Customer Experience Analytics

for Fintech Mobile Banking Apps

Interim Report

Generated: November 27, 2025

Omega Consultancy
Week 2: Data Collection & Early Analysis

Analyzed Banks:
• Commercial Bank of Ethiopia (CBE)
• Bank of Abyssinia (BOA)
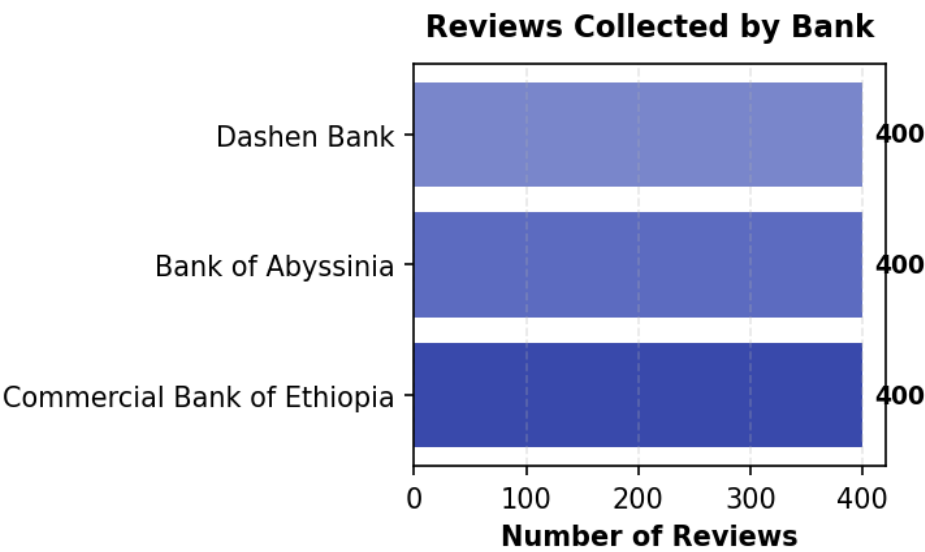• Dashen Bank

Executive Summary

Business Objective

The primary business objective of this project is to identify customer satisfaction drivers and pain points for mobile banking applications used by three major Ethiopian banks: Commercial Bank of Ethiopia (CBE), Bank of Abyssinia (BOA), and Dashen Bank. By analyzing user reviews from the Google Play Store, Omega Consultancy aims to provide actionable insights that will help these banks improve their mobile applications, enhance customer retention, and increase user satisfaction. This analysis will uncover what features and aspects users value most, as well as identify critical issues that need immediate attention.

This interim report presents the initial findings from analyzing customer reviews of mobile banking applications for the three banks. A total of **1,200** reviews were collected from the Google Play Store, with comprehensive data preprocessing and early sentiment analysis completed.

Data Collection Summary

Bank	Reviews Collected
Commercial Bank of Ethiopia	400
Bank of Abyssinia	400
Dashen Bank	400
Total	**1,200**

Data Collection Methodology

Reviews were collected from the Google Play Store using the google-play-scraper library. The scraping process targeted a minimum of 400 reviews per bank, sorted by newest reviews first. Rate limiting was implemented to respect Google Play Store's terms of service and avoid being blocked. Each review captured includes:

- Review text content
- Star rating (1-5)
- Review posting date
- Bank/app identifier
- Data source (Google Play Store)

Data Preprocessing & Quality

All collected reviews underwent comprehensive preprocessing to ensure data quality and consistency. The preprocessing pipeline included:

Duplicate Removal: Removed duplicate reviews based on review text and bank identifier

Missing Data Handling: Removed rows with empty review text and validated ratings (1-5)

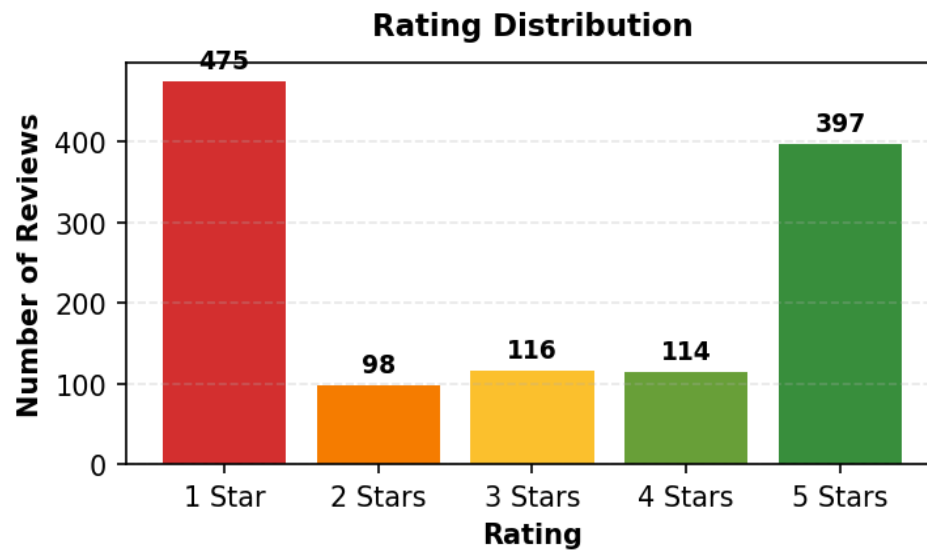**Date Normalization:** Standardized all dates to YYYY-MM-DD format

Data Quality Validation: Calculated and verified data quality metrics

Data Quality Metrics

Metric	Value	Status
Total Reviews	1,200	✓
Missing Review Text	0 (0.00%)	✓
Missing Ratings	0 (0.00%)	✓
Missing Dates	0 (0.00%)	✓

Rating Distribution

Rating	Count	Percentage
1 Star	475	39.6%
2 Stars	98	8.2%
3 Stars	116	9.7%
4 Stars	114	9.5%
5 Stars	397	33.1%

Early Analysis Results

Sentiment Analysis

Sentiment analysis was performed using DistilBERT-base-uncased-finetuned-sst-2-english, a transformer-based model fine-tuned for sentiment classification. The analysis classified reviews as positive, negative, or neutral with confidence scores.

Sentiment Summary by Bank

Bank	Reviews	Positive %	Negative %
Commercial Bank of Ethiopia	400	21.0%	79.0%
Bank of Abyssinia	400	15.2%	84.8%
Dashen Bank	400	66.2%	33.8%

Thematic Analysis

Thematic analysis identified key topics and concerns across reviews using TF-IDF keyword extraction and rule-based clustering. Reviews were categorized into 7 major themes:
• Account Access Issues
• Transaction Performance
• User Interface & Experience
• App Reliability & Bugs
• Customer Support
• Security & Privacy
• Feature Requests

Identified Themes by Bank

Bank	Number of Themes
Bank of Abyssinia	7
Commercial Bank of Ethiopia	7
Dashen Bank	7

Next Steps

The next phase of analysis will include deeper sentiment analysis by rating category, comprehensive theme extraction with examples, database design for structured storage, and visualization of key insights to support actionable recommendations for each bank.