

# Automating Kaching

The Problem: **Too much work, Too less time**



Kaching is a **referral + affiliate solution** for F&B, retail, & beyond; **rewarding** creators, celebrities, moms, influencers, high-school kids, & everyday people for referring their friends and followers to businesses they love.

# Deck Overview

## A brief summary & distribution of our solutions

1

Overview of current process and breaking the whole user journey in three parts (A, B, C) and trying to find root cause of the problem on hand.



**Part A** - Sharing SM handle  
**Part B** - Accessing ID & collecting payment info  
**Part C** - Processing payment

2

Listing all the stakeholders, identifying their pain points & deciding the lines on which to think for solution.

Builds upon the current process with redistribution of inputs & optimisations in Part A & B of user journey followed by CRM for payment

Proposes input channel modification in Part A, eliminating need of Part B & again relies on the CRM solution for Part C.

Proposes a reincarnation of the Kaching Scanner (optimising Part A) with partial optimization in Part C.

Proposes a major restructuring in Part A which makes the existing influencers more loyal but not focused on non-users. Also eliminates need for Part B using a modified CRM tool for Step C.

Proposes automation of Part B & C of user journey using CRM tool, NLP & a chat integration API- **Beeper**.

3

Proposing and exploring various possible modifications in different parts of the user journey.

**Store-ID based Confirmation System**

**Website Signup functionality**

**A Store-based POS System**

**Loyalty Program**

**A CRM powered Chatbot system**

SOLUTIONS

6

Final conclusion on proposed solutions & discussing possibilities of hybrid solutions.

5

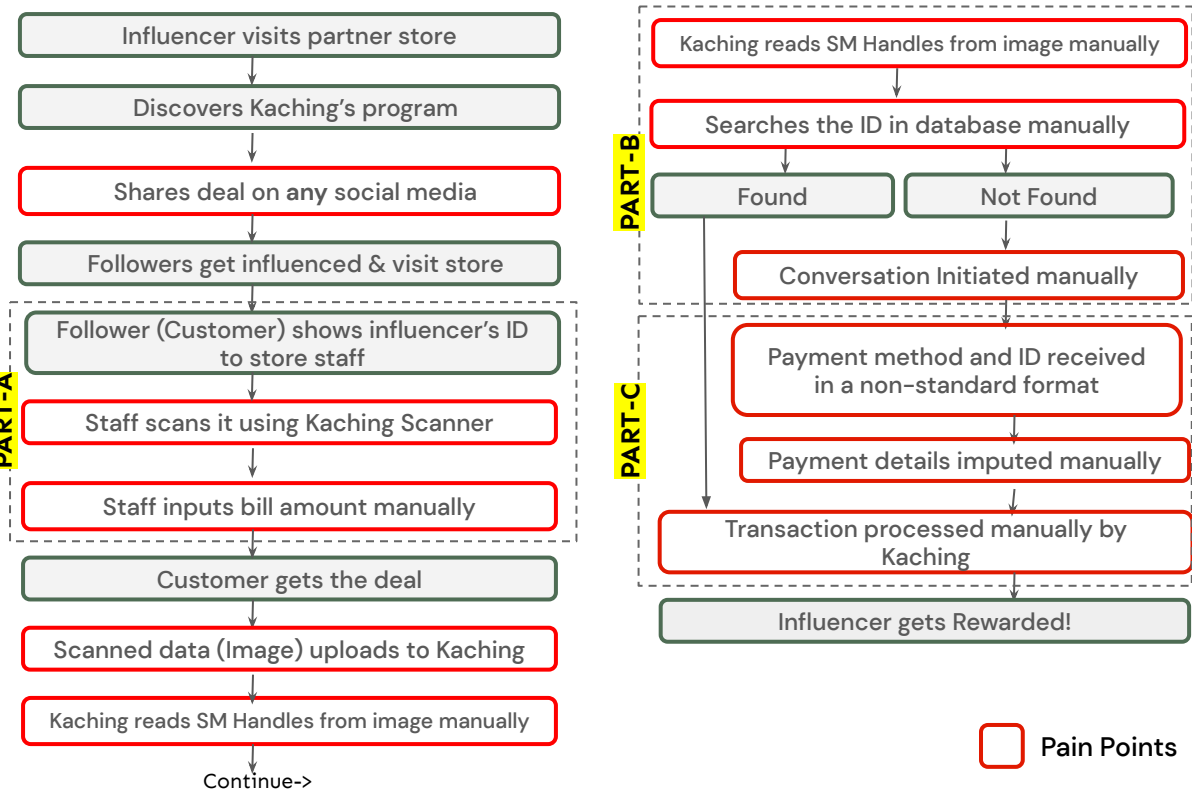
Business impacts, possible loopholes and workarounds of discussed solutions.

4

Important metrics to track the success of solutions on product & business fronts.

# Current Process wrt to time taken

## Understanding the root cause of the problem



  Pain Points

### Time Kaching Scanner consumes

Guesstimating the approximate time and workforce required in using the Kaching Scanner -

- Uploading the image and identifying id: 30sec
- 1200+ customers visiting in 60 days via 1 influencer. \*
- Therefore avg. no. of referral per influencer per day: 20
- Associated influencers currently = 500\*
- Percent influencers posting on their social media: 70%
- Time spent in varying profile:  $500 \times 20 \times 0.7 \times 30 = 58.33$  hr
- Considering an employee spends 8hr verifying. Number of employees needed =  $58.33 / 8 = 8$  employees

### Time UPI ID collection consumes

Guesstimating the approximate time\*\* and workforce required in collecting the UPI IDs -

- Assuming username is noted down from the scanner
- Time spent in searching username in database: 15 sec
  - If not found
  - Time spent in opening platform and finding profile: 1 min
  - Time spent in sending message: 10sec
  - Writing ID to database after reading the reply: 20 sec
  - Total time spent per user =  $15 + 60 + 10 + 20 = 105$  sec
  - Number of kaching outlets = 50
  - Assuming 2 new influencers are added in our database
  - Total time required = 210 sec


+ human inefficiencies.

References:  
\*<https://www.notion.so/Kaching-57fd850ff9824f0a9b8209619c4edf35>  
\*\*Approximate 30 people were asked to perform the given tasks, and their average time in used in the guesstimate.

# Pain Points wrt to Stakeholders


## Understanding the needs of the solution

Customer




- **High wait time** in influencer verification
- Lack of **proper feedback** channel
- No omnipresent medium for **discovery** (of Kaching)

Store




- **Unavailability of scanner in surge times** may slow down operations.
- **Extra costs** in multiple scanners
- **Higher Staff** requirements
- **Fake claims** by customers

Influencer



- **No platform to change** SM handle & payment details after first linking to DB.
- Needs to take **load of action** while inputting payment mode & details.
- **Trust issues** on authenticity of reward message received first time.
- **No way to track benefits** from Kaching on a single platform.
- No omnipresent medium for **discovery** (of Kaching)


Kaching



- Highly **time consuming & error prone manual reading** of data, inputting & maintenance of database, searching for influencer, initiating conversation, reading payment details, initiating payment.
- **High human resource cost & extra hardware cost** on scanner without value.
- Multiple social media platforms put **interoperability issues**.
- Several social media platforms **don't support chat**. (Like YouTube)
- Payment details can be sent in any format, making it **hard to automate**.
- Storing image on database involves **high memory** and tech cost.
- No way to **verify authenticity** of claims, hence **misattribution losses**.
- **Lack of customer retention** as drop off after first interaction.

## HOW DOES IT MATTER TO KACHING?

Pain Points	Consequences	Impact
Manual Operation	Time consuming, error-prone	System becomes inefficient with growth
No interoperability across platforms	Delays and misses, inefficiency,	Business Losses
Lack of an omnichannel platform for all stakeholders	Poor customer experience	Lack of a customer retention cycle



THINKING TRACK OF SOLUTIONS

- **Technical Automation of manual operations**
- **Redistribution of points of data input**
- **Restructuring of Operation cycle**
- **Error Reduction**
- **Cost reduction**
- **Efficient omni-channel platform**

# A Store-ID based Confirmation System

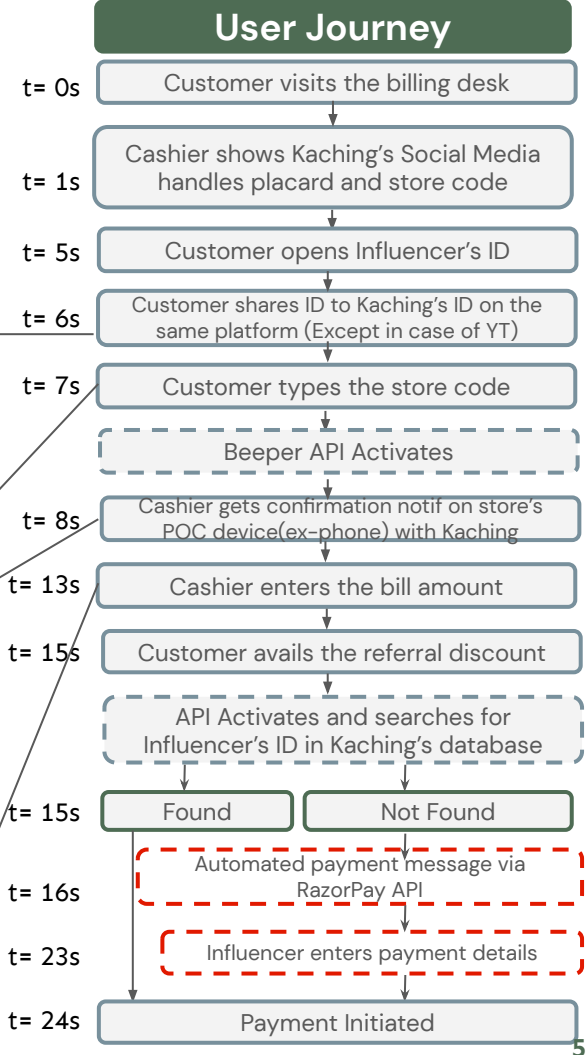
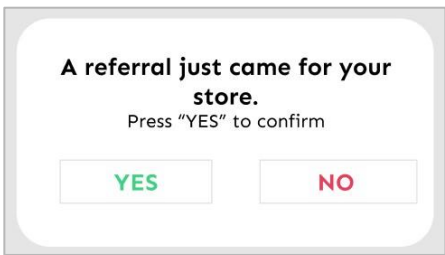
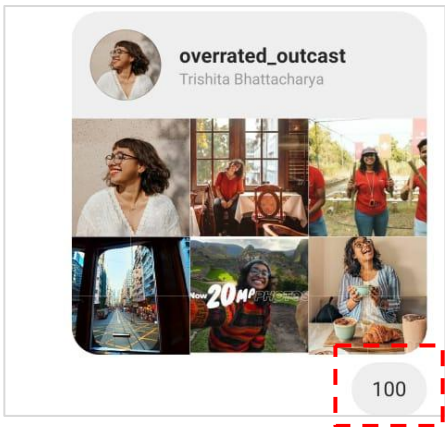
## Optimizing Part A,B,C

### How are the stakeholders affected?

Customer	+ Lesser wait time - Extra effort in sharing and inputting code
Store	+ Decreased cost as multiple devices not required in ecosystems such as restaurants. + Lesser effort as no need of scanning + Applicable on all data bandwidths
Kaching	+ Data in organized readable format available automatically + Decreased costs on Human resource. + Decreased tech cost as low storage required wrt to images. + Highly improved efficiency on both fronts due to manual effort elimination

### Effectiveness of solution

Parameter	Old	New
Efficiency	Low	High
Ease of Implementation	Manual and clunky	Low tech based & easy
Cost	High	Relatively low



# Website Signup functionality

## Optimizing Part A,B

Influencer can edit payment details anytime now! Wasn't possible earlier

### Register as an Influencer!

What should we call you?

Enter your social media handles here-

Select Payment Method

Enter Payment Details

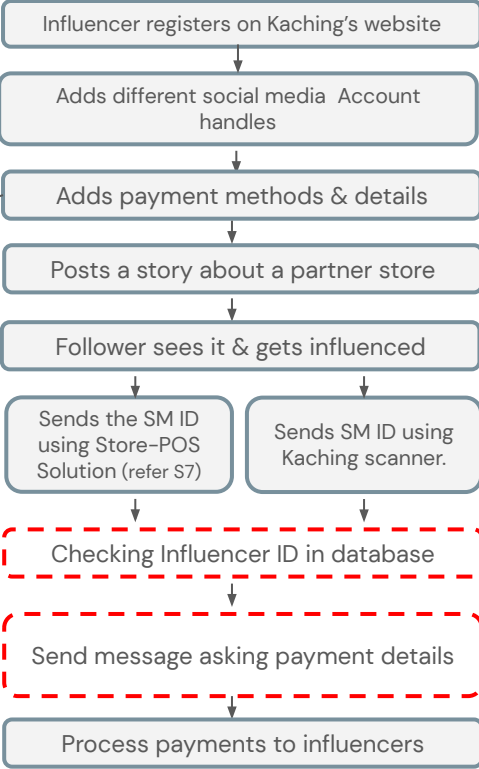
### How are the stakeholders affected?

Influencer	<ul style="list-style-type: none"><li>+ Can change his payment details at anytime.</li><li>+ Can use any new social media platform as well. Just has to mention it on website.</li></ul>
Kaching	<ul style="list-style-type: none"><li>+ No need to send message on SM asking for payment details (traceable on platforms- YT which don't support chat)</li><li>+ Now one payment method can be linked to all social media accounts of influencer.</li><li>- Need to add register page on website</li></ul>

### Effectiveness of solution

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### User Journey



Eliminated steps

# A Store-based POS System

## Optimizing Part A,B

The screenshot shows a mobile app interface with the following elements:

- Title:** Identify your Influencer!
- Location:** Roma's Cafe, Lanka
- Section:** Select the social media platform-
- Options:** Instagram, Snapchat, Twitter, Whatsapp, YouTube
- Section:** Enter the social media handle-
- Input:** @influencer
- Section:** Enter the Bill Amount-
- Input:** 0.00
- Button:** Done

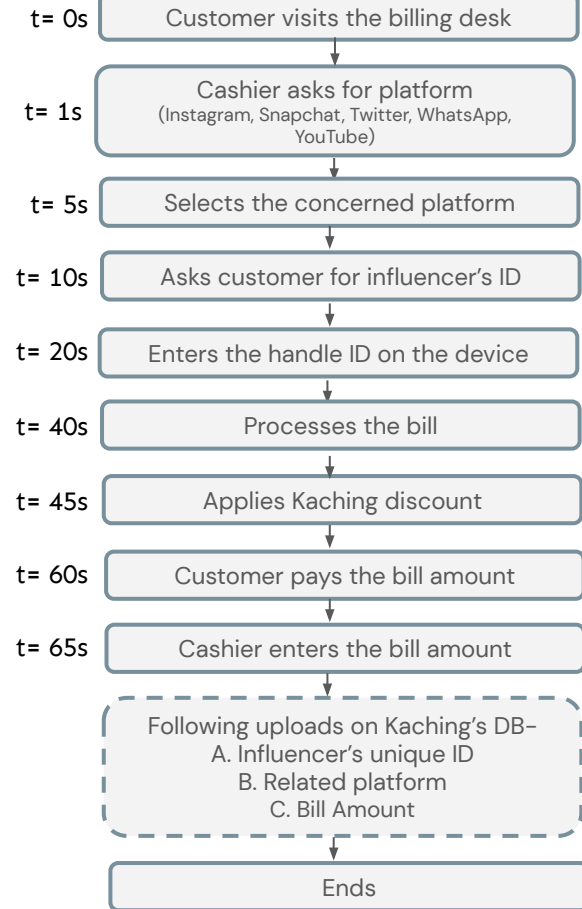
## How are the stakeholders affected?

Customer	+ <b>Less wait time</b> vs Same effort + <b>Better interaction</b> experience
Store	+ <b>Decreased cost</b> as multiple devices not required in ecosystems such as restaurants. - Increase in manual effort in Step 5.
Kaching	+ <b>Data in organized readable format</b> available automatically + <b>Decreased costs</b> on Human resource. + <b>Decreased tech cost</b> as low storage required wrt to images. + <b>Highly improved efficiency</b>

## Effectiveness of solution per user

Parameter	Old	New
Time	~105s	~65s
Steps	9	9
Workforce	5	1

## User Journey- Cashier



# A Store-based POS System

## Optimizing Part A,B

Hello @influencer,

Your friend just visited Roma's cafe you referred! Here is your reward from Kaching for the same :)

Please choose your preferred payment gateway via this link.

[paymentlink.razorpay.com](https://paymentlink.razorpay.com)

You'll immediately receive cash reward!



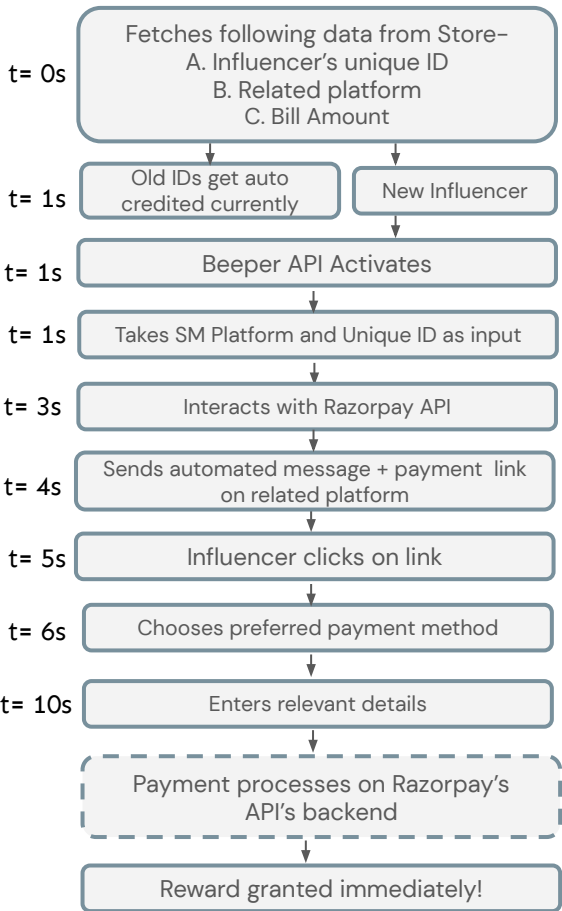
### Why Beeper API?

- Interoperable b/w different social media platforms on a single platform
- Gives access to various APIs which can help in automating the process of sending messages.
- Gives access to APIs which some other platforms like **texts.com** don't.
- Gives access to more social media platforms than other competitors like **messagebird.com**

### How are the stakeholders affected?

Influencer	<ul style="list-style-type: none"><li>+ Decreased in time of action</li><li>+ Increase in trust due to use of a certified payment gateway.</li><li>- Increase in 2 steps</li></ul>
Kaching	<ul style="list-style-type: none"><li>+ Increase in efficiency due to Decrease in Manual effort</li><li>+ Interoperability across platforms</li><li>+ Ease of access via one platform</li><li>+ Decrease in cost of human resource</li><li>+ ML-powered insights on payments</li></ul>

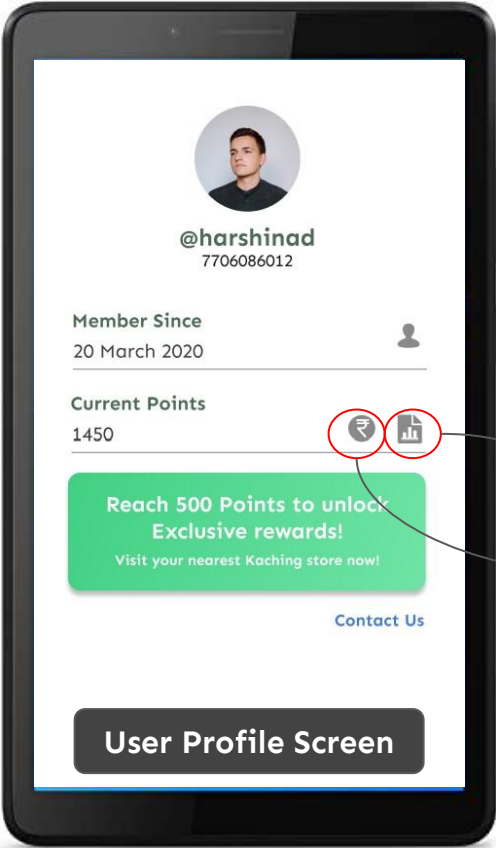
### User Journey- Kaching





# Loyalty Program

Optimizing Part A,B,C



**Welcome to Kaching Account!**

Mobile Number

OTP Received  15 s

Resend OTP

>

Contact number acts as unique ID with OTP login.

Acts as one time incentive to register

To view account report

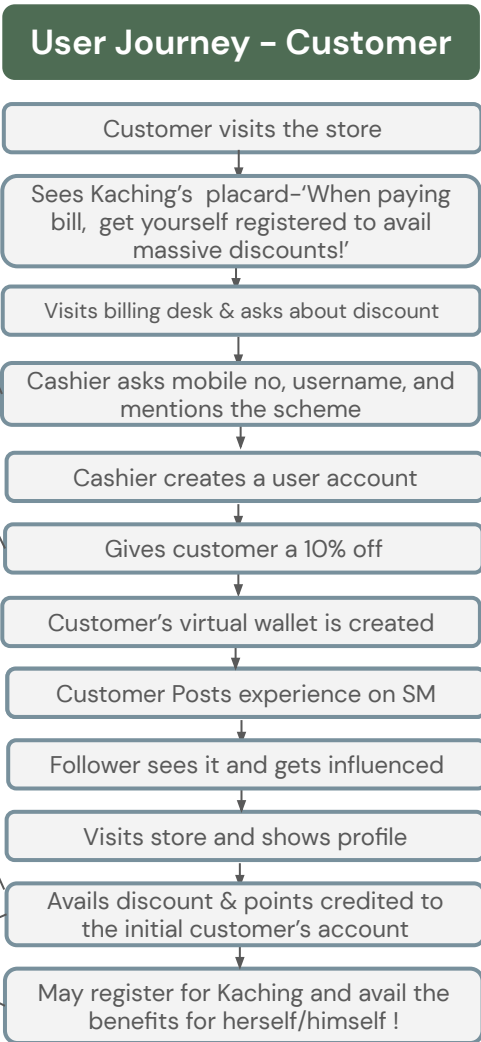
To transfer equivalent credit to linked bank account

- 1 Point = Re.1 discount at any partner store.
- Can be transferred as cash on any UPI wallet
- Optional rewards & cashbacks on certain points.

**System Requirements**

- login page on website.
- Redeem feature- When user taps on redeem a request is made to the bank which has APIs to store data and process safe transactions.

Creates a retention loop



# Loyalty Program

## Optimizing Part A,B,C

### How are the stakeholders affected?

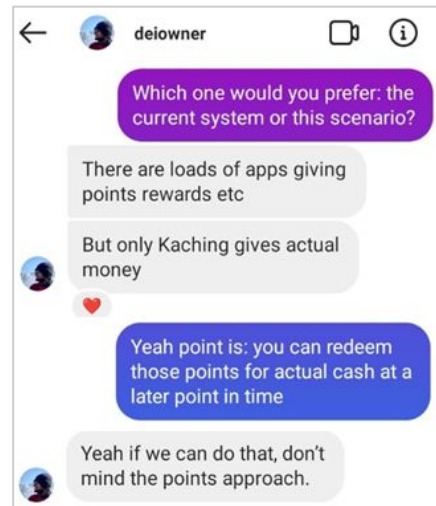
Kaching	<ul style="list-style-type: none"><li>+ Database of users with <b>key insights of users</b></li><li>+ <b>Increased retention of users</b></li><li>+ <b>Highly improved efficiency</b></li><li>+ <b>Autonomy</b> over process</li><li>- <b>Increase in tech costs</b> in maintaining user portals</li></ul>
Customer	<ul style="list-style-type: none"><li>+ <b>Better interaction</b> experience on the website</li><li>+ <b>Additional rewards</b>, along with the cash payoffs</li><li>+ <b>Extra 10% one time off</b> on registration</li><li>+ <b>Omnichannel communication</b> platform for feedback</li></ul>
Store	<ul style="list-style-type: none"><li>+ <b>Decreased cost</b> on maintaining the Kaching Scanner</li><li>- <b>Increase in manual effort</b> in maintaining a dashboard and registering users</li></ul>

### Effectiveness of solution per user →

Parameter	Old	New
Time	~105 s	~65s
Steps	7	9
Cost	High	High**

Can provide ML-powered business insights for growth as the network community grows

### Approved by Kaching influencer\* who prefers only cash!



### Kaching's Database Dashboard

USERNAME	PLATFORM	STORE	BILL AMOUNT	POINTS CREDITED	LIFETIME POINTS	TOTAL SALES DRIVEN
@influencer		Crystal Bowl	1563	50	480	5620
@kachingrocks		Ming Graden	840	35	255	2885

\*Contacted on Instagram as a part of survey

\*\*Initial high, but easily scalable.

# A CRM powered ChatBot system

## Optimizing Part B,C

### Automating Payouts!

#### Sounds complicated, but is it?

It is, but what if we used technology to replace Kaching's workforce with **ChatBots**, powered by **Financial Services CRM** tools. That's what essentially our solution is. Once the username (unique identifier) gets noted down in the database, the chatbots take over. How? We explain it here.

We **deploy the chatbot**, and on-demand execution (when UPI ID is not there in the database) can be done through open-source tools (e.g., **Jenkins**) through just a single request. The tool will take the username of the account as input, and the influencer can see the system's messages on his/her devices.

**Beeper acts as Chat integration tool.**

The reply sent goes through **ML pipeline (NLU engine, consisting of backend ML microservices)**. It then tries to **fetch UPI ID**, (XXXXXXXXXX@upi) & updates the database. Once the ChatBot updates the Database with UPI ID, **transaction against that username is initiated** with the help of CRM tools/third party APIs (e.g. **Stripe**).

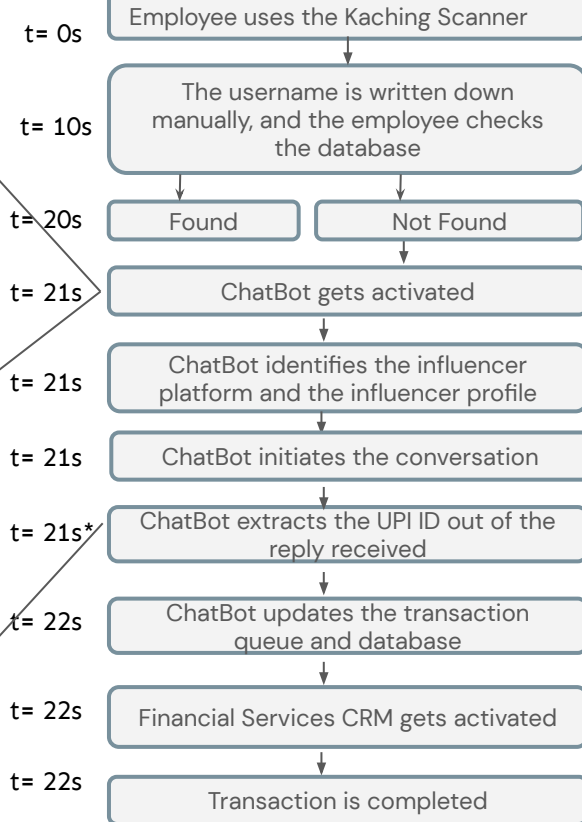
### Why Automation?

- + Data available in organized readable format
- + Decreased workforce costs
- + Easily Scalable
- + Highly improved efficiency
- + Very Quick

### Effectiveness of solution per user

Parameter	Old	New
Time	~105s	~22s
Steps	9	9
Workforce	5	1

### User Journey – Kaching



\*assuming the user replies without any delay

# Metrics & Prioritization

Goal – Process Optimization per stakeholder involved

	Key Performance Indicators	Utility	CTC	Ease of Implementation	User Experience
<b>Prioritized</b> <b>Store-ID based</b>	1. Average TAT 2. % Increase in organic growth of Kaching's SM	Extremely High	High	Low Effort	Customer does effort, but is incentivised
<b>Web Registration</b>	1. # Signups on website 2. % Increase in signups/month	Moderate	High	Low Effort	Influencer does effort
<b>Store-based POS</b>	1. Average TAT 2. Average # inputs per store 3. Avg Human resource per 100 rewards	High	High	Medium Effort	Input effort for store.
<b>Chatbot- CRM</b>	1. # Requests on chatbot 2. Average TAT 3. Avg Human resource per 100 rewards	Extremely High	Medium	High Effort	Manual effort at backend of scanner.
<b>Prioritized</b> <b>Loyalty Program</b>	1. # Signups on website 2. Monthly Active Users on website 3. Average wallet value growth / month ((New points added-points redeemed)/Avg value) 4. Average redemption value (per month) 5. % Points redeemed (per month)	High	Moderate	Medium Effort	User and store are involved in more steps. Eases job for Kaching





## Key Business Metrics

1. Avg # referrals per partner store.
2. % Increase in # influencers claiming referrals in partner stores.
3. Avg % increase in revenue of partner stores.

4. Avg referral counts per influencer.
5. Avg referral amount per influencer.
6. Increase in # partner stores.
7. % Increase in # influencers in database.

# Impact & Walkarounds

Goal - Maximum ROI on Cost, Effort, Human Resource for Kaching

	 <b>Cost</b>	 <b>Benefits</b>	 <b>Risks &amp; Pitfalls</b>	 <b>Walkarounds</b>
<b>Store-ID based</b>  Immediately Implementable	1. <b>Hardware-</b> Less than before with scanner elimination. 2. <b>Technical-</b> Cost of APIs incurred 3. <b>Human Resource-</b> Negligible due to automation	1. Can be implemented in a <b>short period of time</b> 2. <b>Doesn't involve change of user behavior</b> of any stakeholder. 3. Applicable <b>across all social media platforms</b> . 4. <b>Eliminates use of heavy tech</b> like NLP, Image recognition. 5. <b>Aligned with Kaching's vision</b> of no registration, QRs. 6. <b>Increased reach of Kaching's SM</b> 7. <b>Kaching's autonomy</b> on process 8. <b>Influencer needs not visit store</b>	1. Customer needs to make <b>effort</b> to share profile and store code. 2. Payment API requires influencer to open link which is drifting from <b>Kaching's USP</b> .	1. <b>Store-based POS system</b> for current process Part A. <i>(Refer Slide 7)</i> 2. <b>NLP-powered parsing</b> of current payment input method.
<b>Loyalty Program</b>  Long-term benefits & Implementation	1. <b>Hardware-</b> Less than before due to elimination of scanner. 2. <b>Technical-</b> Development costs 3. <b>Human Resource-</b> Negligible due to automation	1. <b>Elimination of misattributions</b> . 2. In long term, can create a <b>sustainable network of influencers</b> , aligned with Kaching's vision. 3. Forms <b>customer retention loop</b> . 4. Ripe with <b>potential marketing opportunities</b> . 5. Authentic Payment APIs to <b>counter trust issues</b> of influencers. 6. Database created can be used to drive <b>ML-powered business insights</b> .	1. Employs a <b>change of user behavior of stakeholders</b> involved. 2. Drifted a bit from <b>Kaching's no registration vision</b> . 3. Doesn't provide cash as incentive for <b>immediate user gratification</b> . 4. <b>Influencer needs to visit store</b> .	1. <b>Website registration based system</b> for current process part A & B <i>(Refer Slide 6)</i> 2. <b>Store-ID based system</b> 3. <b>Refund system</b> instead of wallet points on last cashless transaction of influencer via Razorpay.

# Conclusion

## A brief overview of vast potential of hybrid solutions

