ProjectM
Team 10

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This project focuses on the task of a user going to a store to shop for items. Online shopping notwithstanding, the current user experience can be less than ideal for shoppers going into a new physical store to shop for items and this project aims to improve that experience for both novice and veteran shoppers alike.

Introduction

This project expands on the work performed by Dajiba Patel in the Assignment M series. An original interface was designed for traditional in-store shoppers to find goods in stores more easily.

Needfinding Planning

User Types

We have identified 3 types of users for this tool:

1. Store customers (regular people who visit stores to purchase goods for themselves)
2. Professional shoppers (Instacart shoppers)
3. Store owners

Store customers and professional shoppers are customers who would use the interface created in the first design iteration for this task.

Store owners are a different type of user with different needs. Buy-in from store owners will be needed for this application to succeed. Store owners will play a part

in ensuring that the interface can remain updated with consistent information about store products.

Needfinding Plan 1 - Surveys for Store Customers

Store customers were the target audience for needfinding in the first interface design iteration. We will use these surveys to ask more targeted questions that will drive the design of the interface.

The goal of this survey will be to better understand shoppers' current practices when shopping in stores. The questions asked will reveal how frequently they carry their smartphones (key to being able to use an app-based interface), how often they look for new items, how much time they spend looking for those items, how frequently they ask for help, and how helpful they find the help. We will also ask shoppers what they think will help improve their shopping experience.

Data Inventory Items

In the first iteration of this interface design, we identified who the users are (shoppers), where they are (in stores), the context of their task (busy focusing on finding their items and navigating the store), their goals (buying the items on their shopping list), and their task (buying items).

We will use the surveys below to identify the remaining data inventory items (the user's needs and their subtasks).

Biases

With surveys, we may encounter a number of potential biases: confirmation bias, observation bias, voluntary response bias, and recall bias all present potential issues.

Confirmation bias poses a risk at the survey review phase. I can limit the impact of confirmation bias by collecting as much empirical data as possible from the respondents and leaving questions open-ended, inviting them to provide information that's not aligned with my questions. Once in the data-review phase, we will specifically seek out information that contradicts our pre-existing notions.

Observation bias poses a risk at the survey design phase. We may design a survey that aligns too closely with my specific beliefs about shopping. We will limit this impact by scripting the survey as neutrally as possible.

Voluntary response bias poses a risk to our survey, as users more excited about shopping (in either direction) are more likely to respond. We will limit this impact by avoiding showing questions to users until they've begun the survey.

Recall bias poses a risk to my survey at the response phase. Respondents may not have shopped recently (or may not have shopped for new items recently). We can limit this impact by inviting respondents to consider their recent previous experience shopping.

We created the following survey questions (with the summary below):

The following questions pertain to your shopping experience at grocery stores (Kroger, Publix), wholesale clubs (Costco, Sam's), department stores (Walmart, Target), and hardware stores (Home Depot, Lowes). Please describe your experiences at these stores.

1. How often do you plan to buy new items that you haven't purchased before?
   a. Always
   b. Often
   c. Sometimes
   d. Rarely
   e. Never
2. On average how much time do you spend searching for specific items you're unable to locate? (in minutes)
   _____
3. Describe your agreement with the following statement: In general, I am consistently satisfied with my current shopping experience.
   a. Strongly Agree
   b. Agree
   c. Neither
   d. Disagree
   e. Strongly Disagree
4. Is your preferred in-store shopping method browsing all of the aisles or going straight to the items you need?
   a. Browsing all of the aisles
   b. Going straight to the necessary items
   c. A mixture of both

5. What things would enhance your shopping experience?
   a. Shopping List
   b. In-Store Navigation/Mapping
   c. Electronic Product Locator
   d. Other
6. If you selected Other on the previous question, please describe it here
   _____
7. On a scale from 1 to 5, how often do you have your personal smartphone with you while shopping?
   a. Always
   b. Often
   c. Sometimes
   d. Rarely
   e. Never
8. Do you ever utilize existing shopping cart programs such as Kroger's clicklist?
   a. Yes
   b. No
9. Do you use shopping services like instacart or store's shopping services
   a. Yes
   b. No
10. If you answered Yes to previous question, what is the main reason you use these services
    a. Busy schedule
    b. Shopping difficulties
    c. Other
11. If you answered "Other" to the previous question, please explain:
    _____
12. How often do you use shopping lists?
    a. Always
    b. Often
    c. Sometimes
    d. Rarely
    e. Never

13. If you use a shopping list, approximately what proportion of the time are you the person creating the shopping list for your shopping episode (vs someone else)? (in %) _____

14. Describe your agreement with the following statement: It is helpful to plan the path you will take to collect each item on your shopping list.
    a. Strongly Agree
    b. Agree
    c. Neither
    d. Disagree
    e. Strongly Disagree

15. How frequently do you seek help to decide on a product when presented with number of options?
    a. Always
    b. Often
    c. Sometimes
    d. Rarely
    e. Never

16. Describe your agreement with the following statement: When I ask for help locating an item that is on my shopping list, I am very satisfied with the help I receive.
    a. Strongly Agree
    b. Agree
    c. Neither
    d. Disagree
    e. Strongly Disagree

Needfinding Plan 2 - Interviews with Professional Shoppers

Professional shoppers are a new target audience that we speculate could find good use from an interface like the one designed in the previous iteration. We'll conduct interviews with professional shoppers to learn more about the tools available to them, their inputs, and their needs.

Needfinding Plan 3 - Interviews with Store Owners

Store owners are an important user whose needs were not evaluated in the first iteration of the design of this interface.

Store Managers are important component of this interface. And as such, it's very important to take their consent in terms sharing some key business-related information such as store locations, store size, store layout and product placement in aisle and bins. This information is crucial at times as it might impact the business strategy in terms of sales, forecasts and competition. Furthermore, protecting the above information from its competitor also forms one of the requirement for this interface. To unfold the above mystery, we are planning to interview the Store Managers as part of our need finding exercise. Secondly, we would also interview the shoppers to understand their perspective. As noted earlier we are still in process of finalizing our plan of approach but here are draft questions that we would like to ask the Store Managers

1. How many dedicated staff do you have to help customer find the items?
2. How many hours do you think your staff dedicate helping customers find the items?
3. How interested are you in collaborating with third parties to help your customer find the items?
4. Will you be ready to share the store layout and item's bay location with these third parties?

Needfinding Execution

Needfinding Plan 1 - Surveys for Store Customers

Needfinding Plan 2 - Interviews with Professional Shoppers

Needfinding Plan 3 - Interviews with Store Owners

References

Appendix 1