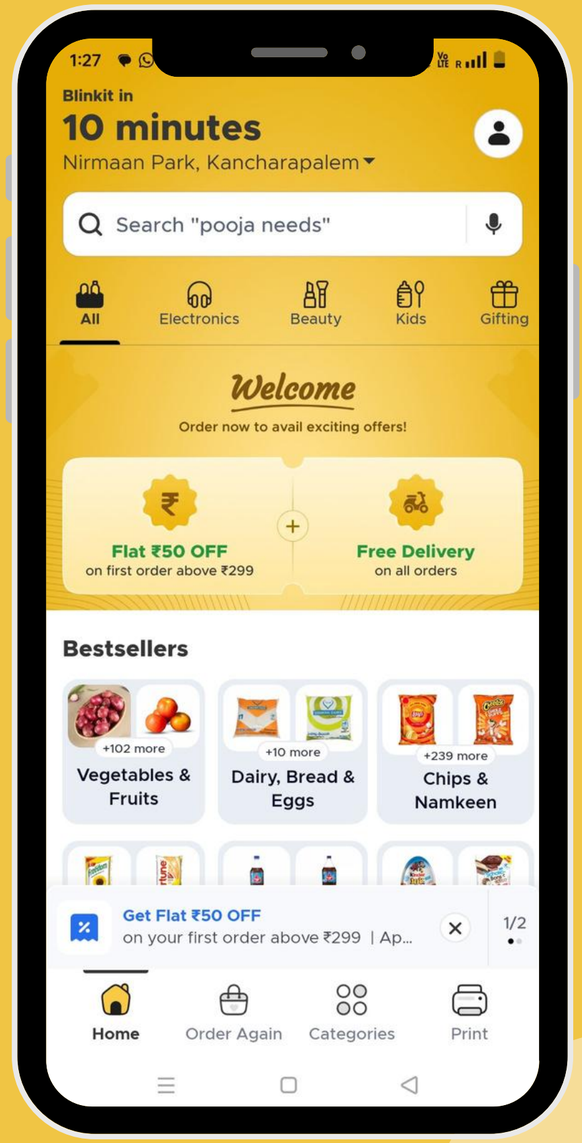
blinkit

Churn Analysis & Strategies



Smudge

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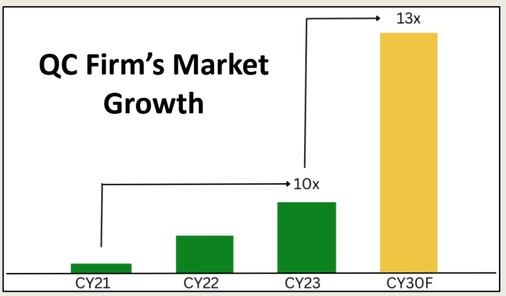
A Glimpse of Blinkit and the Indian Quick Commerce Industry

Business Profile

- **Quick Commerce Model**: Ultra-fast grocery and essentials delivery, powered by hyperlocal micro-warehouses.
- **Broad Catalog & Convenience**: Offers a wide range of everyday products with doorstep delivery in minutes.
- **Tech-Driven Operations**: Utilizes proprietary tech for route optimization and inventory management.

Key Insights



- **Market Profile – Highly Competitive**
- Typical monthly churn for food/grocery can be **25-30%** without strong retention tactics
- Customers demand: **Speed**, **Reliable Deliveries** & **Price Transparency**

Competitors & Market Share

Delivery Times

blinkit	Blinkit	10 Mins
SWIGGY instamart	Instamart	15 Mins
bb	Big Basket	20 Mins
OLA	Ola Foods	30 Mins

The Holy Grail of Quick Commerce: The Churn

Churn Driver	Description	Impact Level	Supporting Data
Delivery Reliability	Late/inconsistent deliveries; incorrect or missing items.	High	**70%** of users abandon after repeated late deliveries; Rider turnover of **18–20%** disrupts service.
Pricing & Fees	High/hidden delivery fees; confusing fee structures (e.g., small-basket charges).	High	Industry churn can exceed **25–30%** monthly due to pricing dissatisfaction.
Product Availability & Inventory	Frequent stockouts or limited SKUs leading to lost orders and trust.	Medium-High	Recurring out-of-stock items prompt "app-hopping."
User Experience (UX)	App glitches, complex checkout, slow load times.	Medium-High	Up to **77%** of new users may churn if technical issues persist.
Customer Service & Issue Resolution	Unresponsive support; slow refunds; unresolved complaints.	Medium	Prompt, empathetic resolution can prevent churn post-service hiccup.
Personalized Engagement & Marketing	Irrelevant or excessive notifications; lack of tailored offers.	Medium	Personalized marketing can reduce churn by **15–20%**.

Internal Churn Driver	Qualitative Reasons	Quantitative Analysis
Billing & Payment Friction	Customers complain about complex invoices, unclear fees, or late payment notifications	• **Logistic Regression**: β ≈ **1.99**, significantly increases churn odds by **7.3x** • **Random Forest**: Billing features are key split variables, contributing heavily to **99%** accuracy.
Support & Service Issues	Long wait times, unresolved problems, repeated contacts.	• **Logistic Regression**: β ≈ **1.09**, **3x** odds of churn) • **Random Forest**: High call frequency is a clear churn differentiator.
Engagement & User Drop	Boredom, lack of new features, or **"no reason to open the app"**	• **Service Usage Rate**: Negative coefficient **(*β*≈−0.52)**, so higher usage reduces churn odds by **~41%**. • **Recent Activity**: also slightly negative, indicating active users are safer.
Plan & Duration Mismatch	BASIC/STANDARD customers feel insufficient services Low switching cost for monthly subscribers	• **Agreement Duration**: Negative coefficient **(*β* ≈ −0.11)**, implying longer contracts reduce churn risk **(~10%)**. • **Plan Type**: Mildly negative coefficient (*β* ≈ **−0.11**) for certain plans (e.g., Premium), indicting tiers are sticky
Demographic Nuances	Product design, marketing messages, or brand image might be less appealing	• **Sex** has a positive coefficient **(*β*≈0.57)**, suggesting the encoded gender is **1.76x** churning than other • **Customer Age** with **β≈0.29** indicates older customers churn more
Tenure Effect	Long term users feel app's novelty worn off Loyalty program unrewarded	• **Tenure: (β≈0.60)** indicates longer-tenured customers churn more, possibly due to dissatisfaction.

Exploratory Data Analysis (EDA)

- **Churn vs. Plan Type**: Slightly lower churn among Premium users.
- **Churn vs. Billing Delay**: High delays strongly correlated with churn.
- **Churn vs. Support Calls**: More calls also correlated with churn.

Feature Engineering

Support call per month= Support Calls/Tenure.

Reason: Normalize call frequency over time.

Delayed Billing Ratio = Billing Delay/Tenure.

Reason: Weighted delays by how long the customer has been on the platform.

Modelling Approaches

Logistic Regression

Results:

Accuracy: ~ **82%**
Precision/Recall: ~ **80–85%** for both.

Random Forest

Results:

Accuracy: **99%**
Precision/Recall: ~ **0.99** across both classes.

Roadmap

Phase 1

Immediate Fixes
1 – 3 months

Billing Transparency & Fee Overhaul

What - Redesign invoices, enable auto-pay, provide clear fee breakdowns across Basic, Standard, and Premium

Why - Price-sensitive Basic users often churn when blindsided by fees; Standard users might question the plan's value if billing is unclear

Impact - Could reduce churn by **5–10%** among cost-sensitive cohorts

Early-Engagement Campaigns

Proactive in-app nudges, push notifications, or small loyalty rewards after first few orders—tailored differently for Basic vs. Standard/Premium

Low usage strongly predicts churn; a "**re-engagement**" approach can raise activity by **10–15%**

Basic plan users see curated deals or free deliveries on specific items; Standard users get modest loyalty points to boost usage

Support Restructuring

Train staff for faster first-call resolution. Expand chatbots/self-service for Basic/Standard users to handle common queries. Ensure Premium's **24/7** line is truly "**immediate**"

Negative support experiences correlate with a **3x** churn odds

Helps maintain Premium's low churn while mitigating dissatisfaction in Basic/Standard

Phase 2

Medium Term Initiatives
3 – 6 months

Delivery Optimization

Route optimization to ensure on-time deliveries for all plans. Priority fulfillment system for Premium, guaranteeing **10–30** minute windows

Late deliveries are a top churn driver across quick-commerce; Premium must preserve its promise to keep churn minimal

Could reduce churn by **10–15%** for users who previously experienced delays, reinforcing plan promises

Refined Plans & Contracts

Basic: Possibly remove or lower minimum order thresholds during off-peak to encourage usage

Standard: Introduce loyalty rewards

Premium: Periodic introduction of "**surprise & delight**" benefits (e.g., free gift items) to boost user engagement

Align plan features with user expectations; usage and satisfaction should grow with more tailored benefit

Lowers churn in Basic and Standard tiers by incentivizing them to not "**jump ship**" to a competitor

Inventory & Stock Management

AI-driven demand forecasting, real-time stock checks, and special priority restocking for high-demand items

Stockouts drive churn; consistent availability is crucial, especially for Premium users expecting "**the best experience**"

Minimizes "**app-hopping**" could raise retention by **5–8%** across all tiers

Phase 3

Long Term Strategies
6 – 12 months

VIP/Elite Extensions for Premium

Tier up within Premium for ultra-loyal, long-tenured customers—faster reward accrual, exclusive access to new product launches, or "**white-glove**" service

Combat the surprising "**Tenure effect**" **(β≈0.60)** by continually refreshing loyalty perks to prevent stagnation

Reduces churn among the most valuable users who might feel bored or unappreciated over time

Personalized Marketing & Advanced Loyalty

Leverage churn model outputs (**Random Forest signals + usage data**) to deliver targeted offers. For Standard/Premium, tailor loyalty rewards to user behavior (e.g., frequent snack shoppers get snack-related offers)

Personalized marketing can reduce churn by **15–20%**

Basic might upgrade to Standard, Standard might jump to Premium, or at least remain loyal if they see relevant offers

Continuous Model Monitoring

Validate the Random Forest monthly with fresh samples, track feature importance changes, and respond swiftly to new churn triggers

Quick-commerce is dynamic; competitor moves or policy changes can shift churn drivers

Ensures Blinkit remains agile and addresses emerging pain points before they escalate churn rates

Additional Analysis

Interactive Power BI Dashboard: Dashboard Link

Python Code: Google Colab Link

Pdf with detailed dataset insights: Document Link

Thank You!