**Problem Statement**

- FEMSA is one of Mexico’s largest holding companies, and a key player in beverages and convenience in Latin America.
- FEMSA’s retail brand, Oxxo, has become the largest convenience store chain in Mexico.
- FEMSA’s digital wallet, Spin, provides financial services and products in store, where customers can pay their utility bills, buy phone top-ups, and make deposits.
- FEMSA is now shifting to an integrated ecosystem, and as the company looks to generate synergies between businesses.

**Methodology**

### BASELINE MODEL

We used the model Simple Algorithm for Recommendation (SAR), from the library recommenders (Microsoft).

- Only based on transaction history
- High accuracy (based on affinity)
- Fast training
- Fast scoring

We tested the effectvity of our baseline model on two controlled settings, testing 8 categories on each, sending push notifications:

- **CONTROL**
  - Check out our available discounts!
  - Check our tax discounts in [this item]

- **CATEGORY**
  - Value gap analysis
  - Product’s ranking per user, mainly based on interactions rather than explicit feedback

**RESULTS**

1. **EXPERIMENTS**
   - Open rate
   - Items purchase impact
   - Smoothing on seasonality* 4.5% p.p.

2. **FINAL MODEL PERFORMANCE**
   - 17% value gap analysis
   - 37% users with new items
   - 15% avg. cross-sell share
   - 14.24% Expected value

**BUSINESS IMPACT**

- **EXPECTED VALUE PER CAMPAIGN**
  - 108K USD/campaign
  - 50% efficiency capture
  - 5.2% purchased items impact
  - 1.5 USD/item on average
  - 250K customers/campaign

- **NEW EXPECTED VALUE PER CAMPAIGN**
  - 126k
  - 134k
  - 143k

**Next Steps**

- **ARCHITECTURE**
  - Pipeline development
  - Smoothing post-processing logs
  - Improving data quality for less sparse datasets and accurate modeling
  - Application of additional business rules

- **MODELING**
  - Testing users level features with hybrid model alternatives once there’s less sparse data
  - Testing user-level features in the post-processing similarity matching

- **DEPLOYMENT**
  - Additional testing opportunities
  - Pilot once there’s a proper architecture
  - Brainstorming further use cases for the Final Model