**Referral System Requirements Document**

**Document Information**

**Project Name:** Bank Mobile Application Referral Program  
**Document Version:** 1.0  
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**Status:** Draft

**1. Executive Summary**

This document outlines the functional and technical requirements for implementing a comprehensive referral system within the bank's mobile application. The system will enable customer-to-customer referrals, aggregator/influencer partnerships, and promotional code campaigns to drive new customer acquisition.

**2. System Overview**

The referral system shall consist of three primary components:

* Standard customer referral program
* Aggregator and influencer referral program
* Promotional code campaigns

**3. Functional Requirements**

**3.1 Standard Customer Referral Program**

**3.1.1 Referral Code Generation**

**Requirement ID:** REF-001  
**Priority:** High  
**Description:** Upon successful registration on the bank mobile application, the system shall automatically generate and assign a unique referral code to each customer.

**Acceptance Criteria:**

* Each referral code must be unique across the entire customer base
* Referral code shall be alphanumeric and between 6-12 characters
* Code generation must occur immediately upon account creation
* Customer shall be able to view their referral code within their account profile

**3.1.2 Referral Code Sharing**

**Requirement ID:** REF-002  
**Priority:** High  
**Description:** Customers shall be able to share their referral codes through multiple channels to invite others to register.

**Acceptance Criteria:**

* System shall provide sharing functionality via SMS, email, and social media
* Referral code must be accompanied by a trackable link
* System shall maintain sharing history for audit purposes

**3.1.3 Referral Tracking**

**Requirement ID:** REF-003  
**Priority:** High  
**Description:** The system shall track all registrations associated with each referral code and link the referrer to the referee.

**Acceptance Criteria:**

* System shall capture the referral code entered during registration
* Referral relationship shall be permanently stored in the database
* Both referrer and referee data must be accessible for reporting

**3.1.4 Referral Fee Assignment**

**Requirement ID:** REF-004  
**Priority:** High  
**Description:** The system shall support configurable referral fees that are awarded to the referrer when specific conditions are met.

**Acceptance Criteria:**

* Referral fee shall only be awarded when the new account becomes active
* Account must be fully funded according to bank-defined criteria
* Referral fee amount shall be configurable by administrators
* System shall automatically credit the referral fee to the referrer's account upon qualification
* Notification shall be sent to referrer upon successful fee award

**3.2 Aggregator and Influencer Program**

**3.2.1 Custom Code Assignment**

**Requirement ID:** AGG-001  
**Priority:** High  
**Description:** The system shall allow administrators to create and assign custom referral codes to specific aggregators or influencers.

**Acceptance Criteria:**

* Administrators shall be able to create custom codes through admin portal
* Each aggregator/influencer shall be assigned a unique identifier
* Custom codes may be personalized (e.g., branded with influencer name)
* System shall maintain a registry of all aggregator/influencer partnerships

**3.2.2 Volume-Based Compensation**

**Requirement ID:** AGG-002  
**Priority:** High  
**Description:** The system shall support configurable compensation schemes based on the number of successful referrals from aggregator/influencer codes.

**Acceptance Criteria:**

* Compensation tiers shall be configurable (e.g., per 1,000 registrations)
* System shall track cumulative registrations per aggregator/influencer code
* Automated notifications shall be sent when compensation milestones are reached
* Compensation amounts shall be customizable per partnership agreement
* System shall generate payment reports for finance department processing

**3.2.3 Performance Analytics**

**Requirement ID:** AGG-003  
**Priority:** Medium  
**Description:** The system shall provide detailed analytics and reporting for aggregator/influencer performance.

**Acceptance Criteria:**

* Dashboard showing total registrations per code
* Conversion rate tracking (registrations to active, funded accounts)
* Time-series data showing registration trends
* Export functionality for reporting data

**3.3 Promotional Code Campaigns**

**3.3.1 Campaign Creation**

**Requirement ID:** PROMO-001  
**Priority:** High  
**Description:** Administrators shall be able to create promotional code campaigns tied to specific bank events or marketing initiatives.

**Acceptance Criteria:**

* Admin portal shall include campaign creation interface
* Each campaign shall have a unique promotional code
* Campaigns shall support start and end dates
* Maximum usage limits shall be configurable per campaign
* Campaign metadata shall include event name, description, and terms

**3.3.2 Promotional Code Distribution**

**Requirement ID:** PROMO-002  
**Priority:** Medium  
**Description:** The system shall support the release and distribution of promotional codes at scheduled intervals.

**Acceptance Criteria:**

* Promotional codes shall be activatable on specified dates
* System shall support time-based release schedules
* Codes may be distributed through in-app notifications, email, or SMS
* Multiple distribution channels may be configured per campaign

**3.3.3 Promotional Code Redemption**

**Requirement ID:** PROMO-003  
**Priority:** High  
**Description:** New users shall be able to enter promotional codes during the registration process to receive specified benefits.

**Acceptance Criteria:**

* Registration form shall include optional promotional code field
* System shall validate code in real-time
* Invalid or expired codes shall display appropriate error messages
* Redemption shall be tracked and associated with the customer account
* Benefits shall be automatically applied upon successful registration

**3.3.4 Campaign Performance Tracking**

**Requirement ID:** PROMO-004  
**Priority:** Medium  
**Description:** The system shall track and report on promotional campaign performance metrics.

**Acceptance Criteria:**

* Total redemptions per campaign
* Conversion rates to active and funded accounts
* Cost per acquisition calculations
* ROI metrics for each campaign

**4. Technical Requirements**

**4.1 Backend System**

**4.1.1 Database Requirements**

**Requirement ID:** TECH-001  
**Priority:** High  
**Description:** Database schema shall support all referral program components with appropriate relationships and indexing.

**Required Tables:**

* Customer referral codes table
* Referral relationships table
* Aggregator/influencer registry
* Promotional campaigns table
* Referral transactions and fee history
* Code redemption audit log

**4.1.2 API Requirements**

**Requirement ID:** TECH-002  
**Priority:** High  
**Description:** RESTful APIs shall be developed to support all referral program operations.

**Required Endpoints:**

* Generate referral code
* Validate referral/promotional codes
* Record referral relationships
* Process referral fees
* Retrieve referral history
* Campaign management operations
* Analytics and reporting queries

**4.1.3 Security Requirements**

**Requirement ID:** TECH-003  
**Priority:** Critical  
**Description:** All referral system components shall implement appropriate security measures.

**Security Controls:**

* Referral codes must be generated using cryptographically secure methods
* All API endpoints must require authentication and authorization
* Sensitive referral data must be encrypted at rest
* Audit logging for all administrative actions
* Rate limiting to prevent abuse

**4.2 Administrative Portal**

**4.2.1 Admin Interface**

**Requirement ID:** ADMIN-001  
**Priority:** High  
**Description:** A web-based administrative portal shall provide comprehensive management capabilities.

**Required Features:**

* Dashboard with key metrics and KPIs
* Referral fee configuration interface
* Aggregator/influencer management module
* Promotional campaign creation and management
* Reporting and analytics tools
* User role and permission management

**5. Business Rules**

**5.1 Account Activation Criteria**

* An account is considered "active" when the customer completes identity verification and accepts terms and conditions
* An account is considered "fully funded" when the initial deposit meets or exceeds the minimum threshold defined by the bank

**5.2 Referral Fee Eligibility**

* Referral fees are only awarded for accounts that become both active and fully funded within 90 days of registration
* Self-referrals are prohibited and shall be detected and rejected by the system
* Duplicate accounts from the same individual shall not generate referral fees

**5.3 Aggregator Compensation**

* Compensation milestones are calculated based on active and funded accounts only
* Partial milestone achievement does not qualify for compensation
* Compensation processing occurs on a monthly basis

**5.4 Promotional Codes**

* Each promotional code may only be redeemed once per customer
* Promotional codes cannot be combined with other promotional offers unless explicitly configured
* Expired promotional codes shall be automatically deactivated

**6. Reporting Requirements**

**6.1 Standard Reports**

The system shall generate the following reports:

* **Daily Referral Activity Report:** New registrations by referral source
* **Monthly Referral Fee Summary:** Total fees paid and pending
* **Aggregator Performance Report:** Registrations and compensation by partner
* **Campaign Performance Report:** Metrics for each promotional campaign
* **Fraud Detection Report:** Flagged suspicious referral activities

**6.2 Real-Time Dashboards**

* Executive dashboard showing program-wide KPIs
* Aggregator/influencer performance leaderboard
* Active campaign status overview

**7. Compliance and Legal Requirements**

**7.1 Regulatory Compliance**

**Requirement ID:** COMP-001  
**Priority:** Critical  
**Description:** The referral program shall comply with all applicable banking regulations and consumer protection laws.

**Requirements:**

* Terms and conditions must be presented and accepted by all participants
* Clear disclosure of referral benefits and requirements
* Anti-money laundering (AML) checks for referral fee payments
* Know Your Customer (KYC) requirements for all new registrations

**7.2 Data Privacy**

**Requirement ID:** COMP-002  
**Priority:** Critical  
**Description:** All personal data handling shall comply with relevant data protection regulations.

**Requirements:**

* Customer consent for referral program participation
* Data minimization in referral tracking
* Right to opt-out of referral program
* Secure handling of personal information

**8. Non-Functional Requirements**

**8.1 Performance**

* Code generation: < 1 second
* Code validation: < 500 milliseconds
* Referral fee processing: Batch processing within 24 hours
* Report generation: < 30 seconds for standard reports

**8.2 Scalability**

* System shall support up to 1 million active referral codes
* Concurrent registration processing: minimum 100 transactions per second
* Storage capacity planning for 5 years of referral data

**8.3 Availability**

* System uptime: 99.9% excluding planned maintenance
* Referral code generation and validation must remain operational 24/7

**8.4 Usability**

* Referral code sharing shall be achievable in maximum 3 clicks
* Administrative tasks shall be intuitive and require minimal training

**9. Implementation Phases**

**Phase 1: Core Referral System (Weeks 1-6)**

* Customer referral code generation and assignment
* Basic sharing functionality
* Referral tracking and relationship mapping
* Referral fee configuration and processing

**Phase 2: Aggregator/Influencer Program (Weeks 7-10)**

* Custom code assignment interface
* Volume-based compensation engine
* Performance analytics dashboard

**Phase 3: Promotional Campaigns (Weeks 11-14)**

* Campaign creation and management portal
* Scheduled code release functionality
* Campaign performance tracking

**Phase 4: Enhancement and Optimization (Weeks 15-16)**

* Advanced reporting and analytics
* System optimization based on initial usage
* User feedback incorporation

**10. Success Metrics**

The following key performance indicators (KPIs) shall be used to measure program success:

* Number of active referral codes
* Referral conversion rate (registrations to funded accounts)
* Average referral fees paid per month
* Aggregator/influencer partner acquisition rate
* Promotional campaign ROI
* Customer acquisition cost through referral channel
* Program participation rate among existing customers

**11. Assumptions and Dependencies**

**Assumptions**

* Customers have completed full registration before receiving referral codes
* Mobile application infrastructure supports additional features
* Payment processing system can handle referral fee disbursements

**Dependencies**

* Integration with existing customer registration system
* Connection to account management and funding systems
* Access to payment processing infrastructure
* Email and SMS notification services
* Administrative portal hosting environment

**12. Risks and Mitigation**

| **Risk** | **Impact** | **Probability** | **Mitigation Strategy** |
| --- | --- | --- | --- |
| Referral fraud (fake accounts) | High | Medium | Implement robust verification and monitoring; require full funding for fee eligibility |
| System abuse through code sharing loops | Medium | Medium | Detect circular referral patterns; limit referrals per customer |
| Performance degradation with scale | High | Low | Implement caching; optimize database queries; load testing |
| Regulatory non-compliance | Critical | Low | Legal review before launch; ongoing compliance monitoring |
| Data privacy breach | Critical | Low | Encryption; access controls; regular security audits |

**13. Approval and Sign-Off**

This requirements document requires approval from the following stakeholders:

* **Product Management:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_
* **Technology/IT:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_
* **Legal/Compliance:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_
* **Finance:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_
* **Marketing:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

**14. Revision History**

| **Version** | **Date** | **Author** | **Description of Changes** |
| --- | --- | --- | --- |
| 1.0 | October 1, 2025 | [Author Name] | Initial draft |

**Appendices**

**Appendix A: Glossary**

* **Referral Code:** Unique identifier assigned to customers for tracking referrals
* **Referrer:** Existing customer who invites new customers
* **Referee:** New customer who registers using a referral code
* **Active Account:** Account that has completed verification and accepted terms
* **Fully Funded Account:** Account that meets minimum deposit requirements
* **Aggregator:** Third-party partner who brings multiple customers to the bank
* **Promotional Code:** Time-limited code associated with marketing campaigns

**Appendix B: Related Documents**

* Bank Mobile Application Technical Specification
* Customer Onboarding Process Documentation
* Payment Processing Integration Guide
* Marketing Campaign Management Procedures
* Compliance and Regulatory Requirements Manual