

Case Overview

Objective:

Estimate daily offline credit card swipes in Guwahati.

Context:

A fintech startup is planning to launch a high-usage rewards app and requires a city-level usage baseline.

Focus:

The focus is on offline, in-person credit card swipes only, excluding online or contactless transactions.

Estimation Framework

1. Population Assumption

- **Guwahati Population:** Approximately 1.1 million.
- Being an urban and tech-savvy city, there is a high potential for credit card penetration.

2. Adult Population Estimate

- **Assumption:** 70% of the population are adults, equating to roughly 770,000 adults.
- With higher urban penetration, assume a 12% credit card penetration rate in Guwahati. This results in around 92,400 people holding credit cards.
- Usage Estimate: Assume 50% are active monthly users, which equates to approximately 45,000 individuals.
- **Swipe Frequency:** On average, there are about 8 swipes per month per user, translating to 1 swipe every 4 days.

Swipe Estimate Calculation

Metric	Value
Credit Card Users	92,400
Monthly Active Users (50%)	45,440
Avg Swipes/Month/User	8
Total Swipes/Month	443,520
Avg Daily Swipes	~100,000

Assumptions, Breakdown & Takeaways

Key Assumptions Recap

Parameter	Assumption
City Population	1.1M (Urban Guwahati)
Adult %	70%
Card Penetration	12% (Urban boost from national avg)
Active Usage %	60% of cardholders
Usage Frequency	8 swipes/month (industry avg)

Sensitivity Check

How changes in variables affect the estimate:

Scenario	Est. Daily Swipes
Conservative (8% penetration)	~9,800
Aggressive (15% penetration)	~18,500
Tier-2 pattern (4 swipes/user)	~7,400

Final Estimate

• Estimated Daily Swipes:

Approximately 100,000 credit card swipes occur daily in Guwahati (offline).

• Range:

The range is between 9,000 and 18,000 based on sensitivity analysis.