



# Campaign Analysis

**Campaign Code: ZPI = 220801\_115**

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# Context

**Business Objective:** Acquire new mapped users - users who link a bank card & new paying users - complete their first fund-in or payment  
→ referral-based promotion

## About referral-based promotion including inviter and invitee

1. Inviter - share a referral link with friends -> earn 50k VND cashback reward

2. Invitee

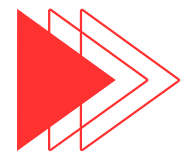
- Click referral link
- Link bank card successfully
- Fund-in at least 10k or make a payment

If successfully, they will receive a bunch of vouchers



# As a part of Risk Management and Data Analytics teams, the campaign are having existing issues

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Bot-driven factors in transactions



Promotion ineffectiveness leading to promotional values lost

## **Job-to-be-done:**

1 - Detect bot-driven abuse

2 - Measuring & Visualizing the Impact of Abusers

# Recent direction of problem-solving

## ✓ Mission

Support the team on figuring out the bot signs to serve **the ultimate goal of reducing the risks** and **propose actions on gaining positive impacts to generate profit for business.**

## ✓ Ways of thinking

1/ Clarify the business objective in **every aspect** and **understanding the process** of referral mapping via flowchart given.

2/ By understanding, I will define clearly about the problem and which stage is potential being abused by bot, then use SQL to query

- Moreover, should **make assumptions** on which stage is likely to be driven by bot → find ways to reduce/stop

→ *Instead of discovering all the data, try to reach out the problem statement first in a very very detailed way.*

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# Before, I made **mistakes** until the close deadline of submission

## **Mission**

- Follow the objective of finding bots and the way of detecting bot-driven abuses
- Do visualization to make analysis on the impact of these users

## **Ways of thinking**

- 1/ Understanding the data and then try to query all the data to find bot signs
- 2/ Seek for the common patterns to make sure whether it is bot or not
- 3/ Do visualization to do analysis

Lesson learned: Before doing analysis, try to do a very careful, concise and detailed analysis on problem statement.

- Clarify on what aspect is not obvious - make assumptions

# Next step, I will re-do the analysis on detecting the bots through the process

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## 1/ In the first stage of visiting campaign or referring links

**Risk:** sender hasn't referred limit

**Possible reason for defining bot:**

- Bulk requests are sent and skip required fields
- Requests are repeated or sent too quickly
- The same request without adjusting information is sent

# Next step, I will re-do the analysis on detecting the bots through the process

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## 2/ In the stage of mapping bank/card

### **Risk 1: Not successful while mapping bank/card**

#### **Possible reason for defining bot:**

- Wrong or not suitable information in fields
- Many users try to use the same bimID

*(normally characteristic of bot is being fast and repetitiveness)*

### **Risk 2: Despite mapping successfully, not get qualified to get rewards**

#### **Possible reason for defining bot:**

- Bulk transactions are made
- Lack of required information in doing transactions such as deviceId, userIP which must have.

# Next step, I will re-do the analysis on detecting the bots through the process

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## 3/ Make ZP wallet fund-in

### Risk 1: Not able to get rewards

#### Possible reason for defining bot:

- Lying on the transactions that are having lack of required information such as deviceId, userIP
- Mass account creation/requests in a short time



#### Data mainly used:

- *transactions* → count the distinct *userID*
- *map\_card* → based on *bimID* and information in transaction to define clearly about the reason that sender hasn't referred limits
- *transfer* → estimate the loss
- *campaign\_info* → estimate the effectiveness of *promotion\_type*

*\*other data sheet is still used for extracting information to get more concise outcome in querying*



**THANK YOU SO MUCH**

# LINKS

Google Drive link to access my work

<https://drive.google.com/drive/folders/1eBOt99P3FL8HBCtXUrdIDUjBjoWhp1iH?usp=sharing>

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