SWIGGY

A PRODUCT CASE STUDY

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WHY SWIGGY?

Intuitive UI

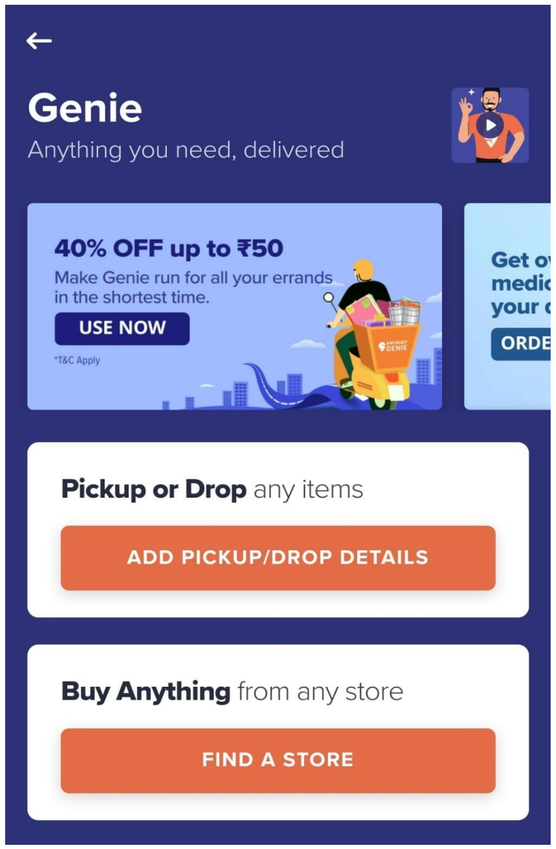
Recommendations acc. to time of the day.

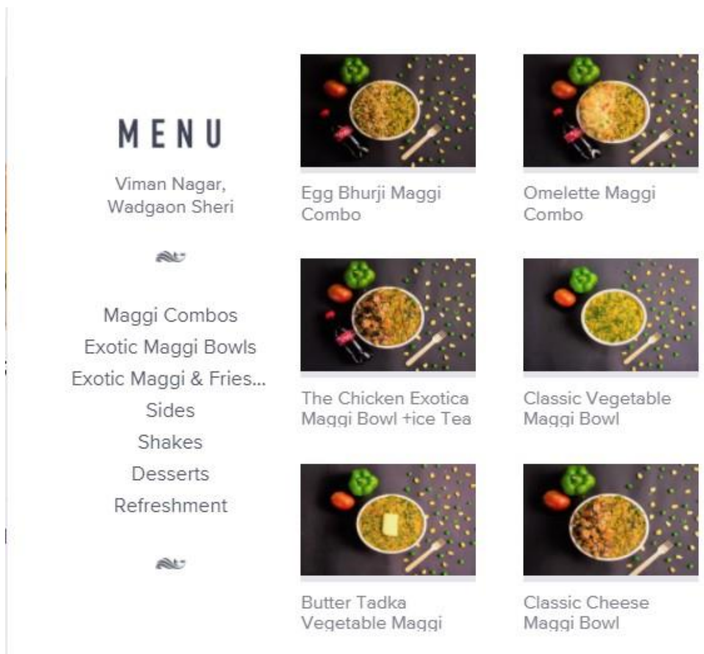
INSTAMART allows the user to get groceries with excellent deals and recommendations at good quality & low price.

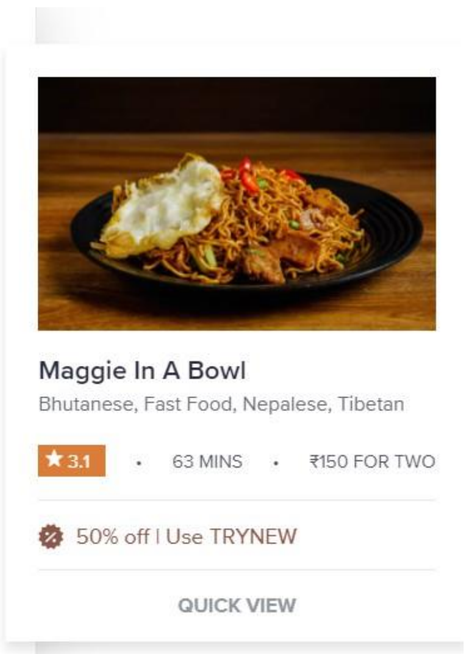
Easy to get my tailored clothes from across the city.

Send dad's lunchbox, items, documents!

Swiggy Genie helps user to buy a list of items from any store without stepping out of your house. Images can be seen of items to confirm and deliver!







Expanded Menu with similar dishes of your taste of that restaurant.

Updated cancellation policy is a plus point and allows user to cancel order within 60s after placing the order.

Review your order and address details to avoid cancellations

- If you choose to cancel, you can do it within 60 seconds after placing the order.
- Post 60 seconds, you will be charged a 100% cancellation fee.
- However, in the event of an unusual delay of your order, you will not be charged a cancellation fee.
- This policy helps us avoid food wastage and compensate restaurants / delivery partners for their efforts.

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PROBLEM & CURRENT USER BEHAVIOR

"Online food ordering is a time consuming chore. Despite the Advanced Recommendation System Swiggy has, an average user spends 30+ mins to decide the meal and restaurant. "

Journey I - "I know exactly what I want to have."

Total Time Taken ~1min

Search for Restaurant ~30s → Select dish ~30s → Place Order ~1s

Journey II - "I know what I want to have but unsure of restaurant."

Total Time Taken ~11.5min

Search for dish ~30s → Browse through options ~5min → Compare ~5min → Place Order ~1s

Journey III - "I have no idea what to have."

Total Time Taken ~36.5min

Scroll feed ~15min → Random Search ~10min → Browse through options ~5min → Compare ~5min → Place Order ~1s

USER PERSONA

Aditya Gupta
25 year old
Developer in Mumbai

Behaviours

- Self confessed foodie who can't bothered to make meals at home
- Orders food online 4+ times a week
- Spends 35-40 mins per order

Need for variety: Medium
Preferred delivery time: Low
Restaurant rating: High
Budget: Medium-High
Willingness to spend time: Low

PAIN POINTS

1. Decision Fatigue: I get confused about what to order when I do not know what I need.
2. Analysis Paralysis: I go back and forth between news feed and search to compare and shortlist.
3. Low Discoverability: Filters not as easy to use.
4. Time Consuming: User spends up to ~36mins on the app.
5. Authenticity: Sometimes the dish is not as satisfactory as the images shown.

USER INFLUENCES

1. Recommendation from Friends/Family: 95% users are more likely to try a dish after friends' recommendations.
2. Social Media: 80%users are more likely to buy a dish seen on social media apps such as Instagram.
3. Pictures: The human brain comprehends pictures 60,000 times better than words. ~17mins can be saved if user can visualize the dishes through images.

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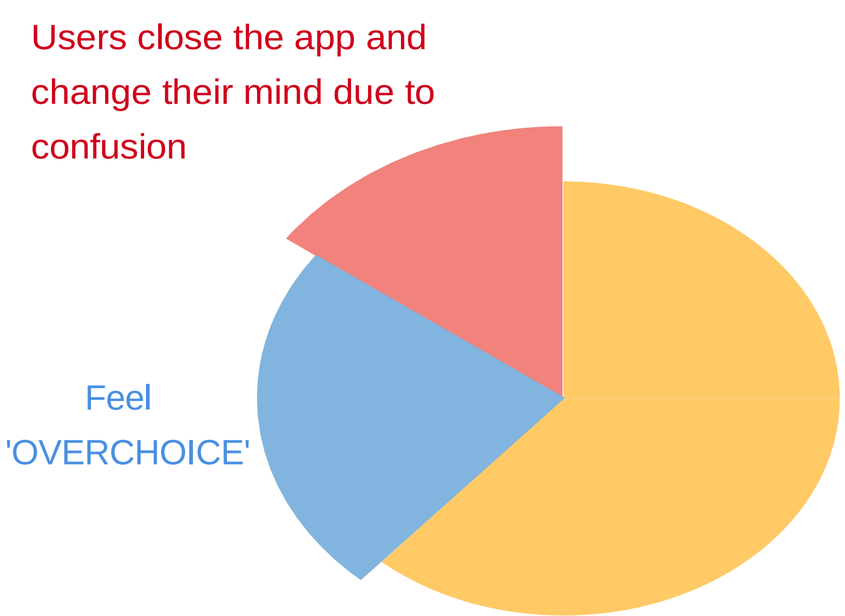
SCOPE OF THE PROBLEM

~200 million hours/year
spent in searching restaurants online.

~71% users
find ordering food online tedious and time consuming.

30+ mins
are spent on average to decide what to buy.



Existing Solutions and Why they are Ineffective?

Filters

Presently restaurants can be filtered only by 'Cuisines' and 'Offers and More'. Filters have a long list of cuisines and user needs to scroll a lot to filter restaurants.

Popular Cuisines

On the Search and Home page, Swiggy shows popular cuisines as a tag with plethora of options. But suggestions are largely based on purchase history and search history.

Recommendation System

Current Recommendation System using ML Algorithms such as collaborative filtering filters out dishes by searching a large group of people and finding a smaller set of users with similar taste. But note, each users' taste and food cravings are different at different times.

"A person spends more time on deciding the food and restaurant rather than enjoying the meal itself."

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SOLUTION I: INSTASWIGGY

Share your food experience with your friends and family.

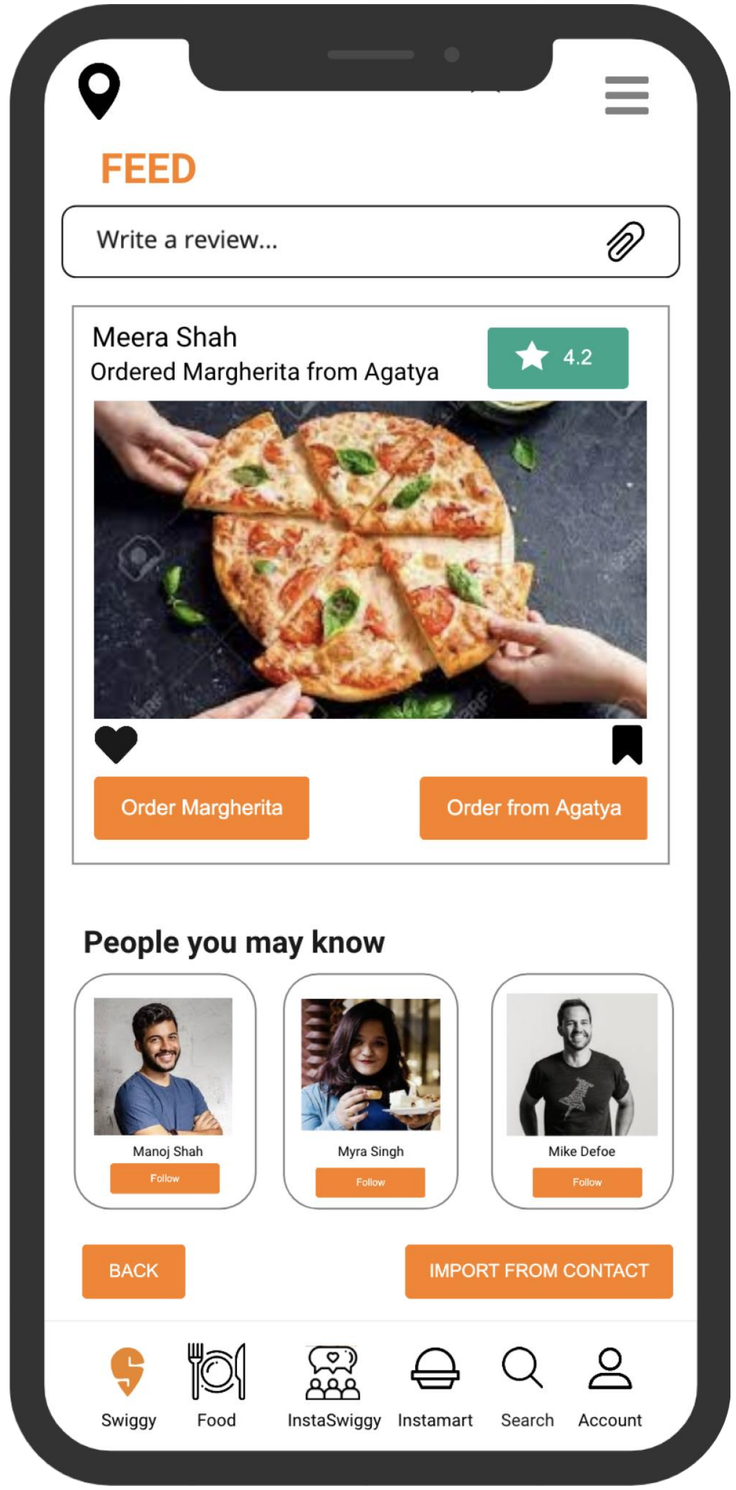
Post pictures and share reviews of your delivery.

Rate your experience on a scale of 1 to 5.

Follow your friends and family.

Follow bloggers near you and like and comment on their posts. Save their posts to order something similar next time.

"83% of buyers trust recommendation of friends and family more than marketing."



USER BENEFITS

- Time is saved.
- Peer recommendations.
- Like something that you see and order same dish.
- Stay connected with friends.
- Increases user satisfaction.

BENEFITS TO SWIGGY

- Drop out rate decreases.
- Enhanced customer experience by cutting down time.
- Achieving 2X growth in revenue, and number of orders by multiplying network.
- Consumer acquisition and retention increases.

"Recent study has shown people who take pictures of their food and post on social media enjoy their food more. This is associated with visual self-representation and therefore it shall increase over all customer satisfaction."

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SOLUTION II: SUBCONSCIOUS MENU

Introducing the Subconscious Menu, a digital menu that uses eye tracking software to assess where the customer is looking on the menu and then using a mathematical algorithm to determine which meal is most suited to their tastes from time spent.

USER FLOW

Setup and Callibration
User is first asked to set up callibration for eye movement tracking using front camera.

↓

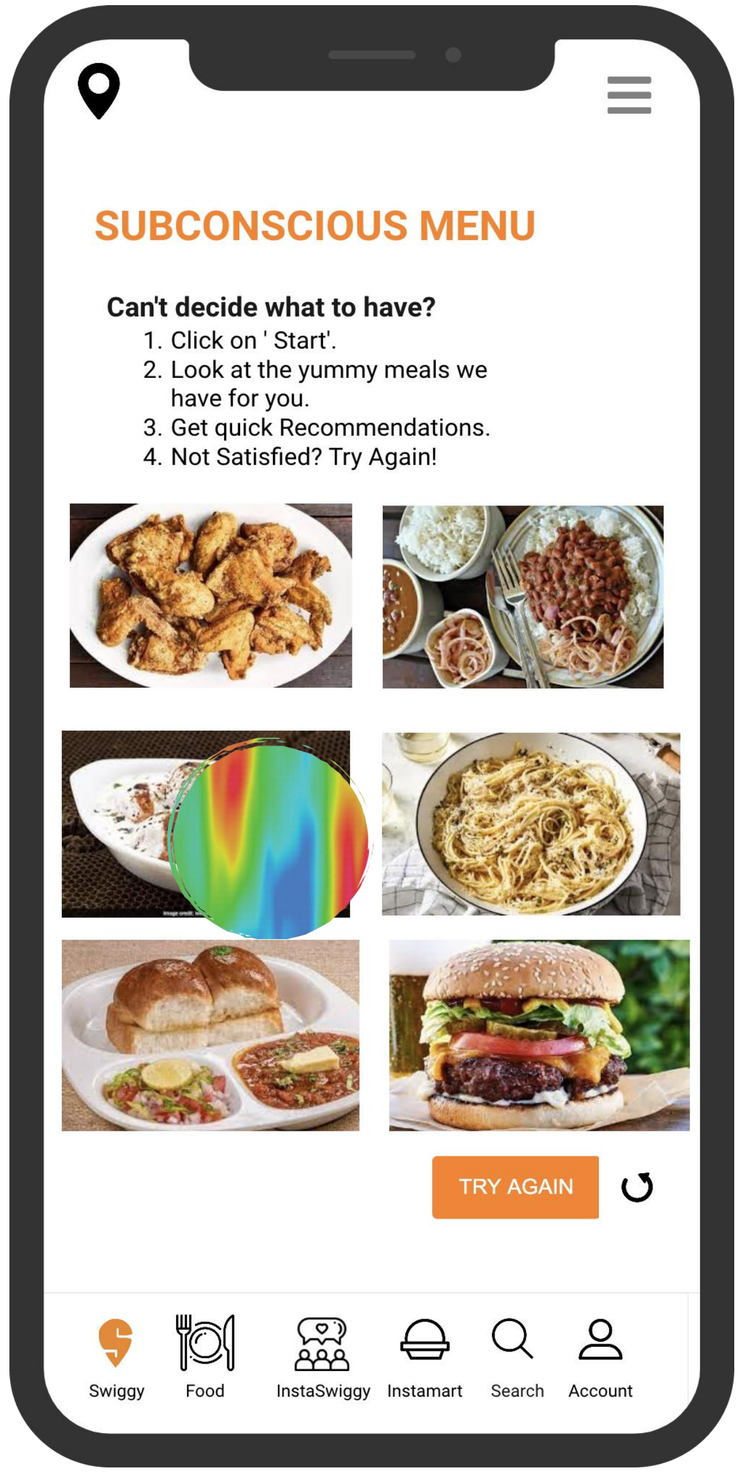
Subconscious Menu
User is shown images of cuisine and asked to look for ~ mins.

↓

Processing
Images are analysed using machine learning, image processing and modelling algorithms. Time spent on each image is calculated.

↓

Recommendations
Finally, result is provided of dish user craves for. Nearby restaurants serving that dish are recommended.



Heat maps are generated on the screen according to retina movements.

This technology predicts results with 98% accuracy in ~2.5mins post data collections.

SOLUTION III: SWIGGYSMART

SwiggySmart is a questionnaire based decision aid method that relies on Adaptive Choice Based Conjoint Recommender System.

Screening

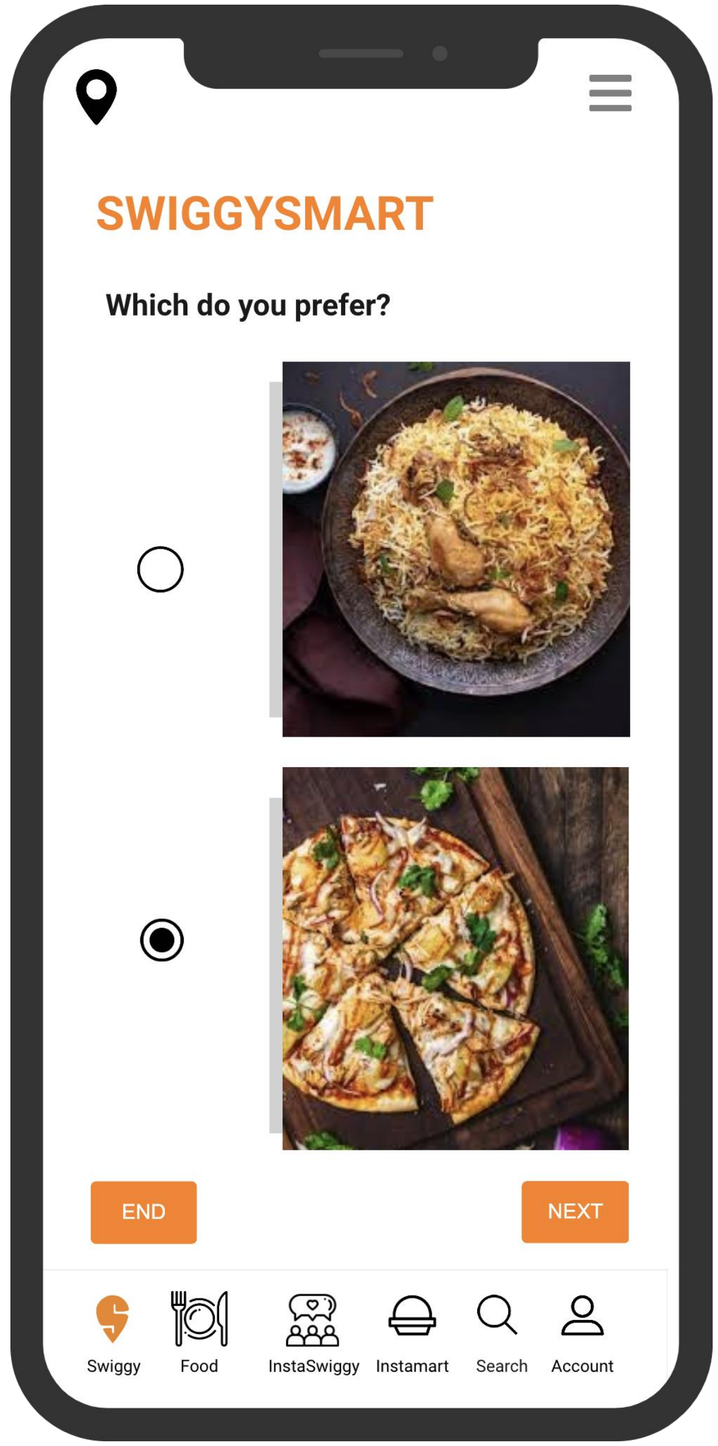
- User is shown attributes that affect their decision making such as Delivery time, Restaurant Rating, Cost for Two, Offers etc.
- For each attribute, user is requested to choose 'Unacceptable range' & 'Must have' levels.
- Screening values typically remain constant. Therefore, the user would have to enter only once.
- Screening values will act as comprehensive filters for restaurant recommendations at the end.

Selection

- After screening. the user will be taken to Choice Tournament screen where he/she is presented with two of cuisines/dishes per questions.
- User will be able to select only one option out of the two.
- Aim of the tournament is to understand trade-offs and eliminate choices.
- Options shown to the user are adaptive in nature. Eliminated choices are not shown in subsequent questions.
- User is asked to answer an optimum number of questions before reccs.

Recommendation

- Each attribute and attribute level is given a part-worth (assigned a numerical value).
- The part-worth of each cuisine/dish is calculated and the cuisine/dish that has highest part-worth is presented as the final recommendation.
- Restaurants serving these dishes are then shown after filtering based on the screening values.
- In case the user is not satisfied they can start the quiz again.



The current recommendation system that Swiggy uses is based on reactions by similar users and it relies heavily on purchase history. On the Internet, where customers are known to be impatient (Banister 2003) and where available information is often overabundant, the trade-off between search costs and decision quality might very well be exacerbated. It is crucial for Food delivery platforms to offer recommender systems to help their users search more efficiently. The proposed recommender system captures the mood and need of the user real time through a simple questionnaire. It especially helps the user to eliminate and navigate through a variety of options by reducing decision fatigue.

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PRIORITIZATION AND CHOICE OF FEATURE

We will apply **ICE** scoring model to determine the priority of the above three proposed solutions based on their relative values. We will use four parameters namely, Impact(I), Confidence(C) and Effort or Ease(E).

Parameters used for prioritization:

1. Effort to implement: Scale of 0-5 with 5 being highest
2. Impact: Scale of 0-5 with 5 being highest
3. Confidence about impact: 0-100%
4. Score = Impact * Confidence / Effort

FEATURE	EFFORT	IMAPACT	CONFIDENCE	SCORE	PRIORITY
INSTASWIGGY	2	4	50%	1	2
SUBCONSCIOUS MENU	5	4.5	90%	0.81	3
SWIGGYSMART	3	4.5	80%	1.2	1

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METRICS - SWIGGYSMART

We will track the following metrics to verify usability of SwiggySmart:

Acquisition:

1. Click-through rate for SwiggySmart.
2. Unique visitors per day.

Engagement:

1. Session time for SwiggySmart.
2. Bounce Rate for SwiggySmart.
3. Top Exit Pages.
4. Track Active Users.

Conversions:

1. Recommended vs Actual dish ordered.
2. Daily number of orders.
3. Average time spent to decide on an order (time from app open to placing the order).

Retention:

1. Churn Rate for Swiggy app.
2. Track feedback, ratings, reviews.

WHY IT MAY FAIL?

SwiggySmart's recommendation system is intended to be used along with existing recommendation system.
Potential pitfalls may include:

1. Users might perceive the feature as a 'survey' and be put off to engage with the feature every time.

2. Data provided by the user might not be sufficient, leading to inaccurate recommendations. There's a trade-off between optimum number of questions that need to be answered vs total time it takes to finish the tournament.

3. Complexity in implementation. Adaptive Choice Based Conjoint analysis requires a minimum and max number of attributes & attribute levels for it to work properly.

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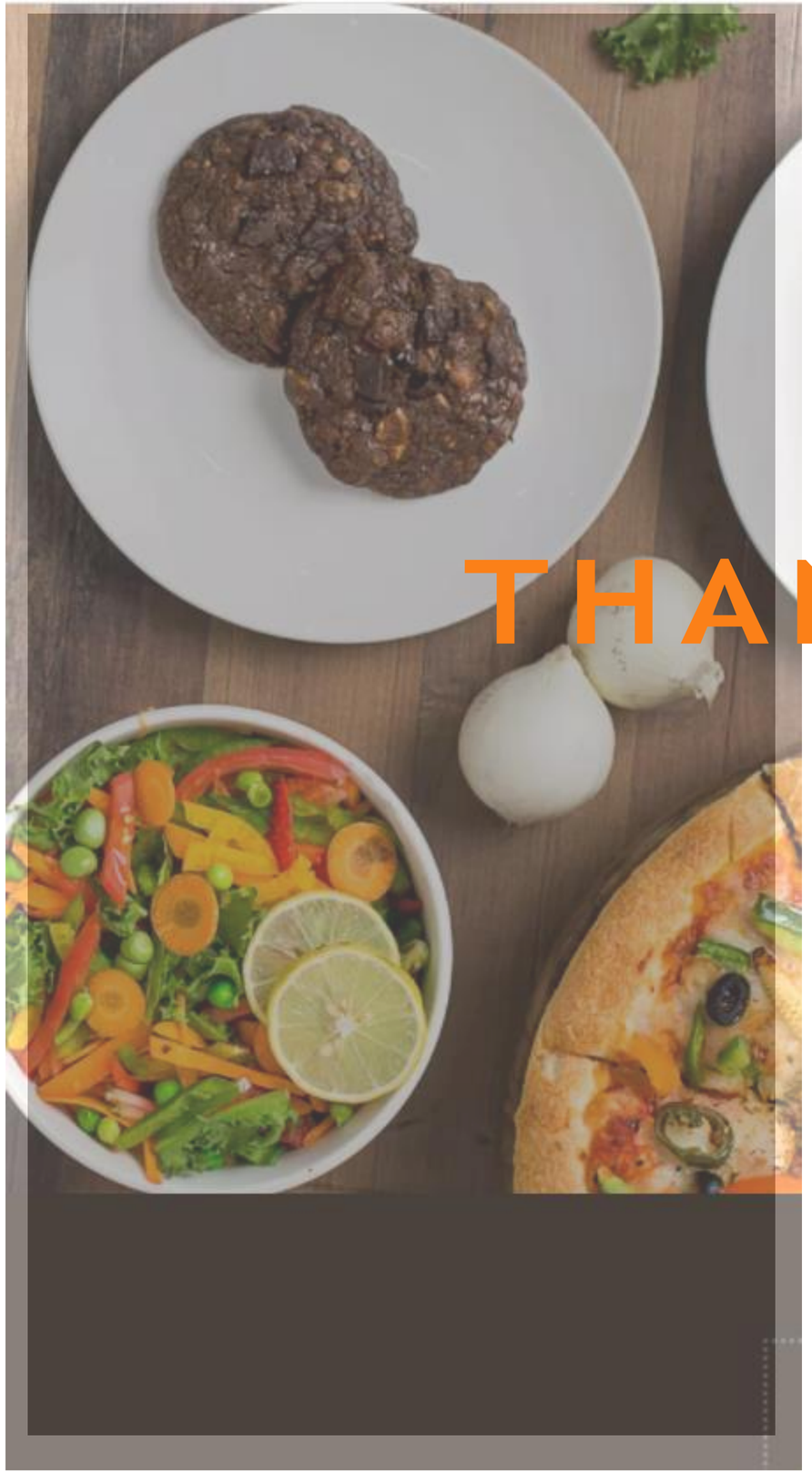

THANK YOU

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