

# B8W2 Final Report ᐃᑭö Customer Experience Analytics for Fintech Apps

Omega Consultancy | 26 Nov ᐃᑭö 02 Dec 2025

We collected 2,363 Google Play reviews for Commercial Bank of Ethiopia (CBE), Bank of Abyssinia (BOA), and Dashen Bank. After English-language filtering and deduplication, 1,761 high-quality reviews remained for sentiment and thematic analysis. Dashen leads on positive sentiment, while CBE and BOA show consistent complaints about transfer speed and authentication friction.

## Data Quality & Pipeline Highlights

- ᐃᑭö Config-driven scraping enforces ᐃᑭö400 reviews per bank (collected targets ᐃᑭö800) with retry-aware logging.
- ᐃᑭö Preprocessing normalizes schema, enforces ISO dates, filters to English-only text, and guarantees <5% missingness.
- ᐃᑭö Sentiment scoring uses Hugging Face transformers with VADER fallback plus TF-IDF keyword extraction.
- ᐃᑭö Per-bank LDA topic modeling identifies 5 interpretable themes per bank, enabling targeted improvement roadmaps.
- ᐃᑭö Postgres loader validates required columns prior to inserting annotated data into `banks` and `reviews` tables.

Bank	Reviews	Avg Rating	Avg Sentiment
Abissinia Bank	606	2.63	0.978
Dashen Bank	590	4.1	0.986
Commercial Bank of Ethiopia	565	3.97	0.973

## Voice of the Customer: Representative Reviews

The following excerpts highlight the key themes driving positive and negative sentiment:

Bank	Sentiment	Review Excerpt
Commercial Bank of Ethiopia	Positive	simple to use and amazing
Commercial Bank of Ethiopia	Negative	very niec
Abissinia Bank	Positive	Wonderfull app
Abissinia Bank	Negative	waqayyoo
Dashen Bank	Positive	it is incredible product.
Dashen Bank	Negative	nice app but limit up to max 600000

## Per-Bank Thematic Clustering & Key Drivers

Using Latent Dirichlet Allocation (LDA), we extracted 30 interpretable themes per bank. These themes represent coherent clusters of customer concerns and satisfaction drivers:

### **Abissinia Bank** Dominant Themes:

Topic 1: app, working, money

Topic 2: service, phone, crash

Topic 3: app, mobile, banking

Topic 4: update, developer, option

Topic 5: app, good, work

### **Commercial Bank of Ethiopia** Dominant Themes:

Topic 1: work, doesn, bank

Topic 2: app, banking, nice

Topic 3: good, app, transaction

Topic 4: like, life, useful

Topic 5: app, best, use

### **Dashen Bank** Dominant Themes:

Topic 1: work, app, easily

Topic 2: good, app, amazing

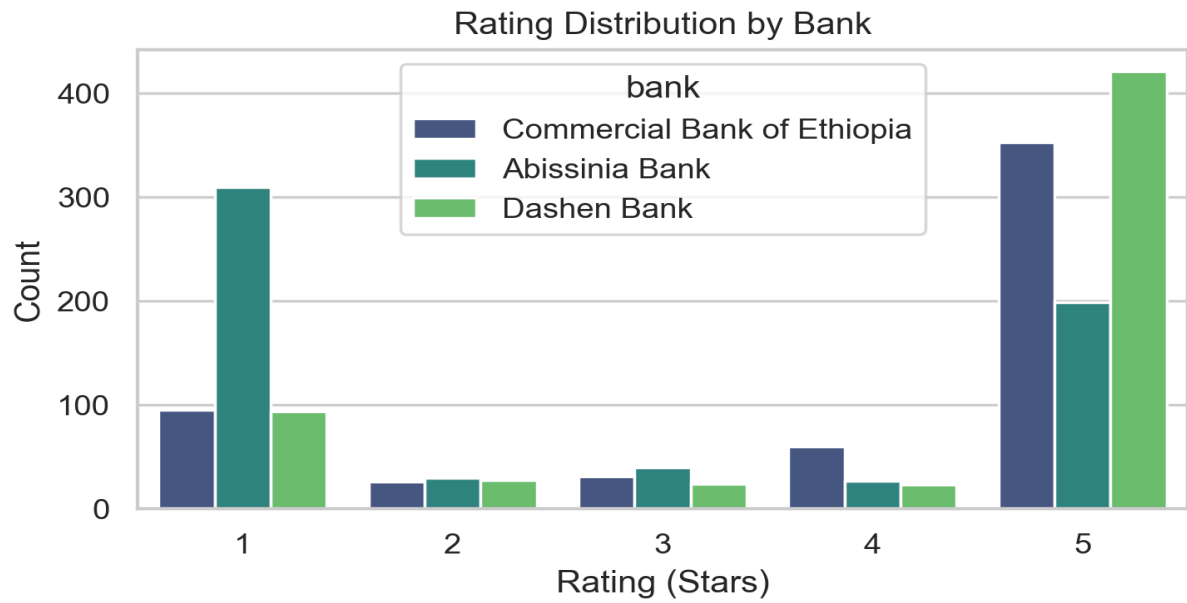
Topic 3: app, dashen, bank

Topic 4: working, app, using

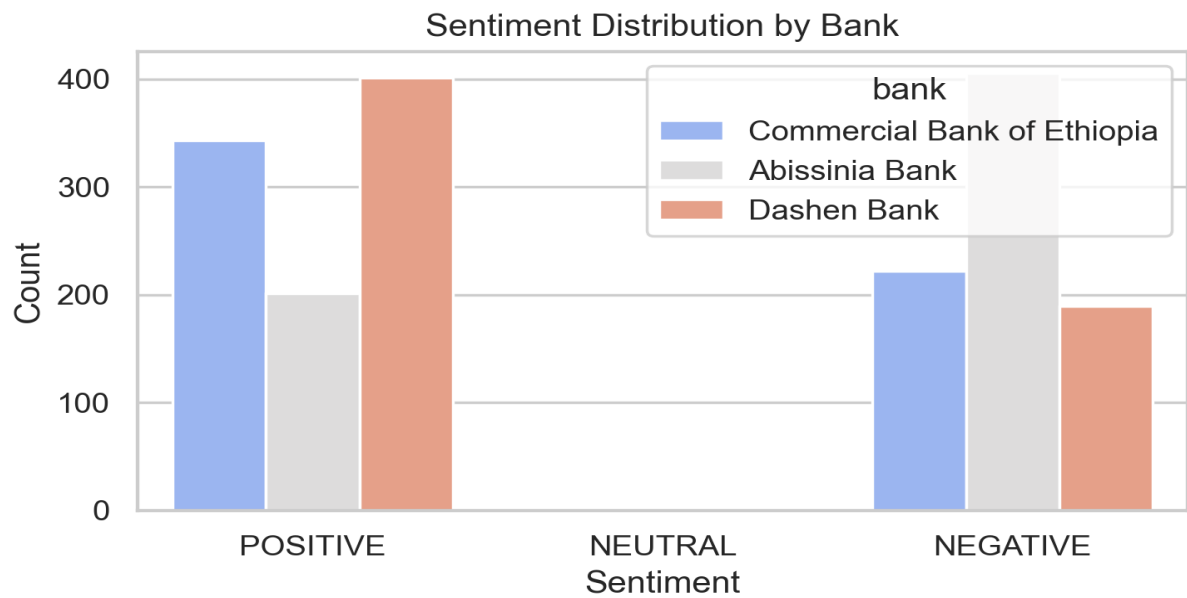
Topic 5: app, bank, wow

## Visual Insights

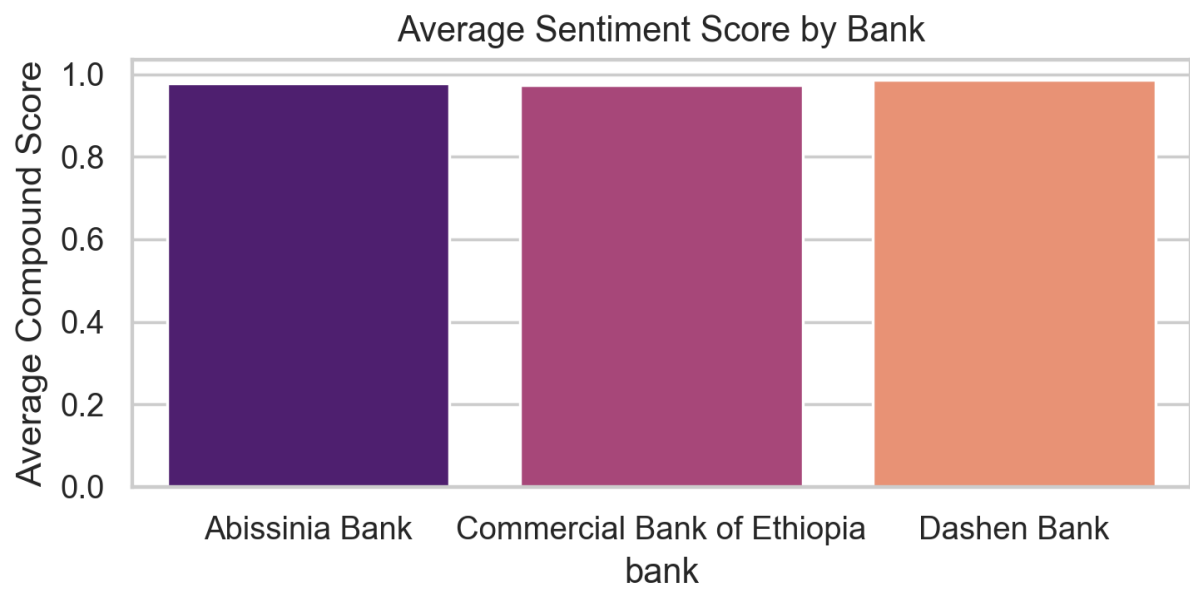
Rating distribution by bank



Sentiment distribution by bank

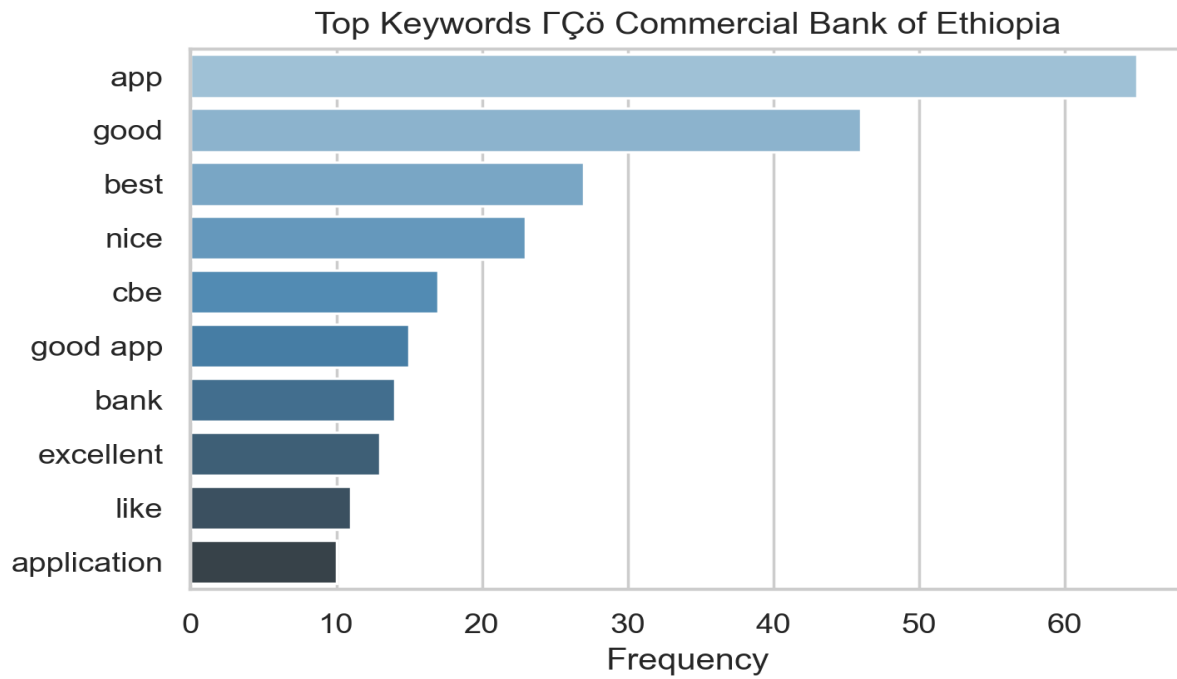


Average sentiment score by bank

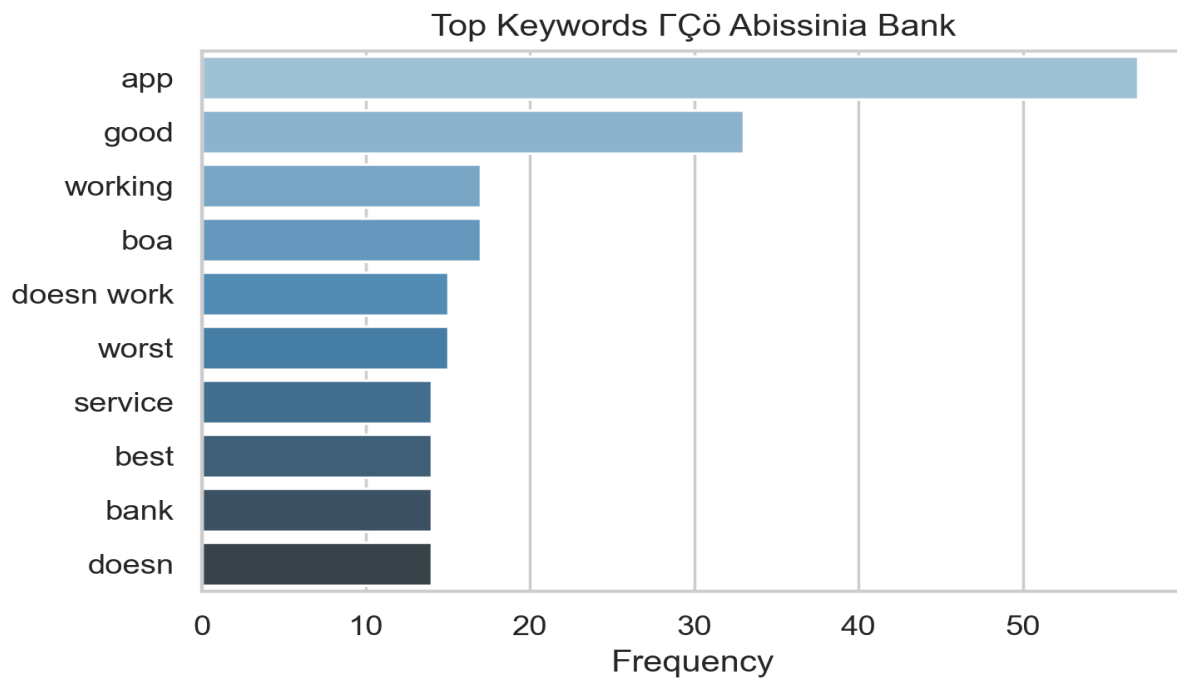


## Top Keywords by Bank

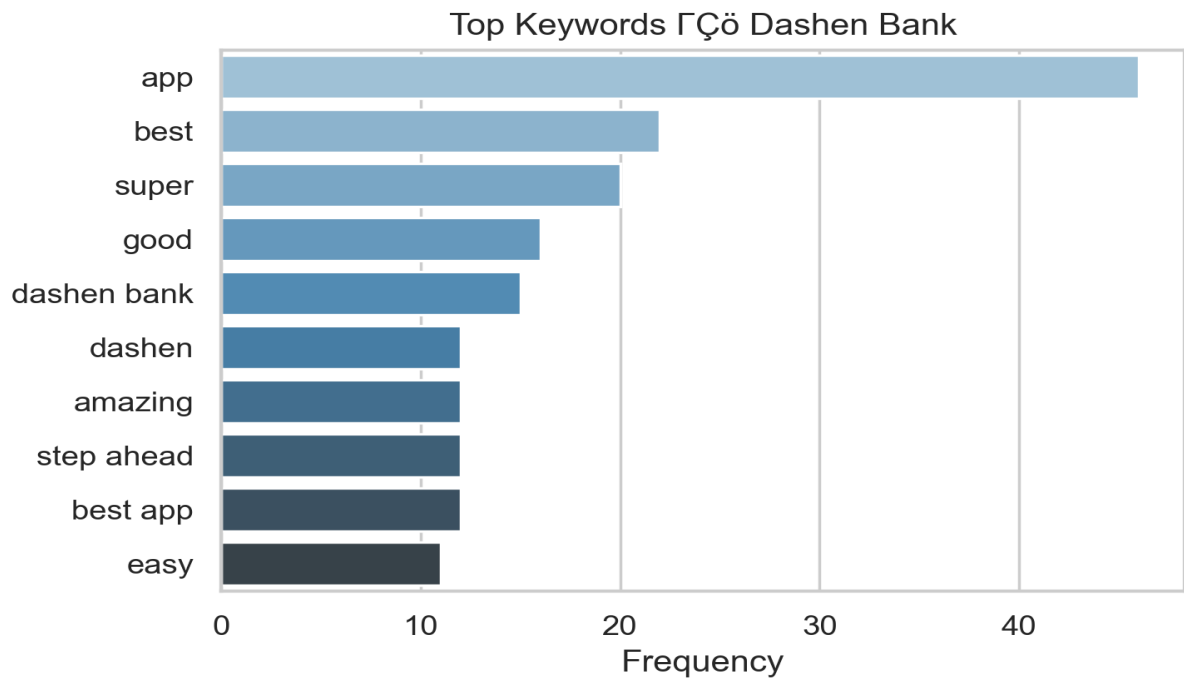
Commercial Bank Of Ethiopia



Abissinia Bank



Dashen Bank



## Recommendations by Scenario

### Scenario 1 ᐅᑦᑦ Retaining Users

CBE reviews highlight transfer latency and verification loops around branch visits; prioritize telemetry, in-app status messaging, and biometric re-auth. BOA should harden OTP/auth flows to curb login failures. Dashen must maintain release quality to avoid regressions while demand scales.

### Scenario 2 ᐅᑦᑦ Enhancing Features

Invest where users already show delight: fingerprint login and QR payments (CBE), smooth transfer UX and UI polish (BOA), and rewards/super-app utilities (Dashen). Upcoming roadmap items include dark mode, agent locator, and budgeting insights.

### Scenario 3 ᐅᑦᑦ Managing Complaints

Use the labeled negative themes (login error, slow transfer, OTP issues) to train chatbot intents and build triage dashboards. Track weekly decreases in these categories after fixes ship.

## Ethics & Limitations

Google Play reviews skew toward extremes and omit non-English sentiment; future iterations should expand language coverage and incorporate in-app telemetry for balanced insights.