakti Foundation requirements)*
This section ensures the ERP complies with all legal, regulatory, audit, and operational safeguards required for microfinance operations in Bangladesh.

### 2.7.1 Overview
Compliance & Regulatory Operations ensure Shakti Foundation adheres to:
- PKSF program guidelines
- MRA Microcredit Regulatory Authority rules
- Internal audit and governance requirements
- Mandatory reporting obligations
- KYC & AML standards
- Anti-fraud controls
- Data integrity & audit trails
- Role-based user access

This module ensures that all financial transactions, manual interventions, and user actions are transparent, validated, logged, and reportable.

### 2.7.2 KYC, AML & Member Verification Requirements
**A. Mandatory KYC Documents**
ERP must enforce capturing and storing:
- National ID (photo + number)
- Member photograph
- Address verification
- Nominee details (with NID)
- Fingerprint/biometric (if applicable)
- Contact/mobile verification

**B. KYC Validation Rules**
- No member can be approved without required KYC
- Duplicate NID must be blocked
- System must prevent creation of fake or duplicate profiles

**C. AML (Anti-Money Laundering) Checks**
ERP must support:
- Suspicious transaction detection
- Large cash deposit anomaly alerts
- Multiple simultaneous loan checks
- Unusual savings withdrawal pattern detection
- NID duplication alerts

## 2.7.3 Audit Trail & Transaction Logging
**A. Full Audit Trails Required For:**
- Member creation/edit
- Savings deposits
- Loan application edits
- Loan approval decisions
- Disbursement entries
- Repayment postings
- Write-off actions
- Fee adjustments
- User login & session logs

**B. What Audit Trail Must Capture**
Each event must include:
- Who performed the action
- Date & time of action
- Previous value
- New value
- Device/IP (if applicable)
- Branch assignment
- Reason (mandatory for overrides)

**C. Immutable Logs**
- Audit logs cannot be edited or deleted
- Only HQ Compliance Team can export audit logs

## 2.7.4 Maker–Checker Controls (4-Eyes Principle)
Microfinance regulatory standards require maker-checker validation for all critical operations.

**A. Must-Have Maker–Checker Items**

| Operation | Maker | Checker |
|---|---|---|
| Member admission | MFO | BM |
| Savings withdrawal | Accountant | BM |
| Loan application | MFO | BM/Area/Region |

| Loan approval | BM | Area/Region/HO |
|---|---|---|
| Disbursement | Accountant | BM |
| Write-off initiation | BM | HO |
| Fee adjustments | BM | Compliance/HQ |

**B. ERP Enforcement**
System must block:
- Auto-approval
- Auto-disbursement
- Any action missing checker validation

## 2.7.5 PKSF and MRA Compliance Reporting
ERP must generate and export:
**A. PKSF Reports**
- Loan product-wise performance
- Monthly progress reports
- PAR reports
- Recovery status
- Savings utilization
- Write-off summaries
- Area/region performance indicators

**B. MRA Reporting (Mandatory)**
- MRA Form–1 (Loan & Savings Summary)
- MRA Form–2 (Portfolio Quality)
- MRA Form–3 (Operational & Financial Indicators)
- MRA Write-Off Statement
- Annual regulatory compliance reports

**C. Submission Format**
- PDF export
- Excel export
- CSV
- Digital signature ready

## 2.7.6 Compliance Flags & Risk-Based Alerts
ERP must auto-generate alerts:
**A. Member-Level Alerts**
- High arrears (overdue >30 days)
- Frequent absence
- KYC mismatch
- Loan cycling without repayment
- High missed savings deposits

**B. Group/Center Alerts**
- Low attendance center
- Persistent delinquency center

- Abnormal savings or repayment reductions

**C. MFO Alerts**
- Low collection efficiency
- High unresolved pending adjustments
- Deviation from route plan
- Frequent offline sync issues

**D. Branch Alerts**
- Cash mismatch
- Abnormally high rescheduled loans (if allowed)
- Sudden spike in new membership
- Sudden drop in savings collection

## 2.7.7 Role-Based Access Control (RBAC)
**A. Role Categories**
- MFO
- Branch Accountant
- Branch Manager

- Area Supervisor
- Regional Coordinator
- Zonal Manager
- Head Office User
- Compliance Officer
- System Administrator

**B. Access Rules**
- MFO cannot view or edit other branch data
- BM can view and approve branch-level operations
- HQ has read/write access across all branches
- Compliance users have access to audit logs only
- System Admin cannot edit financial records
- Super Admin has configuration access only

## 2.7.8 Exception Handling & Override Control
**A. Exceptions Requiring Approval**
- Editing loan amounts
- Changing disbursement dates
- Adjusting savings
- Correcting repayment errors
- Modifying KYC post-loan
- Editing write-off entries

**B. System Requirements**
- Override must require reason entry
- Capture supervisor approval
- Log override in audit trail

## 2.7.9 Fraud Prevention & Data Integrity Rules
ERP must support:
**A. Real-Time Fraud Detection**

- Duplicate borrower detection
- Fake center/meeting detection
- Ghost group detection
- Unusual repayment patterns
- Multiple loans in different branches
- Loan stacking alerts

**B. Data Integrity Controls**
- Transaction locking
- Prevention of backdated postings without approval
- Auto reconciliation checks
- Prevention of negative balance conditions

## 2.8 ACCOUNTING & FINANCIAL CONTROLS

Accounting & Financial Controls ensure that every operational transaction—savings, loan, disbursement, repayment, provisioning, fees—flows into a transparent, auditable, and compliant financial ledger structure. This section defines how the ERP integrates front-office operations with back-office accounting.

### 2.8.1 Chart of Accounts (COA)

The ERP must maintain a standardized Chart of Accounts covering:

**A. Asset Accounts**
- Cash in Vault
- Cash in Transit
- Member Loans Outstanding
- Interest Receivable
- LSF Fund (0.75% deposits by borrowers)
- Savings Accounts (Compulsory/Voluntary)

**B. Liability Accounts**
- Member Savings Liability
- LSF Liability
- NGO Fund Payable
- PKSF Fund Payable

**C. Income Accounts**
- Service Charge (Interest)
- Loan Processing Fee
- Revenue Stamp Fee
- Health/Insurance Fee
- Penalty Income (if applied)

**D. Expense Accounts**
- LLP/Provisioning Expense
- Write-Off Loss
- Operational Expenses (non-microfinance)

ERP must map every transaction (loan, savings, fee, provisioning) to the appropriate COA ledger.

### 2.8.2 General Ledger (GL) Integration

All front-end operations (member transactions) must be automatically posted to the General Ledger.

**A. ERP → GL Mapping is Mandatory For**
- Loan disbursement

- Loan repayment
- Savings deposit
- Savings withdrawal
- Penalty posting
- Fee collection
- Provision posting (LLP)
- Write-off posting
- LSF collection
- Center-level transaction adjustments

**B. GL Posting Rules**
- Every operational entry must generate a double-entry accounting transaction
- No single-entry updates allowed
- All GL postings must include:
    - Branch
    - Center
    - MFO
    - Member
    - Voucher number
    - Narration
    - Timestamp
    - Maker-checker information

### 2.8.3 Daily Cashbook & Branch Reconciliation
**A. Daily Cashbook Includes**
- Opening cash balance
- MFO cash deposits
- Loan repayments
- Savings deposits
- Disbursement cash outflow
- Refunds
- Adjustments
- Closing balance

**B. ERP Requirements**
- Real-time sync with GL
- Prevent negative cash balance
- Prevent backdated entries without approval
- BM must approve daily closing
- Accountant cannot close cashbook without matching the ERP + vault cash

**C. Cash Mismatch Rules**
- If mismatch detected → ERP blocks closing
- System requires explanation + BM override
- Audit flag raised for HQ review

### 2.8.4 Loan Disbursement Accounting
When a loan is disbursed:
A. Debit: Member Loan Outstanding
B. Credit: Cash Account (vault) OR Bank Account
**LSF (0.75%) Accounting**
Collected from borrower → transferred to LSF liability account.

<span style="color:green">Debit: Member Loan</span>
<span style="color:green">Credit: LSF Liability</span>

**Stamp Fee**
<span style="color:green">Debit: Member Loan</span>
<span style="color:green">Credit: Stamp Duty Payable</span>

**Loan Processing Fee**
<span style="color:green">Debit: Member Loan</span>
<span style="color:green">Credit: Processing Fee Income</span>

### 2.8.5 Loan Repayment Accounting
Every installment consists of:
- Principal
- Service charge (interest)

**A. Principal Portion**
<span style="color:green">Debit: Cash in Vault / Digital Payment Channel</span>
<span style="color:green">Credit: Member Loan Outstanding</span>

**B. Interest Portion**
<span style="color:green">Debit: Cash in Vault</span>
<span style="color:green">Credit: Interest Income</span>

**Penalty (if charged)**
<span style="color:green">Debit: Cash</span>
<span style="color:green">Credit: Penalty Income</span>

### 2.8.6 Savings Accounting
**A. Savings Deposit**
<span style="color:green">Debit: Cash</span>
<span style="color:green">Credit: Savings Liability</span>

**B. Savings Withdrawal**
<span style="color:green">Debit: Savings Liability</span>
<span style="color:green">Credit: Cash</span>

**Maker–Checker:**
- Accountant = Maker
- BM = Checker

### 2.8.7 Loan Loss Provisioning (LLP / Provision Expense)
Provisioning applies based on aging:

| Category | Days | Provision % |
|---|---|---|
| Standard | 0 Days | 1% |
| Watchful | 1–30 | 5% |
| Substandard | 31–180 | 25% |

| Doubtful | 181–365 | 75% |
| --- | --- | --- |
| Bad/Loss | >365 | 100% |

Accounting Entry
Debit: Provision Expense
Credit: Provision Liability

**ERP Requirements:**
- Auto-calculate monthly LLP
- Auto-post to GL
- Auto-adjust provision when loan transitions to next category
- Provision reversal allowed only by HQ Finance

### 2.8.8 Write-Off Accounting
Write-off does NOT mean forgiven. Loan is removed from active portfolio but kept in recovery file.
**A. Write-Off Entry**
Debit: Provision Liability
Credit: Loan Write-Off Account

**B. Recovery After Write-Off**
Debit: Cash
Credit: Recovery Income (Write-Off Recovery)

**ERP must track:**
- Write-off date
- Approval authority
- Total write-off balance
- Recovery performance

### 2.8.9 Fund Requisition & Settlement (Branch → HO)
**A. When Branch Needs More Cash**
- Accountant initiates requisition
- BM approves in ERP
- HO Finance releases funds to branch bank account
- ERP updates branch fund balance

**B. ERP Must Support**
- Requisition form
- Approval workflow
- Transfer posting
- Branch cash balance update

### 2.8.10 Trial Balance, P&L, and Balance Sheet
ERP must generate:
1. Branch-level TB
2. Consolidated TB (all branches)
3. Profit & Loss
4. Balance Sheet

Trial Balance must include:
- Savings liabilities
- Loan liabilities

- LSF balances
- Provision balances
- Expense and income accounts

Export Formats:
- Excel
- PDF
- CSV

### 2.8.11 Financial Reports Required (PKSF + Internal + MRA)
ERP must generate:
- PKSF financial summaries
- Loan-wise fund utilization statements
- Expense dashboards
- Income summaries (service charge, fees)
- LSF ledger
- Provisioning reports
- Write-off register
- Fund balance by branch
- Cashbook summary
- MRA financial compliance reports

# 2.9 – MIS REPORTING & DASHBOARDS
Shakti Foundation requires a comprehensive MIS (Management Information System) to monitor branch operations, loan portfolio performance, savings compliance, arrears, PAR, staff productivity, and regulatory indicators. The ERP must provide role-based dashboards, scheduled reports, and on-demand analytics.

### 2.9.1 Role-Based Dashboards
Each user level will see data relevant to their responsibilities.
**A. MFO Dashboard**
Shows:
- Today's center schedule
- Member attendance summary
- Daily collections target vs achievement
- Loan proposal pending verifications
- Arrears list (member-wise)
- GPS route compliance (if used)
- Savings irregularities
- Performance score (collection %, center discipline, arrears reduction)
- Total monthly and yearly (fiscal year-based) target vs achievement

**B. Branch Manager Dashboard**
Shows:
- Branch PAR (PAR1, PAR30, PAR60, PAR90)
- Loan disbursement summary
- Savings collection vs target
- Daily arrears & trend
- Top 10 overdue cases
- MFO performance comparison
- Center irregularities
- Branch cashbook summary
- Current loan pipeline

- Operational discipline flags
- Total monthly and yearly (fiscal year-based) target vs achievement

**C. Area Supervisor Dashboard**
Shows:
- Branch-wise comparison (PAR, OTR, disbursement)
- Collection efficiency ranking
- At-risk centers
- High overdue groups
- Aging analysis summary
- Staff performance matrix
- Loan approval bottlenecks
- Center-day discipline heatmap
- Total monthly and yearly (fiscal year-based) target vs achievement

**D. Regional/Zonal Manager Dashboard**
Shows:
- Zone/regional portfolio performance
- Disbursement trends
- PAR trend graph
- Write-off trend
- Savings discipline
- Growth performance (new members, new centers, new groups)
- Compliance flags
- Loan utilization by product

**E. Head Office Dashboard**
Shows:
- Organization-wide outstanding portfolio
- Fund utilization (PKSF, donor funds)
- Provisioning requirement
- Loan classification ratios
- Branch health score
- High-risk locations
- Operational efficiency KPIs
- Net financial margin
- Write-off vs recovery trend
- Regulatory compliance metrics

## 2.9.2 Standard Operational MIS Reports
These reports must be downloadable in PDF, Excel, and CSV.
**A. Daily Reports**
- Daily Collection Summary
- MFO Collection Sheet
- Daily Cashbook
- Savings Ledger Update
- Loan Repayment Posting
- Disbursement Register
- Branch Arrear Report

**B. Weekly Reports**
- Center Attendance Summary

- Center Irregularity Report
- Loan Pipeline Review
- MFO Productivity Report
- Area-wise PAR Summary
- Group-Level Savings Irregularity Report

**C. Monthly Reports**
Must match Shakti + PKSF formats:
- Monthly Disbursement Summary
- Monthly Recovery & PAR Report
- Monthly Savings Statement
- Monthly Write-off Summary
- Monthly Loan Classification Sheet
- Monthly Ledger Summary
- Provisioning Requirement Report
- Loan Product Performance Report
- Member Growth Report (new vs dropout)
- Operational Efficiency Report

### 2.9.3 Regulatory & Compliance Reporting (PKSF + MRA)
**A. PKSF Reporting**
System must auto-generate PKSF:
- Loan Performance Report
- Component-wise Fund Utilization
- Savings Mobilization Report
- PAR Report
- Write-Off & Provisioning Report
- Project-wise disbursement status

**B. MRA Compliance Reports**
- MRA Form–1 (Loan & Savings Summary)
- MRA Form–2 (Portfolio Quality)
- MRA Form–3 (Operational & Financial Indicators)
- MRA Write-Off Statement
- MRA Annual Report Datasets

Reports must be exportable in **CSV/Excel** for direct MRA submission.

### 2.9.4 Specialized Portfolio Analytics
ERP should provide tools for deep insight:
**A. Aging Analysis**
- 1–30 days
- 31–180 days
- 181–365 days
- 365+ days
- Graph on overdue growth trend

**B. Loan Utilization Checks** (If applicable to Shakti)
- Loan purpose vs actual use
- Follow-up visit log
- Loan deviation report

**C. Staff Productivity**
- Loans per MFO
- Collection per MFO
- Attendance compliance
- Arrear follow-up success rate

**D. Center Performance Scoring**
- Attendance score
- Savings regularity
- PAR score
- Loan turnover rate
- Overall center health index

## 2.9.5 Financial MIS Reports
These tie directly with Section 2.8 (Accounting).
**A. Financial Statements**
- Branch Trial Balance
- Consolidated Trial Balance
- Income Statement
- Balance Sheet
- Cash Flow Statement

**B. Ledger Book Reports**
- Savings Ledger
- Loan Ledger
- Provision Ledger
- LSF Ledger
- Write-Off Ledger
- Fee Income Ledger
- Stamp Duty Ledger

**C. Fund Utilization**
- PKSF component utilization
- Branch-level fund position
- Exposure per portfolio segment

## 2.9.6 Alerts, Notifications & Exception Reports
System must generate real-time alerts:
**A. Risk Alerts**
- High PAR threshold
- At-risk center
- Rapid delinquency growth
- Member missing 2 consecutive meetings

**B. Operational Alerts**
- Cash mismatch
- Backdated entry attempt
- Over-limit loan application
- Missing KYC document
- Incomplete loan verification

**C. Fraud Alerts**

- Same NID used twice
- Sudden savings withdrawal spike
- Ghost member detection
- Invalid adjustments

This supports Section 2.7 (Compliance & Fraud Control).


### 2.9.7 Scheduled & Auto-Distributed Reports
System must support:
- Auto-email distribution
- Scheduler (daily/weekly/monthly)
- PDF attachments
- Executive summary mode

Examples:
- Daily Collection Report sent to BM + Area
- Weekly PAR Report sent to Regional
- Monthly Financial Report sent to HO Finance
- Monthly MRA Pack sent to Compliance Team


## 2.10 – SYSTEM ADMINISTRATION & CONFIGURATION

System Administration ensures that the ERP remains secure, configurable, scalable, and aligned with Shakti's microfinance operations. This module is accessible primarily by HO IT, Compliance, Finance, and Authorized Admin Roles.

### 2.10.1 User Management & Access Control
**A. User Creation & Activation**
- System Admin can create users with:
  - Name
  - Role
  - Branch/Area/Region assignment
  - Mobile/email
  - Login credentials
  - Active/Inactive status


**B. Role-Based Access Control (RBAC)**
Each user role must have specific permissions:
- MFO → Field collection, center management, loan initiation
- BM → Loan approval (within limit), savings withdrawal approval
- Accountant → Maker for financial transactions
- Area Supervisor → Branch review access
- Regional/Zonal → Portfolio oversight
- HO Finance → Organization-wide financial visibility
- HO Compliance → Audit logs and regulatory reports
- Admin → Configuration access only (no financial actions)


**C. Permission Types**
- View
- Edit
- Approve
- Delete (restricted)

- Export
- Override (restricted)

**D. Security Rules**
- Maker and checker cannot be the same user
- Role changes require compliance approval
- High-level roles require OTP or 2FA
- Auto-expiry for inactive accounts

## 2.10.2 Organizational Structure Setup
System must support:
**A. Multi-Level Hierarchy**
1. **Zone**
2. **Region**
3. **Area**
4. **Branch**
5. **Center**
6. **Group**

System Admin must be able to:
- Create new zones/regions/areas
- Reassign branches
- Modify center or group structure
- Deactivate or merge branches

**B. Geographic Mapping**
- Branch GPS
- Center location (optional)
- Area-level tagging

## 2.10.3 Loan Product Configuration (Rule Engine)
This is one of the most important admin tools.
Admin must setup:
**1. Loan Products**
- Product name
- Product code
- Maximum loan amount
- Minimum loan amount
- Tenure (weeks/months)
- Interest rate (flat/declining)
- Installment frequency (weekly/monthly)
- Grace period
- Maximum concurrent loans
- Eligibility rule (e.g., group endorsement required)
- Required savings %
- LSF %
- Processing fee %
- Stamp fee %

**2. Loan Approval Workflow**
- BM approval limit
- Area approval limit

- Region approval limit
- HQ loan committee
- Auto-routing rules based on amount

**3. Loan Recovery Rules**
- Penalty settings
- Auto aging category rules
- PAR calculation settings
- Classification (1–30, 31–180, 181–365, 365+)

### 2.10.4 Savings Product Configuration
Admin must configure:
1. Savings Types
- Compulsory savings
- Voluntary savings
- Special savings products (if any)

2. Savings Rules
- Minimum deposit
- Maximum withdrawal per month
- Withdrawal approval hierarchy
- Interest rate (if applicable)
- Savings lock-in conditions
- Penalties for irregular savings (if applicable)

### 2.10.5 Approval Hierarchy Configuration
Admin can define:
**1.  Loan flow**
MFO → BM → Area → Region → HO

**2. Savings withdrawal flow**
Accountant (Maker) → BM (Checker)

**3. Write-off flow**
BM (Initiate) → HO (Approval)

**4. Exception override flow**
BM (Initiate) → Compliance (Approval)
This module allows dynamic updates as Shakti's policy changes.

### 2.10.6 Fee & Charge Configuration
Admin must configure:
- Loan processing fee %
- Revenue stamp fee amount
- Health/insurance fee
- Passbook fee
- SMS charge
- Penalty charge rates
- Any PKSF-associated charges

ERP must automatically apply fees based on configuration.

**2.10.7 Provisioning & Write-Off Settings**

Admin can configure:
- Provision % per loan category
    - Standard (1%)
    - Watchful (5%)
    - Substandard (25%)
    - Doubtful (75%)
    - Bad/Loss (100%)
- Write-off threshold
  (e.g., overdue > 365+ days + 2 years)
- Write-off approval hierarchy
- Automatic monthly provisioning generation


**2.10.8 Audit Trail & Security Configuration**

Admin can configure:
- Data retention period
- Log archive schedule
- Password policy (length, complexity, expiry)
- IP restriction
- Device restriction
- Enabling/disabling OTP or 2FA
- Maker-checker strict mode
- API access controls

ERP must:
- Log every user action
- Show who changed what
- Prevent deletion of audit logs

**2.10.9 Notification & Alert Settings**

Admin can create alerts for:
- Loan overdue thresholds
- Irregular center meeting
- Savings irregularities
- PAR increase
- System errors
- Branch cash mismatch
- High-value transaction alerts

Notifications can be:
- SMS
- Email
- In-system alerts

**2.10.10 System Parameters & Global Settings**

Admin configures:
- Organization name
- Fiscal year
- Financial period lock/unlock

- Default interest calculation method
- Default center schedule (weekly/monthly)
- Branch disbursement limit
- Maximum offline sync time for MFO app
- Settings for decimal rounding, currency format

### 2.10.11 Data Backup & Disaster Recovery
System must support:
- Automated real-time backup
- Real-time replication (if cloud-based)
- Off-site backup
- Data restore testing
- Disaster recovery SOP
- Secure backup encryption

HO Admin can view backup status inside ERP.

## 2.11 – INTEGRATION & EXTERNAL INTERFACES

Shakti Foundation ERP must support seamless communication and integration with external systems across SMS gateways, regulatory reporting, financial institutions, data analytics platforms, and internal IT systems.
Below are the required integration modules.

### 2.11.1 SMS Gateway Integration
Purpose:
To send automated SMS notifications to members, staff, and admins.

**A. Trigger-Based Messaging**
ERP should automatically send SMS for:
- Loan disbursement confirmation
- Loan installment reminders
- Savings deposit confirmation
- Arrear alerts (1 day, 7 days, 30 days overdue)
- Center meeting reminders
- OTP-based login verification
- System alerts (cash mismatch, irregular center, etc.)

**B. SMS Provider Integration**
ERP must support:
- HTTP/HTTPS-based API
- Token/key-based authentication
- Delivery receipt tracking
- SMS templates
- Multi-language support (Bangla required)

**C. Admin Control**
- Enable/disable SMS types
- Template editing
- SMS log view
- Monthly SMS usage reporting

### 2.11.2 PKSF Interface & Reporting Integration
ERP must support generating PKSF-required structures:

**A. PKSF Data Export Formats**
- Loan disbursement data
- Component-wise utilization
- Savings mobilization
- PAR reports
- Member demographic data
- Write-off & provisioning indicators

Export Formats:
- Excel (.xlsx)
- CSV
- XML (if future PKSF API introduced)

**B. PKSF API (Future Scope)**
If PKSF introduces automated reporting API, ERP should support:
- Secure API authentication
- Structured data transmission
- Automated monthly data sync
- Error logging
- Retry mechanism

### 2.11.3 MRA Reporting Integration
ERP must support MRA standard formats:

**A. MRA Form–1**
Loan & Savings Summary

**B. MRA Form–2**
Portfolio Quality

**C. MRA Form–3**
Operational & Financial Indicators
Export Requirements
- PDF (official format)
- Excel/CSV version
- Shakti branding & MRA-compliant structure

### 2.11.4 Accounting System Integration (Optional)
If Shakti uses a separate accounting software (Tally, QuickBooks, custom system):
ERP must support:

**A. Exportable Accounting Vouchers**
- Journal vouchers
- Cash payment vouchers
- Receipt vouchers
- Provisioning vouchers
- Disbursement vouchers

**B. Accounting Data Formats**

- CSV export
- Excel export
- JSON export (API future scope)

**C. Two Approaches**
1. **File-based transfer** (daily voucher export)
2. **API-based sync** (real-time)

## 2.11.5 Payment Gateway Integration (Future Scope)
Future digital loan repayment or savings deposit may require integration with:
- bKash
- Nagad
- Rocket
- Bank account payments
- Payment aggregators

ERP Should Support:
- API integration
- Reconciliation module
- Payment confirmation callback
- Member wallet linking
- Failed transaction handling

This is a future-ready feature.

## 2.11.6 Power BI / Tableau / BI Tool Integration
ERP must expose data for analytics dashboards.

**A. Data Export Requirements**
- Branch-level portfolio data
- Loan disbursement data
- Daily collection data
- Center performance data
- Member demographics
- Savings trends

**B. Integration Options**
- API endpoints for BI tools
- Direct database access (read-only)
- Scheduled export file feed
- OData integration

**C. Data Security**
- Read-only data connections
- IP whitelisting
- Column-level restrictions

## 2.11.7 Internal System Integrations
ERP should integrate with:

**A. HR System (if separate)**
- Employee master data

67

- MFO assignment
- Performance KPIs
- Leave/Roster (optional)

**B. Inventory/Asset System**
- Device tracking for MFO
- Branch asset register
- Audit logs

**C. Document Management System**
- Member KYC
- Loan documents
- PDF receipts
- Digital signatures

## 2.11.8 File Import/Export Interfaces
ERP must support:
**A. File Export**
- Loan report (CSV, XLSX, PDF)
- Savings report
- Arrear report
- Financial ledger export
- Center & group structure export
- PAR aging export

**B. File Import**
- Master data upload (during migration)
- Bulk center creation
- Bulk group assignment
- Member re-mapping
- Legacy savings balances
- Legacy loan balances

## 2.11.9 API Layer Standards
If ERP exposes APIs:
**A. Authentication**
- Token-based
- OAuth (optional)
- IP whitelisting

**B. API Types**
- Member API
- Loan API
- Savings API
- Collection API
- Disbursement API
- Center/Group API

**C. Logging**
- API call logs
- Error codes
- Retry mechanism

- Monitoring dashboard

## 2.12 – NON-FUNCTIONAL REQUIREMENTS (NFR)

This section ensures the ERP is secure, scalable, fast, reliable, and compliant with Shakti Foundation's operational standards.

### 2.12.1 Performance Requirements

**A. User Load**

ERP must support:
- 2,000 concurrent MFO users
- 500+ branch staff
- 50+ HO users
- Peak operations during morning field updates

**B. Response Time**
- Dashboard load < **3 seconds**
- Loan application save < **1.5 seconds**
- Collection posting < **1 second**
- Search query results < **2 seconds**

**C. Batch Processes**
- Nightly provisioning run < **30 minutes**
- Monthly statement generation < **2 hours**

### 2.12.2 Availability Requirements
- **99.5% uptime** (excluding scheduled maintenance)
- Multi-zone hosting optional
- Redundant failover system

### 2.12.3 Security Requirements

**A. Data Security**
- AES-256 encryption for sensitive data
- Encrypted backups
- Secure credential hashing
- Session timeout enforcement

**B. Access Control**
- RBAC (role-based access)
- Maker–Checker enforcement
- Unauthorized access alerts
- IP/device restriction for HO users

**C. Data Privacy**
- Compliant with NGOAB, MRA, PKSF
- Member KYC protected
- Data masking for sensitive fields

### 2.13.4 Scalability & Future Readiness

ERP must support:
- New loan products without code changes
- Adding new savings products

- Adding new branches/regions
- Integration with digital wallets
- Addition of eKYC verification
- Offline-first mobile app expansion

## 2.12.5 Offline Synchronization Requirements (for MFO App)
- MFO app must work without internet
- Must store:
    - Center schedule
    - Member list
    - Active loans
    - Savings ledger
- Must sync when network returns
- Sync conflicts resolved by last-write-wins or admin review

## 2.12.6 Data Backup & Disaster Recovery
**A. Backup Requirements**
- Automated daily backup
- Hourly transaction log backup
- Encrypted storage
- Backup retention: **7 years** minimum

**B. Disaster Recovery (DR)**
- Recovery Point Objective (RPO): **15 minutes**
- Recovery Time Objective (RTO): **4 hours**
- Off-site DR server

## 2.12.7 Auditability Requirements
ERP must offer:
- Immutable audit trail
- Complete traceability
- Full history view for:
    - Loan applications
    - Savings transactions
    - Disbursements
    - User modifications
- Exportable audit logs

## 2.12.8 Logging & Monitoring
System must log:
- Errors
- Exceptions
- API failures
- Unauthorized access attempts
- Login sessions
- Sync failures

Include monitoring tools for:
- CPU, RAM, storage
- API performance
- SMS gateway health
- Database load