Zepto Free Cash Disablement Analysis

Project Summary

We analyzed why Zepto users lose access to "free cash" rewards. We created a simulated dataset with 827 users, each having features like device accounts, wallet top-up, login hour, and total orders.

Dataset Details

Dataset contains:

- 827 users

- Target: free cash disablement (Yes or No)

- Features:

    * device_accounts (1 to 5)

    * wallet_topup_amt (0, 10, 50, 100)

    * login_hour (0 to 23)

    * total_orders (0 to 9)

Data Analysis & Results

1. **Device Accounts vs Disablement Rate1. Device Accounts vs Disablement Rate**

Device Accounts	**Disablement Rate (%) (Yes)**	**Enablement Rate (%) (No)**
1	51.04	48.96
2	49.15	50.85
3	71.09	28.91
4	75.00	25.00
5	70.37	29.63

Explanation:
Users with 3 or more devices linked to their account have a much higher chance (about 70-75%) of having free cash disabled. This shows that using many devices might trigger restrictions.

2. **Wallet Top-Up Amount vs Disablement Rate**

Wallet Top-Up Amount	**Disablement Rate (%) (Yes)**	**Enablement Rate (%) (No)**
0	72.62	27.38
10	34.16	65.84
50	43.65	56.35
100	33.85	66.15

Explanation:
Users who never added money to their wallet have the highest disablement rate (72.6%). Adding money seems to reduce the chance of free cash being disabled.

3. **Login Hour vs Disablement Rate**

Login Hour	Disablement Rate (%) (Yes)	Enablement Rate (%) (No)
18(6 PM)	86.21	13.79
19(7 PM)	54.55	45.45
20(8 PM)	76.32	23.68
21(9 PM)	74.29	25.71

Explanation:
Free cash is more often disabled for users who log in during the evening hours (6 PM to 9 PM). Zepto might watch activity more closely during these times.

4. **Total Orders vs Disablement Rate**

Total Orders Range	Disablement Rate (%) (Yes)	Enablement Rate (%) (No)
0-1	51.47	48.53
2-3	53.95	46.05
4-6	56.64	43.36
7-10	72.50	27.50

Explanation:
Users with more orders (7-10) have a higher chance (72.5%) of free cash being disabled. Frequent ordering might lead to extra checks or restrictions.

Business Insights

1. **Multiple devices linked to one user could indicate misuse.**
   - If one user account is being accessed from 3 or more devices, it may suggest suspicious activity (like sharing accounts or creating multiple logins).
   - This could be a signal for potential abuse of offers or fraud.
2. **Inactive wallet users are more likely to lose free cash.**
   - Users who don't top up their Zepto wallet at all had the highest rate of free cash being disabled.
   - This may show they are only signing up for the offer (not genuine buyers), so the system flags them.
3. **Evening peak hours require close monitoring.**
   - Most disablements were seen between 6 PM and 9 PM — a high-traffic time.
   - This suggests fraud systems might be more active then, or fraudulent activity is more likely to happen when users are rushing orders.
4. **Frequent buyers should be monitored for fraud risks.**
   - Users who placed many orders (7–10) also had a high disablement rate.
   - This could mean some users try to abuse promotions or cashbacks by placing multiple small/fake orders — needing closer monitoring.

Limitations

- Data is simulated, not real.
- Additional data and features may improve analysis.
- More validation needed with live Zepto data.

Recommendations & Next Steps

1. **Share findings with Zepto fraud and product teams**
   - If this were a real project at Zepto, these insights should be shared with teams responsible for fraud detection and improving user experience.
   - They can use this analysis to refine how they flag suspicious accounts.
2. **Use this analysis to create fraud detection models**
   - The patterns found in this project (like device count, wallet usage, login time) can be used as features in a machine learning model.
   - This model could automatically predict which users are at higher risk of being flagged for fraud.
3. **Collect more real user data for better accuracy**
   - Since your current project uses simulated data, collecting real user data would make predictions and insights more reliable.
   - The company can then make smarter decisions with better evidence.