

# Survey Report

## District Market Shopping Experience

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## Goal and Context

### Motivation

Previous field and interview research has been conducted relating to the District Market shopping experience. Interview research focused on the question, *How can the experience of getting meals at the District Market be improved for students?*

The three findings from interview research were:

1. Participants indicated dissatisfaction with the amenities provided for meals from the DM, including the range of options, freedom of choice, flavor, and heating their food.
2. Participants indicated experiencing inconvenience with the layout of the hot food bar, including the double-layered bar on north campus, worker service on west campus, and prompting for utensils.
3. Participants indicated experiencing inefficiency with the store layout with respect to the meal sections, including space to form lines and walk around the area reserved for the food bar, as well as traffic across different parts of the store.

Findings from field and interview research emphasized the relative popularity of fresh and hot meals among DM store items, and also the ways in which the current layout and provisions of those sections were inefficient or inconvenient.

### Design Question

We conducted survey research to address the question of *How can the experience of getting meals at the District Market be improved for students?*

### Research Questions

The following research questions help build on the findings from field and interview research and structure the survey research to answer the design question.

- Are customers able to find meals that they can eat in their diets and enjoy eating?
- How do customers feel about the variety of the options that the DM offers?
- Would customers use a bulk serving sauce station in the DM to customize their meals?
- Would customers use a microwave in the DM to heat their meals?
- Are customers inconvenienced by the placement of the bins in the hot bar?
- Are customers inconvenienced by the way utensils are currently distributed?
- How often do customers wait in line for their meals?
- Do customers prefer a self-serve hot bar or to be served by a worker?
- Do customers visit meal sections more often than snacks and ingredients sections?

## Methods

### Participants

15 participants were recruited through online messaging platforms and communication servers. The survey was also given to some participants through direct communication on site at the DM and in other settings. The inclusion criteria were 1, the individual is a student, and 2, the individual has used the DM before. The exclusion criteria were 1, the individual is not a student, and 2, the individual has not used the DM before. Most participants whose identity was known were undergraduate students of various years and living situations at the university. All participants satisfied the inclusion criteria, which was confirmed through contextual information, direct questioning, and preliminary questions within the survey form.

### Approach

The survey was conducted through Google Forms. This was chosen because it was a form tool with which participants were most likely to have the highest degree of familiarity among various well known survey tools. The survey consisted of 10 questions, with 2 being multiple choice, 1 rating, 6 ranking, and 1 open ended, that could be completed within 5 minutes.

### Topics

Participants were asked opening questions to establish context regarding their usage of the DM, and then questions relating to the findings from interview research in order to test the validity of the existing findings for a wider group of participants and confirm, explore, elaborate, or extend concepts from the research questions. The survey questions used can be found in Appendix 1.

### Data Recording and Analysis

Survey data was tabulated in a spreadsheet, and the data was then analyzed using various data visualization techniques in connection to the overall design question. The responses for the open ended question were analyzed by extracting overall trends and specific quotes from the responses that provided detail in accordance to the trends. The findings produced were used to inform relevant recommendations.

## Results and Recommendations

### Finding 1

Label: Greater variety of options

Description

Participants indicated a lack of satisfaction with the variety of options offered. Participants generally indicated satisfaction with their enjoyment of the food options provided, in contrast to the findings from interview research. This provided data towards the research questions *Are customers able to find meals that they can eat in their diets and enjoy eating?* and *How do*

*customers feel about the variety of the options that the DM offers?*, refuting findings for the former and confirming findings for the latter.

#### Evidence

- Q3, “I am able to find meals at the DM that I can eat in my diet and enjoy eating.”, yielded 5 Agree and 4 Strongly Agree responses out of 15, indicating 60% agreement responses.
- Q4, “I am satisfied with the variety of the options that the DM offers.”, yielded 1 Strongly Disagree and 5 Disagree responses out of 15, indicating 40% disagreement responses.

#### Recommendation

- Offer a rotating and wider range of options, especially at the hot bar. Include more items that can be eaten with a wider variety of diets. For example, among the 4-5 meat options, some can be rotated with more vegetable options.

### **Finding 2**

Label: Provide ways to customize eating

#### Description

Participants indicated strong trends towards agreement for enjoying being able to heat and flavor their food, which confirmed findings from interview research related to the research questions *Would customers use a bulk serving sauce station in the DM to customize their meals?* and *Would customers use a microwave in the DM to heat their meals?*.

#### Evidence

- Q5, “I enjoy being able to customize my meal with condiments.”, yielded 7 Agree and 4 Strongly Agree responses out of 15, indicating 73% agreement responses.
- Q6, “I like to heat up my meal before eating it.”, yielded 7 Agree and 5 Strongly Agree responses out of 15, indicating 80% agreement responses.

#### Recommendation

- Provide bulk sauces for people to flavor their food. Sauces can be used to customize their food to their tastes, and people who prefer less strong flavors or different flavors still have the option. Bulk sauces prevent unsustainable waste from small individual packaging.
- Provide microwaves for people to heat up their food. Ideally multiple microwaves would be provided, but even one would allow people to heat up their food at all. More microwaves could reduce crowding and wait times, but would also be a greater investment.

### **Finding 3**

Label: Self-serve hot food bar

## Description

The North DM has a self-serve hot food bar, and the West DM hot food bar is served by a worker. Participants indicate that they prefer the self-serve style for its convenience, choice, and portion control. Additionally, self-serve means fewer people handle their food. This finding provides data towards a response to the research question *Do customers prefer a self-serve hot bar or to be served by a worker?*, which was inconclusive after interview research.

## Evidence

- Q10, “What style of service do you prefer for hot meals and why?”, yielded 12 (80% of) responses indicating a preference for self-serve, 1 worker service, 2 prepackaged, 1 no preference. Reasons for preferring self-serve included
  - “fast”, “easy”, “convenient” (P4, P8, P10, P15),
  - “I get to choose how much I want of each” (P1, P9),
  - “easily customizable without having to give someone else a bunch of little directions” (P1, P4),
  - “it’s also hard to mess up your order” (P10), and
  - “there are less people I don’t know handling my food” (P9).

## Recommendation

- The West DM hot food bar should be made self-serve like the North DM is already. This would allow more freedom of choice and quantity and faster and more easily controlled service. This would also have the effect of making the shopping experience across the two store locations more aligned, which could help inform customers’ expectations when visiting either location.

## Prioritization

Findings were prioritized in order of scale of investment needed to enact the recommendations. Providing more food options involves adding to the existing supply chain for ideating and creating meals. Providing microwaves and condiments would require appliance purchases, as well as creating a space for the items to be stored and used. Converting the West DM from worker service to self-serve could involve a restructuring of the entire hot food counter, which could be costly.

## Discussion

### Summary

The three findings from survey research were:

1. Participants want a greater variety of options, but do enjoy the limited options provided.
2. Participants like customizing their eating experience by flavoring and heating their food.
3. Participants prefer to use a self-serve hot food bar.

The only type of item that had a frequency for use that was noticeably skewed was Snacks (eg chips, granola bar, etc) to the right (positive skew), indicating that snacks are the most popular type of food items at the DM, and other food item types were less popular and generally more similarly popular to each other.

Findings on hot bar bin placement and prompting for utensils were inconclusive.

The survey data yielded new information that clarified recommendations from field and interview research. In contrast to interview research, survey research provided quantitative data that is more likely to be less impacted by individual perspectives, revealing larger trends.

### **Future Work**

While survey research indicated that customers may enjoy having options to customize their food, there may still be factors that would prevent them from using such options even if they were provided to them. For example, being in a rush or not being willing to use contaminated condiment bottles or microwaves could be limiting factors. Therefore, further research can be conducted to learn more about how participants might interact with these proposed provisions.

The relatively small amount of data that was collected meant that it would be difficult for analysis across questions to yield significant trend results. Further research could collect more data from a wider and also potentially more representative sample, as well as data from different time points throughout the school year, which could offer interesting insight.

### **Reflection**

Conducting survey research shares the skills of refining question phrasing and sequencing from interview research, but also involves data visualization and interpretation in a quantitative way that is different from the data that interview research yields. Participant commentary on question and answer choice formulation was informational beyond addressing the design question, and instead aiding improvement of survey research skills towards future work.

## Appendices

### Appendix 1. Survey Materials

#### Survey Questions

Please provide answers to each of the following questions that accurately reflect your experiences.

1. [Multiple Choice] Are you a student? Y/N
  - a. Rationale: To ensure inclusion criteria are met.
2. [Multiple Choice] Have you purchased items from the DM before? Y/N
  - a. Rationale: To ensure inclusion criteria are met.

Please provide answers to each of the following questions that accurately reflect your experiences.

1. [Multiple Choice] How often do you visit the DM?  
Only occasionally, A few times a week, Once a day, Multiple times a day
  - a. Rationale: How do customers' purchase habits vary with the frequency of their visits?
  - b. Analysis: histogram; trends for other questions across selections for this question
2. [Ranking] Rank how often you purchase each type of item, from most to least common. Boxed meal (eg alfredo, teriyaki, etc), Hot meal, Soup, Vegan boxed meal (eg japchae, curry tofu, etc), Salad box, Sushi, Snacks (eg chips, granola bar, etc), Ingredients (eg bread loaf, spices, produce, etc)
  - a. Rationale: Do customers visit meal sections more often than snacks and ingredients sections?
  - b. Analysis: average score for each option, where 1 is most common; trends/themes for rating and open ended questions across rankings for this question

[Rating] Select the number that best represents how you feel about the following statements.

1 Strongly Agree, 2 Agree, 3 Neutral, 4 Disagree, 5 Strongly Disagree

Analysis: average score per question and across questions

3. I am able to find meals at the DM that I can eat in my diet and enjoy eating.
  - a. Rationale: Are customers able to find meals that they can eat in their diets and enjoy eating?
4. I am satisfied with the variety of the options that the DM offers.
  - a. Rationale: How do customers feel about the variety of the options that the DM offers?

[Rating] Select the number that best represents how you feel about the following statements.

1 Strongly Agree, 2 Agree, 3 Neutral, 4 Disagree, 5 Strongly Disagree

Analysis: average score per question and across questions



5. I enjoy being able to customize my meal with condiments.
  - a. Rationale: Would customers use a bulk serving sauce station in the DM to customize their meals?
6. I like to heat up my meal before eating it.
  - a. Rationale: Would customers use a microwave in the DM to heat their meals?

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7. [Multiple Choice] How often do you wait in line for a meal, ie at the hot bar or soup bar?  
Not applicable, Never, Rarely, Sometimes, Often, Always
  - a. Rationale: How often do customers wait in line for their meals?
  - b. Analysis: histogram

[Rating] Select the number that best represents how you feel about the following statements.  
Not applicable, 1 Strongly Agree, 2 Agree, 3 Neutral, 4 Disagree, 5 Strongly Disagree

Analysis: average score per question and across questions

8. I feel that the bins in the hot bar being placed behind each other is inconvenient.
  - a. Rationale: Are customers inconvenienced by the placement of the bins in the hot bar?
9. I feel that being prompted for utensils at the register is inconvenient.
  - a. Rationale: Are customers inconvenienced by the way utensils are currently distributed?

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10. [Open Ended] What style of service do you prefer for hot meals and why? (eg self-serve, service by a worker, select from pre-packaged options, etc)
  - a. Rationale: Do customers prefer a self-serve hot bar or to be served by a worker?
  - b. Analysis: themes, outliers

### Survey Link

<https://forms.gle/XrJnRVsvrPcbwdMv9>

## Appendix 2. Data and Analysis Materials

### Data and Analysis Link

[https://docs.google.com/spreadsheets/d/1T4VwcHU0fcwPMskm6yDYMVUaVvo5pfY\\_1hRCsqEfAS4/edit](https://docs.google.com/spreadsheets/d/1T4VwcHU0fcwPMskm6yDYMVUaVvo5pfY_1hRCsqEfAS4/edit)

### **Appendix 3. Presentation Materials**

#### **Survey Report Presentation Slides Link**

<https://docs.google.com/presentation/d/1wfKDzWUxj75gPCzoTRy5rs3mR3VebBcIUdSYfE5XGqU/edit>