Meet Fresh Need-Finding Report Group 4: Fenny Jin, Baomei Wen, Qiu Zheng, Yibo Wang, Yunying Liang, Yangfeng Peng

Abstract. This report includes the need-finding results using reviews observations, user interviews, and post-event protocols for Meet Fresh. The need-finding process investigates the needs and the pain points of ordering milk tea and desserts. The need for a recommendation system that can simplify and facilitate ordering was identified. The below provides a high-level summary of the need-finding exercises and results.

Need-finding execution 1: Reviews observations

Our first need-finding exercise was participant observation. We collected data from customer reviews and did some visualization as a start point of the need-finding process. Specifically, we focused on the negative reviews (with low ratings) to study the complaints, where we might seek a way to develop a recommendation system.

There are in total 9101 review data collected from yelp. These reviews covered 38 cities in 13 states. Ratings ranging from 1 to 5 show that 2749 reviews are negative (rating is 1 or 2) and 4929 reviews are positive (rating is 4 or 5). The average rating based on all reviews is 3.3.

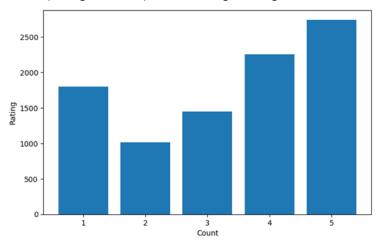


Figure 1.Rating counts

Looking at cities having more than 100 reviews, Chapel Hill is the best store, with the most positive reviews and the least negative reviews. Figure 2 is plotted in order of performance, ranging from good on the top to bad at the bottom. Figure 3 shows a word cloud in negative reviews. Some findings are listed below:

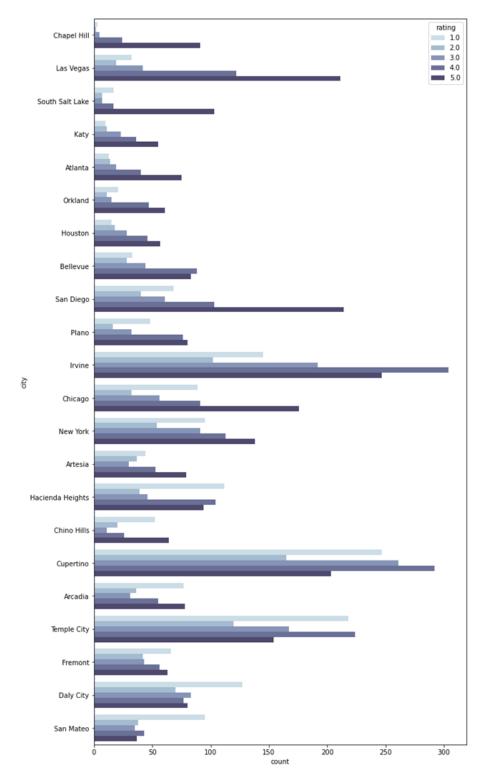


Figure 2.Rating counts for different cities



Figure 3. Word cloud of negative reviews

- Those words considering customer services, including "cashier", "staff", "customer service", "worker", and "manager" are mentioned in more than 50% of the negative reviews.
- 2) Waiting time is the second issue mentioned in most of the negative reviews. 43% of the negative reviews include words such as "minutes", "busy", "slow", and "wait". Some of the reviews are like:
 - a) "...We waited a good 30 minutes, and I was extremely sad to open my grass jelly to find a sad amount of barley and bits of mung bean."
 - b) "... The place is pick up only, we waited about half-hour after ordering. ..."
 - c) "... I ordered 2 mochis and a drink; it's currently 40 minutes of waiting for my order. ..."

Many people are unsatisfied with the waiting time, which indicates the need to develop a better platform for ordering.

- 3) About 15% of the negative reviews indicate the issue located in the menu. Those reviews include words such as "menu" or "ingredients". These reviews could read like:
 - a) "The rice balls, taro, and other ingredients were all absent...."
 - b) "We did not because you guys ran out of the ingredients and did not tell us about it. ..."
 - c) "... They had a limited menu selection when we visited and it was clearly not indicated on any menu. ..."
 - d) "... Their menu seems full of options but it's not as the majority of options available are limited on certain days. ..."
 - e) "I Used To come here once a while to get these grass jelly desserts. However I found out today they've changed their menu. ..."

These reviews majorly complained that the store was out of some items or ingredients that they did not update in the menu. The opportunity behind these complaints is a better platform with a real-time and better menu (ingredients).

In terms of recommendations, the reviews also indicate that the most popular items are (icy) grass jelly, red bean soup, and shaved ice, based on the findings in Figure 4.

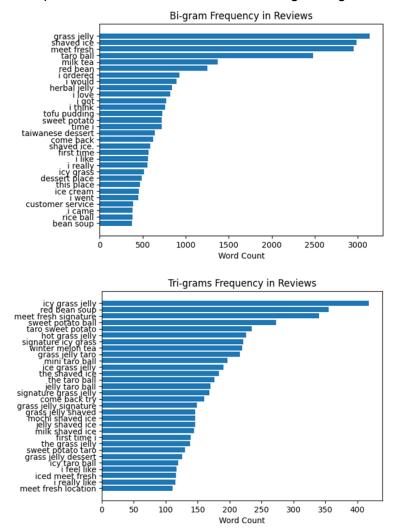


Figure 4. Bi-grams and Tri-grams word frequency in the reviews.

Need-finding execution 2: User interview

Workflow: form a script -> practice with group members -> add/edit for clarity -> finalize the script -> recruit users -> conduct user interviews -> summarize the results

Refined script:

- Greeting and brief intro to the interview
- Basic user info: age, gender, occupation, location, workstyle
- How often do you drink milk tea or have dessert?
- What is your favorite thing to order and why?
- Do you know about Meet Fresh? If so, how do you know?
- What is your preference of ording? Dine in or take out?

- When do you like to have milk tea or dessert?
- When you go, do you go there by yourself or go with friends?
- Are you buying for yourself only or for friends and family as well?
- How many items would you order per person?
- What is the budget per person for your order?
- What helps when you are ordering?
- When you order milk tea or dessert, do you eat it as a snack or do you treat it as a meal?
- Would you order anything else with milk tea?
- What is your motivation for going into a dessert shop?
- How has the pandemic impacted your food options?
- What is the most difficult part of placing an order?
- What could be optimized when placing an order?

Our second need-finding exercise was user interviews. We recruited users who have experience ordering at Meet Fresh and conducted the interview. We had 8 users for user interviews and 5 users for finding the post-event protocols. The results are summarized in the Data Inventory session.

Almost all the users are less than 30 years old, and reside in the urban areas. For their purchasing behavior, they usually purchase Meet Fresh on weekends and prefer take out. Each person purchases no more than three items at each time.

Half of users purchased the Meet Fresh at least once per week, another half at least one time per month. Six of eight users would use no more than 20 dollars to purchase these items, two users would use \$20-\$50. As for awareness, half of the users know about Meetfresh from their friends, three by themselves, and one from family members. Additional purchases with milk tea was inconclusive as the decision was split between yes, no and depends. Additional interviews may be needed to determine the need as it could be crucial to our recommendation system.

Almost all the users treated the food from Meetfresh as snacks. This indicated the importance of portion to the customers. There is an equivalent amount of users who like to go to Meet Fresh or similar places by themselves and with friends. Users go to the brick-and-mortar store only exclusively for purchasing. This contradicted our initial assumption that a dessert shop could be a place for socializing. However, the user's choices have been singular under the influence of the pandemic and could change post-pandemic.

When it comes to decision making, pictures of the items play the most crucial influence for users. Almost all the users said pictures help them make decisions. Descriptions and prices are not the top priority, but still helpful. Half of the users claimed that descriptions and prices helped.

Overall, the users are satisfied with the product they purchase at Meet Fresh and have made regular visits to the store. When placing an order, the portion size, pictures and descriptions are the most influential factors.

Avoiding the bias

To avoid biases, the questions were designed to be open-ended and semi-structured. The script provided structured guidance for the interviewers, however, the interviewers did not have to strictly follow the order. The conversations were interactive and the users asked questions for clarification. The interviewers only took notes of the key points of the conversations. Additionally, the interviewers are not affiliated with meet fresh and we intentionally avoided mentioning our intention to develop the recommendation system for Meet Fresh when doing the interviews.

Need-finding execution 3: Post-event protocols

After user interviews, we asked the users to go to the Meet Fresh website and app to experience the ordering process and collected the feedback and pain points in 1-3 days. The personal and practical experience helped them get first hand information about pros and cons of the website and app during the ordering process. I also asked the users to keep exploring the website and app when they are available. After multiple experiences, they gave me more interesting feedback points.

We didn't recruit new users for this activity as it will take much more time to collect the information we wanted. One benefit of using the same users is that they will focus on the topics and questions we discussed, which makes their feedback more relevant and reliable. But meanwhile, this could introduce some potential bias. As we are going about needfinding, we want to make sure we take a broader approach, understanding the entire problem space with interests, not just focus on narrowly under user direction particular interface. We could actually draw some very useful insights based on the users' feedback. The major feedback points are listed below:

- Most popular items recommendation, new items recommendation on the home page.
- Daily deals recommendation, every day specials recommendation on the home page.
- No size options for most series (signature series, grass jelly, red bean soup and teas).
- Scroll down very long to check all the items, sliding left to right may be a better choice.
- No price on the main menu, no calories or confusing calorie labels.
- Boost recommendation means and ways (like WeChat official account) to increase the population of the potential users.
- Increase regional flavored new items to attract more users.
- No pick-up time options except asap when you check out by using a mobile app.

In conclusion, the feedback and pain points mainly focused on the recommendation system of the items and design drawbacks of the website and app. The users also provided some perspectives which could enhance and boost the profit of the business in the future.

Data inventory

Table 1 data inventory contains the synthesis from user interview and post-event protocols. The results of the interview also include pain points and user expectations. All recruited users are experienced customers and have had experience ordering them on a regular basis. The bias in the user interview is that the users recruited are affiliated with the interviewers. We were not able to interview users with diverse ethical backgrounds due to the accessibility of these users in a global pandemic.

Table 1: Data Inventory from need finding 2(user interview) and 3(post-event protocols)

	Details	User #1	#2	#3	#4	#5	#6	#7	#8
Who	Age	28	29	28	45	30	29	29	27
	Gender	Male	Male	Female	Female	Female	Female	Female	Male
	Occupation	Working professional	Working professional	Lawer	Financial Analyst	Postdoc	Student	Student	Working professional
	Location	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Rural
	Commute or WFH	WFH	WFH	Commute	Commute	Commute	Hybird	Mostly WFH	WFH
Context	Frequency	2 times per week	once every 2 months	4-5 times per week	once per week	more than 1 times per week	once per week	twice per month	once per month
	Specific visiting time	Saturday AM	After work	After meal	weekends	weekends	weekends	weekends	weekends or weekday night
	Perference and reason	Pastry and milk tea	Thai tea	Red bean soup	Double Taro	Icy Taro Ball Series	Icy Taro Ball Series	Hot milk tea	Non-sweet tea
	Budget	\$10 - \$15	\$5	< \$15	\$30-45	\$20-\$50	\$10-\$20	\$10-\$20	\$15
	Where do you know about meetfresh?	Friends	Friends	Friends	Family	By myself	By myself	By myself	Friends
	Dine in/Take out	Take out	Both	Dine in and take out	Take out	Take out	Take out	Take out	Take out
	Snack with milk tea	Depends	No	Yes	Yes	No	Yes	Sometimes	No
	items to order per person	1-2	1	2	1-2	>3	2 to 3	2	3
Goal	Snacking		Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Meal	Yes							
	By yourself	Yes	Yes	Yes				Yes	
	With friends	Yes	Yes	Yes		Yes	Yes		Yes
	Purchasing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Socializing								
Need	Pictures help?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
	Descriptions help?	Yes	Yes		Yes		Yes	Yes	
	Price help?		Yes	Yes	Yes	Yes	Yes		
	Waittime estimator	Yes							
Pain points	too many options	Yes			Yes	Make the purchase in store	Yes		
	long lines prior to ordering		Yes	Yes				Yes	
	not enough descriptions	Yes	Yes						
	reduce food waiting time		Yes	Yes					

Defining Requirements:

Based on the results of user interviews and post-event protocols, we are quite confident in our original idea about building a recommendation system which should meet users' needs in a fast, simple, concise way. We will consider 1) Most popular items recommendation 2) Daily deals/promotions recommendation 3) New items recommendation 4) Every day specials recommendation.

Continued need-finding:

The design is a life cycle from needfinding to brainstorming design alternatives to prototyping to evaluation. Needfinding on its own can be a cycle by itself. We would like to carry on the second round of user interviews when the time is right. This time we will more focus on quantitative questions like:

- What items do you want to be recommended to you every day?
- What new items do you want to launch?
- What daily deals do you think would be good and useful?

We can even browse other websites and apps to inspire more thoughts and ideas. We may have some surprising gains.