Rethinking Grocery Shopping for Supermarkets

List and Locate System

Guide: Prof. Ravi Poovaiah

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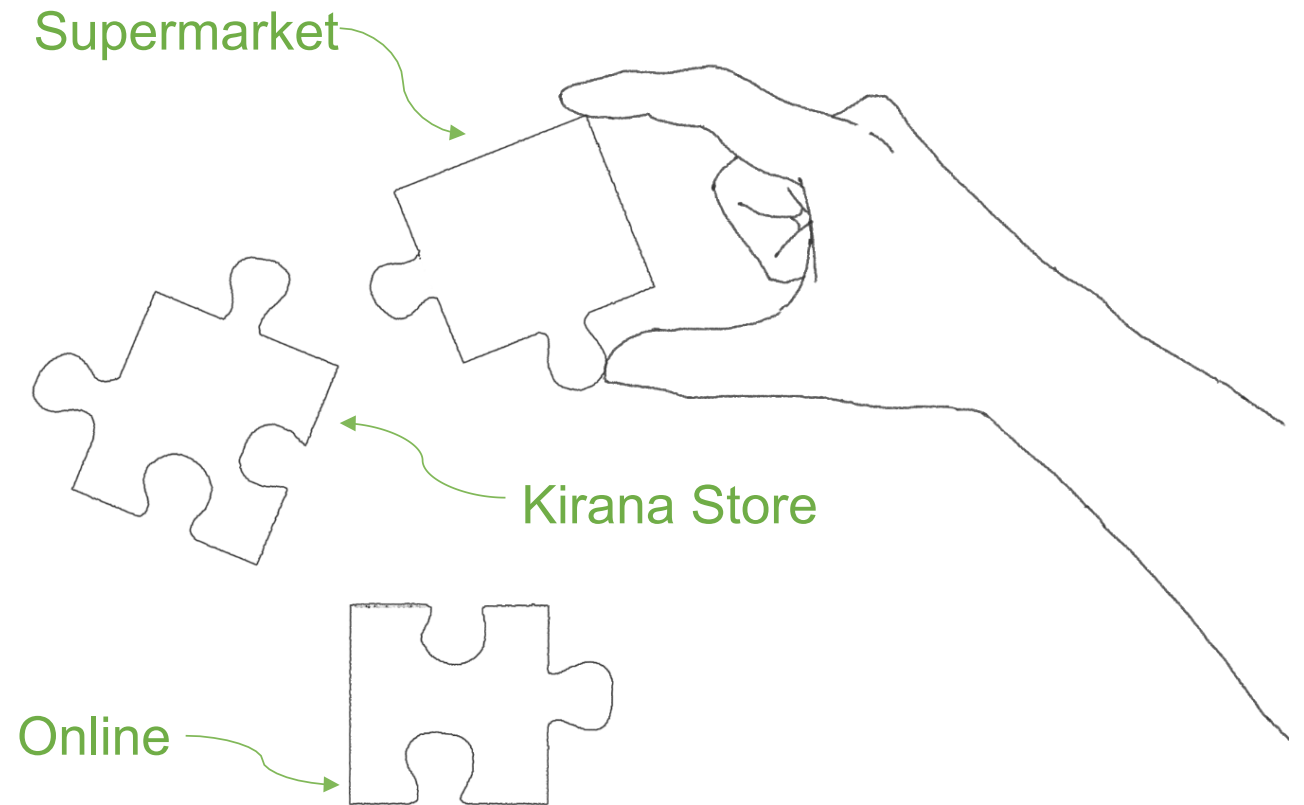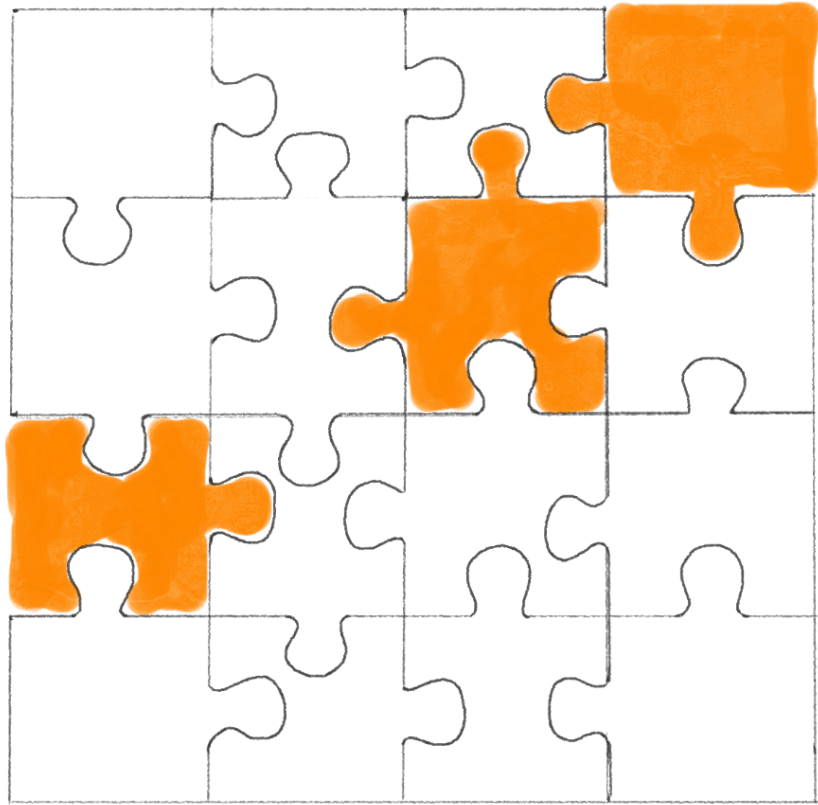
IDC Industrial Design Centre

As I grew…

Over the years…

Point 1

Supermarket

Kirana Store

Online

Point 2

Initial Intention
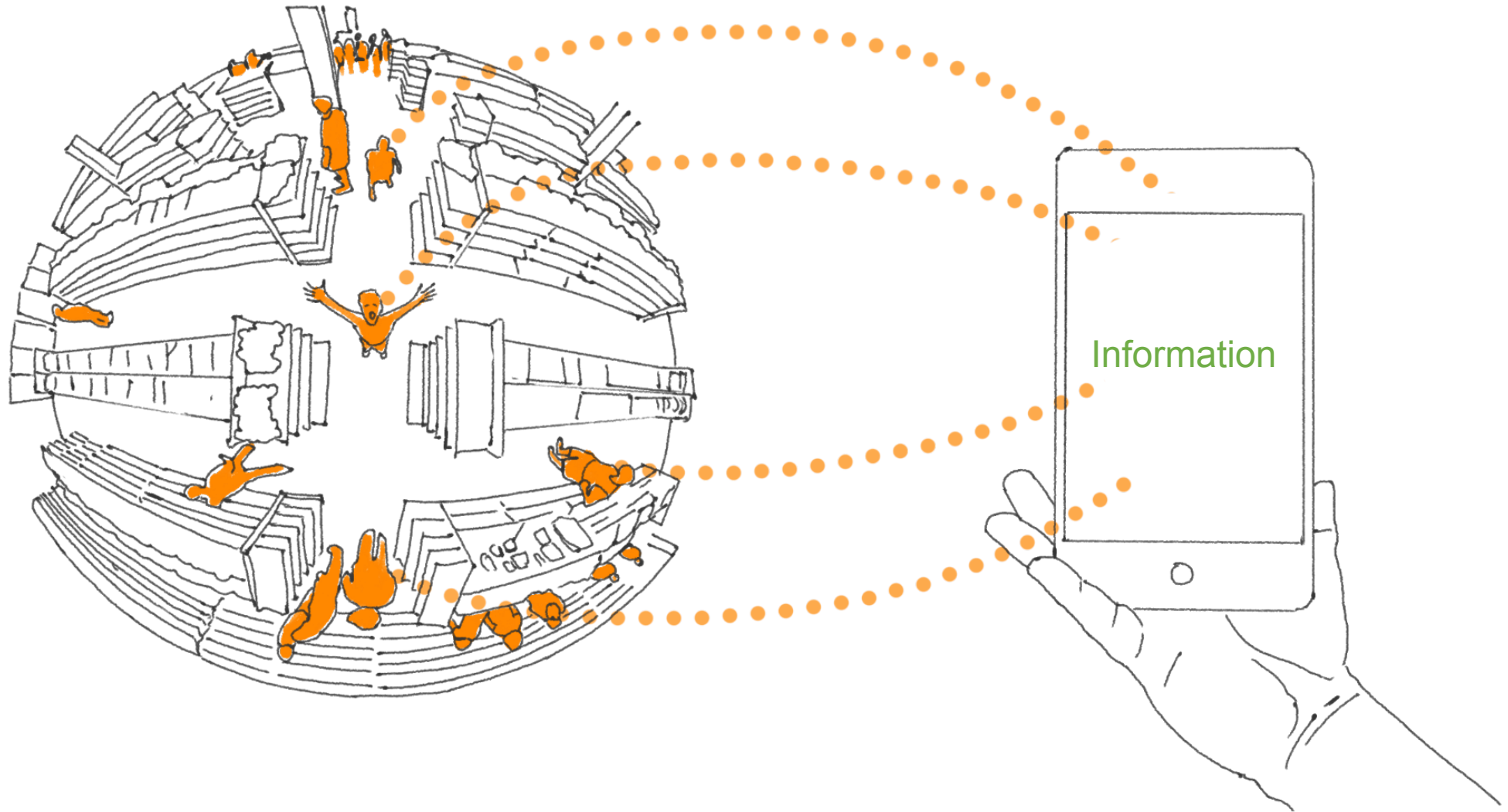
Information

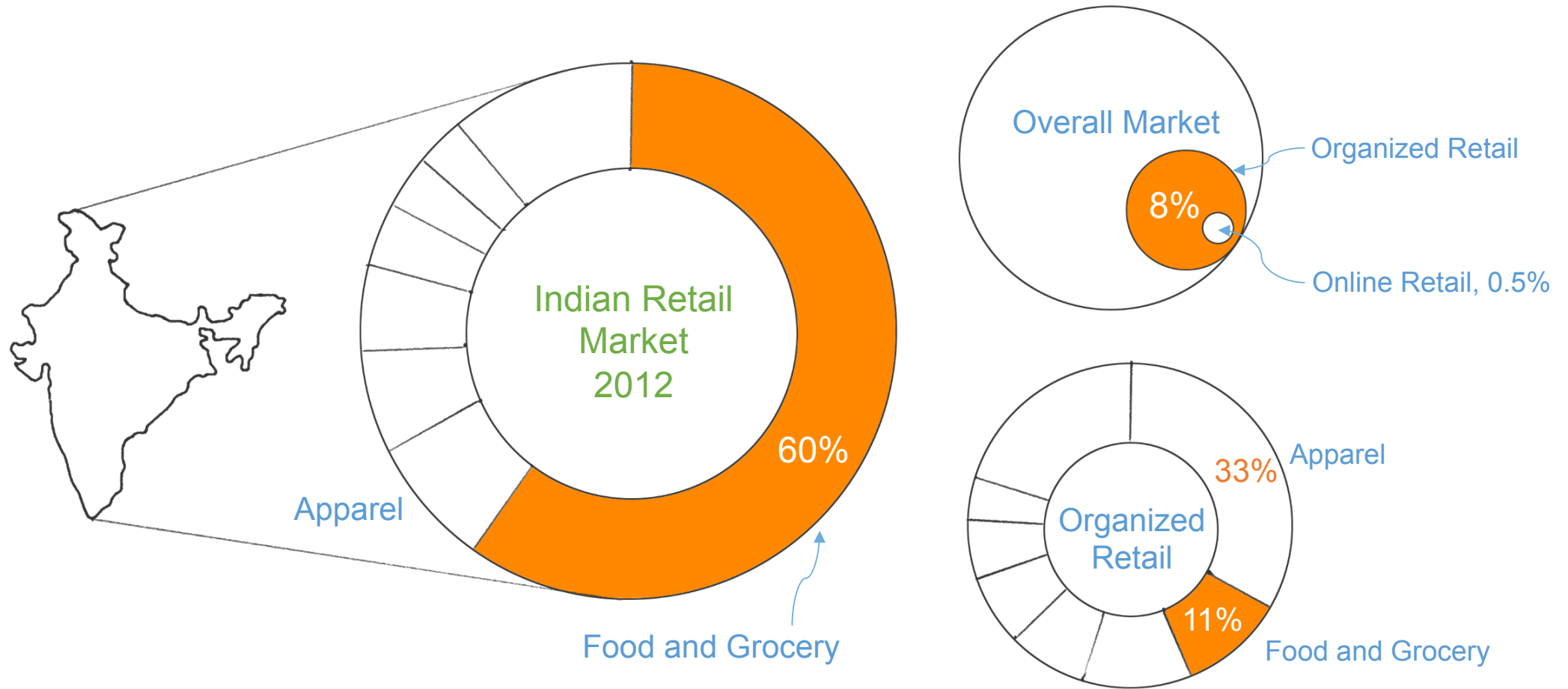# Secondary Study

Emerging consumer segment

- More Informed
- Brand Conscious
- Socially Connected
- Connected and Empowered

- Time Starved
- Emerging Affluent
- Value Conscious
- Online Consumer

Source- RAI, Emerging Consumer Segments in India, Retail leadership summit 2014

Retail industry in India

Indian Retail Market 2012

60% Food and Grocery

Apparel

Overall Market

8%

Organized Retail

Online Retail, 0.5%

Organized Retail

33% Apparel

11% Food and Grocery

Source- http://business.gov.in/Industry_services/retailing.php

Why Supermarket Format?

Malls

Departmental Store

Food and Grocery

Speciality Store

Supermarket

Personal Sale

Discount Store

Convenience Store
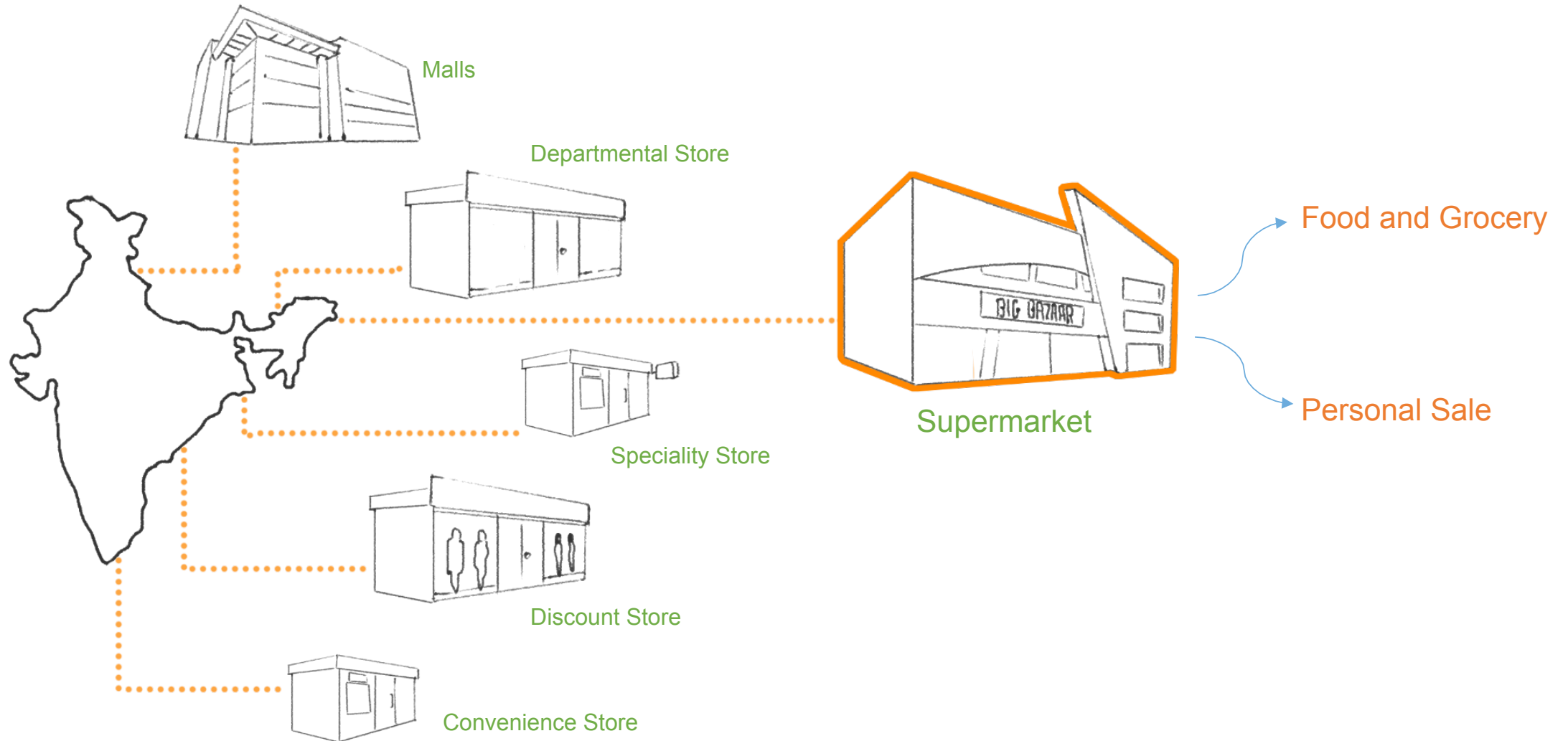
Supermarkets future needs?

Supermarket

- Variety under one roof
- Shopping Experience
- Touch and feel factor
- Packaged and uncommon items

Technology

- Increasing penetration of mobile internet
- Higher purchases of smartphones
- Need for ease of shopping
- Time and convenience

Online Retail

- Variety at one click
- Shopping in parts
- COD, search, compare
- No physical stress

Kirana Store

- Daily day to day items
- Regional items
- Personal relationship
- Close proximity
- Home delivery of items

Source- RAI, Emerging Consumer Segments in India, Retail leadership summit 2014
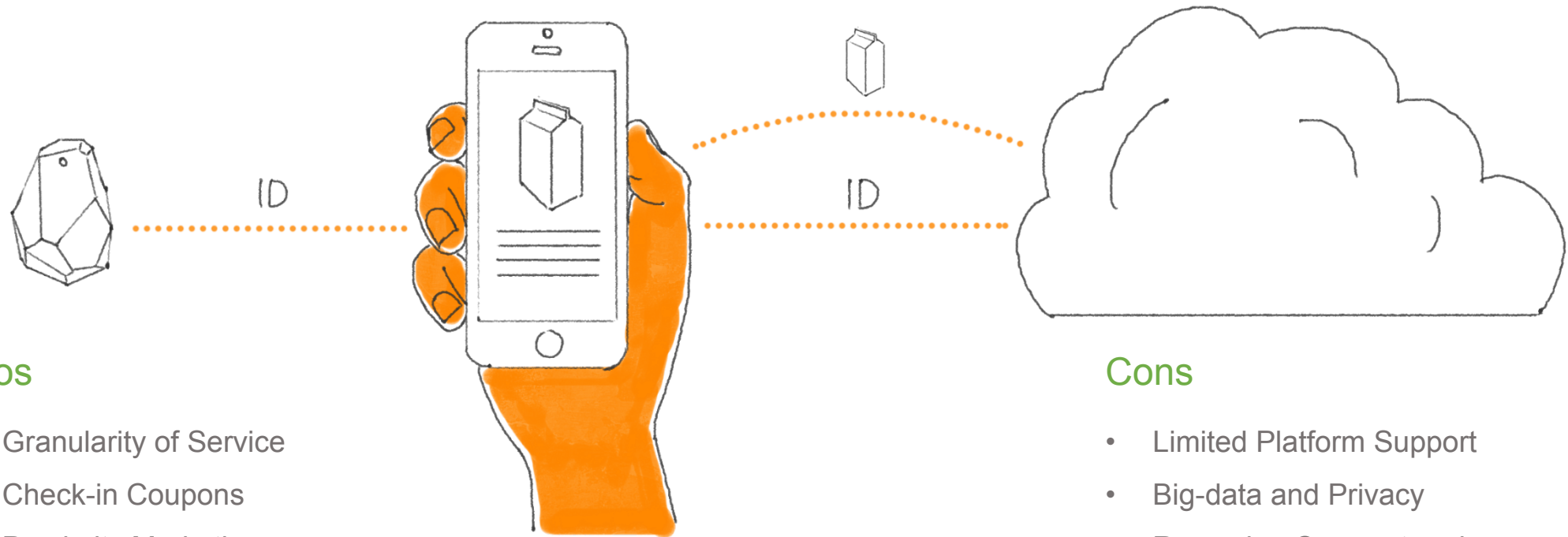
Case Studies

Localbanya

Kada

Bigbasket

Features

- Familiar Information architecture
- Delivery slot system

Problems

- Waiting of 3-4 days for slots
- Cannot use order list in future
- Product like rice and dal needs to be seen physically
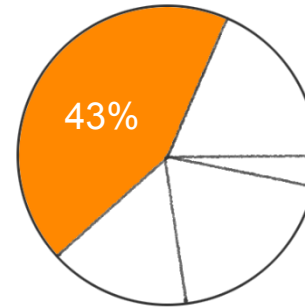
Retail technology- BLE devices

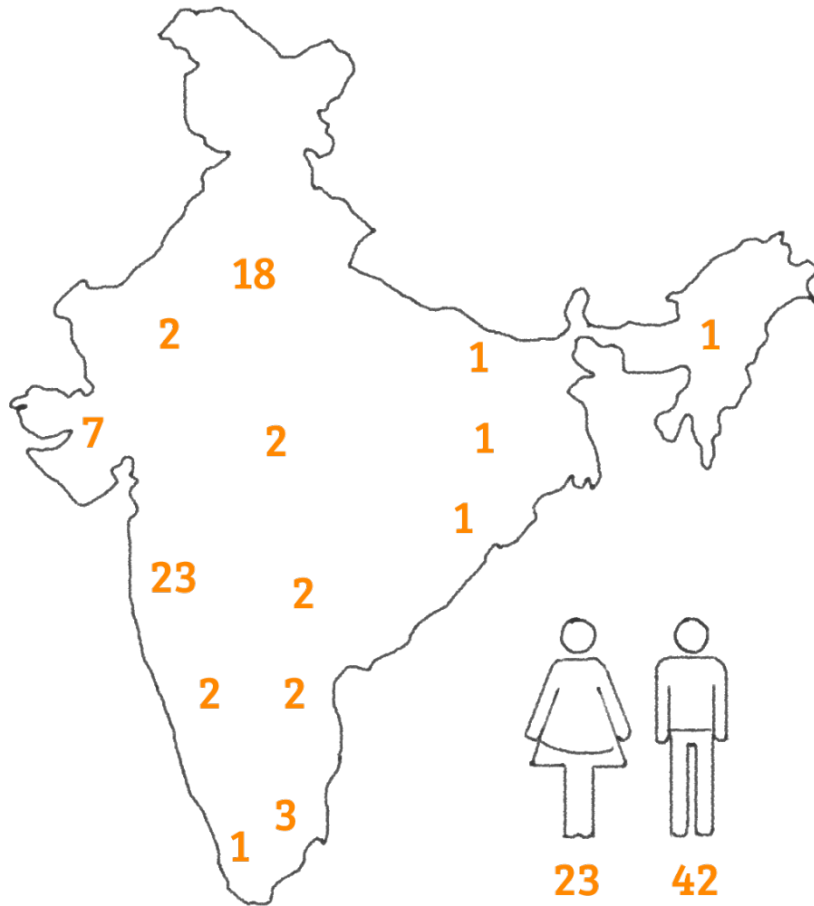
ID

ID

Pros

- Granularity of Service
- Check-in Coupons
- Proximity Marketing
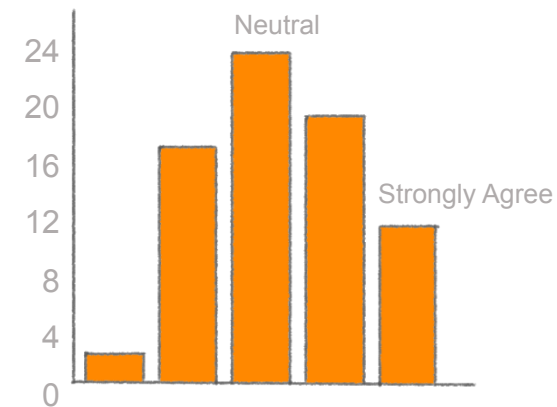- Indoor Location Tracking

Cons

- Limited Platform Support
- Big-data and Privacy
- Removing Corporate grip
- Abundant Labour force

Primary Study

User Study 1- Findings

18
2
1
1
7
2
1
1
23
2
2
2
3
1

23   42

43%

Majority of users went to supermarket 1-2 times per month

Neutral

24
20
16
12
8
4
0

Strongly Agree

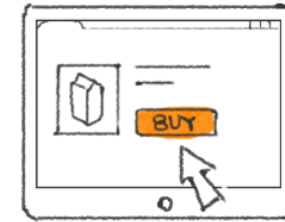Shopping at Supermarket is considered as time consuming

User Study 1- Findings

List involve items which repeat frequently

Item's Size and frequency of purchase help in locating it inside store

Users are use to features of online shopping

Shopping time needs to reduce for repeat items

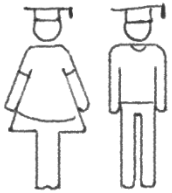Smartphone can be used for giving product insights inside and outside store
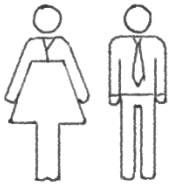
Use of smartphone for searching items and getting product insights

User Study 2
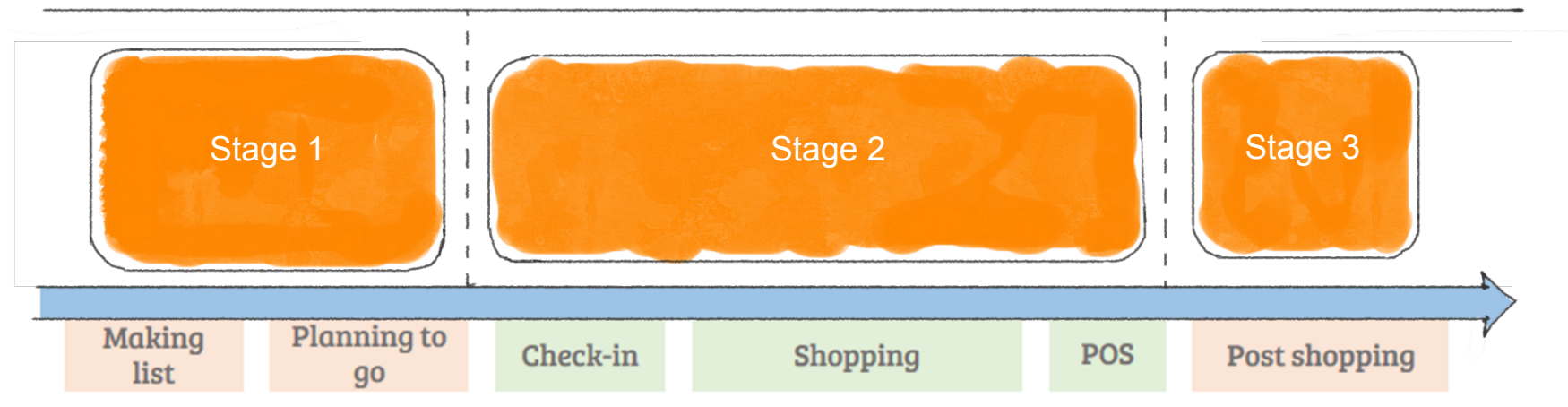
Primary users

22-25 years, **PG students**

10 Users

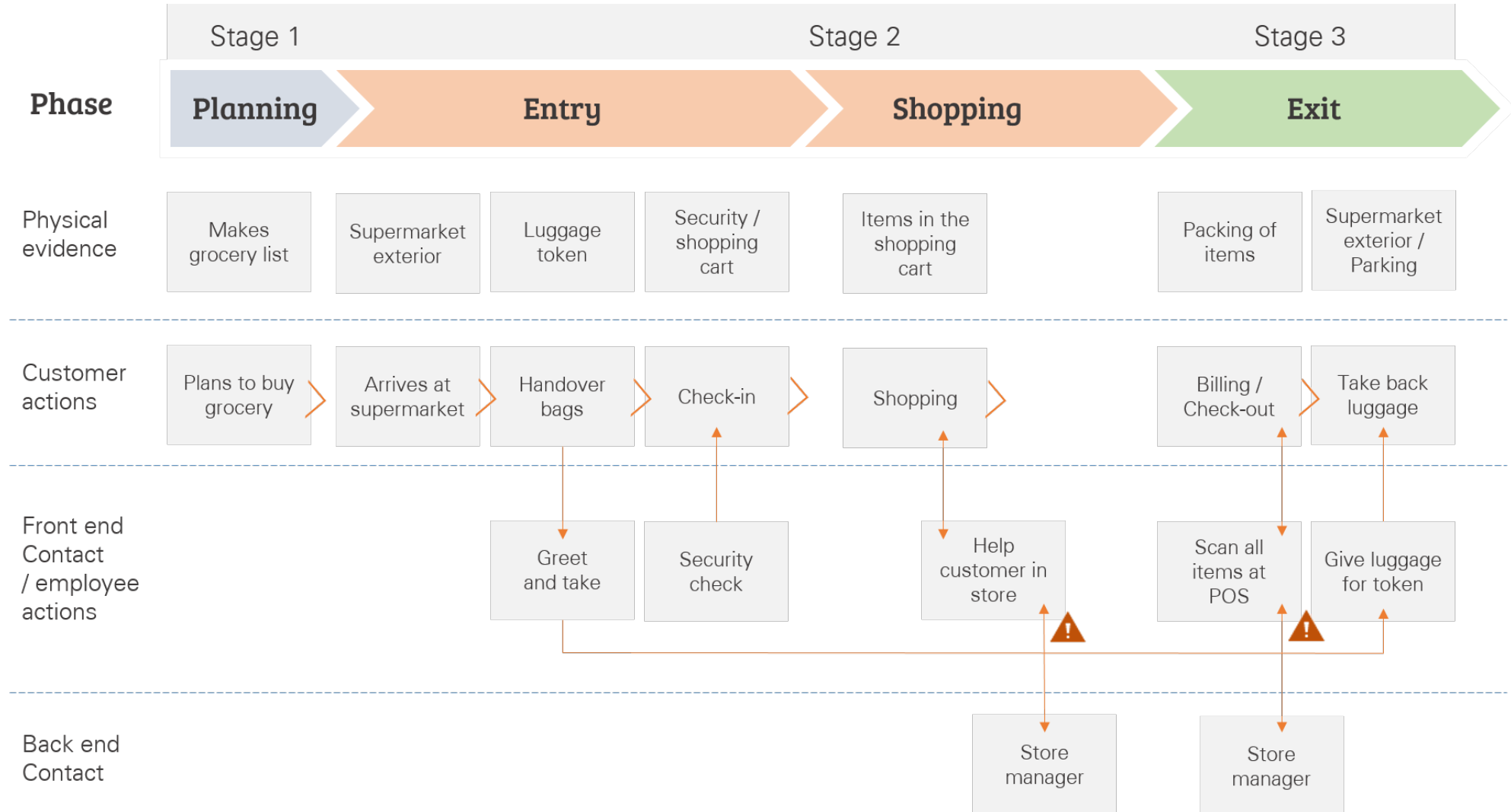26-35 years, **Working**

06 Users

Secondary users

Retailers

02 Users

Shopping Process

Stage 1

Stage 2

Stage 3

Making list

Planning to go

Check-in

Shopping

POS

Post shopping

User Study 2- Service Blueprint

Phase	Stage 1	Stage 2		Stage 3
	Planning	**Entry**	**Shopping**	**Exit**

Physical evidence

| Makes grocery list | Supermarket exterior | Luggage token | Security / shopping cart | Items in the shopping cart | | Packing of items | Supermarket exterior / Parking |

Customer actions

| Plans to buy grocery | Arrives at supermarket | Handover bags | Check-in | Shopping | | Billing / Check-out | Take back luggage |

Front end Contact / employee actions

| | | Greet and take | Security check | | Help customer in store ⚠ | Scan all items at POS | Give luggage for token ⚠ |

Back end Contact

| | | | | | Store manager | Store manager | |

User Study 2- Experience map

Thought and feelings

Am I forgetting something ?

First supermarket or mall

Will go when less crowded

Where is luggage counter ?

Lets see what I want first

Oh, they have this product !

Sweet deal !

Where is this item ?

I am tired.

Such a long queue always.

Have I got everything ?

Emotional experience

Throughout Journey

Towards Supermarket

Making list

Planning to go

Check-in

Shopping
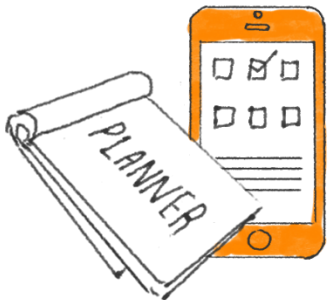
POS

Post shopping

User Study 2- Findings

Visiting supermarket requires planning and making list

Repeat users have a mental map of store but not specific location

After a point users are fatigued and stop exploring

Need for a planner that can help in this stage

Some items require navigational help inside store

Reduce effort for repeated activities

Restated Brief

Final Needs

- Need for a list planner

- Reduce effort for repeated activities

- Use of smartphone to provide product insights

- Allow users to search, locate and collect items

Final Goals

- Provide a decision aid system that works outside as well as at the physical grocery store.

- Provide consumers with product insight using which retailers can provide a differentiated experience.

Ideation

Make list and reserve items

Browse items, favourite them
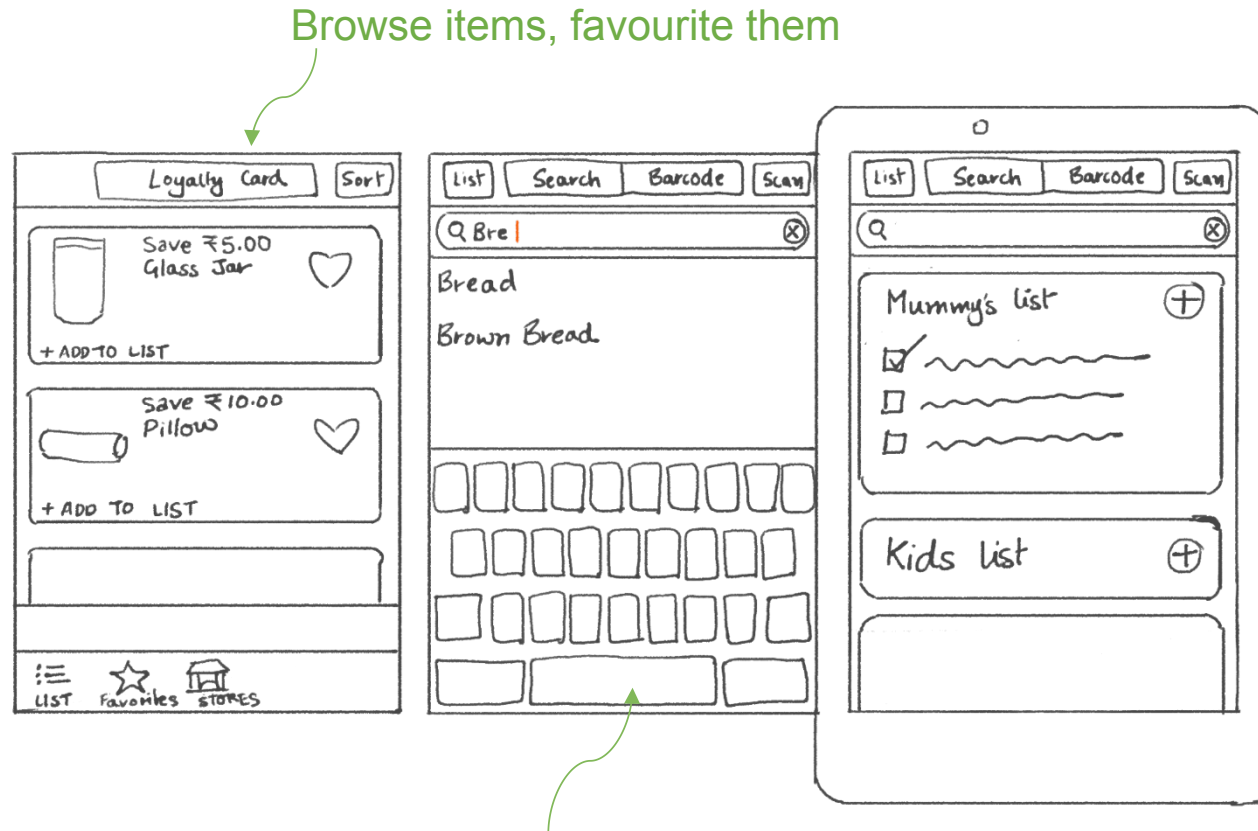
Recommendation based on purchase history
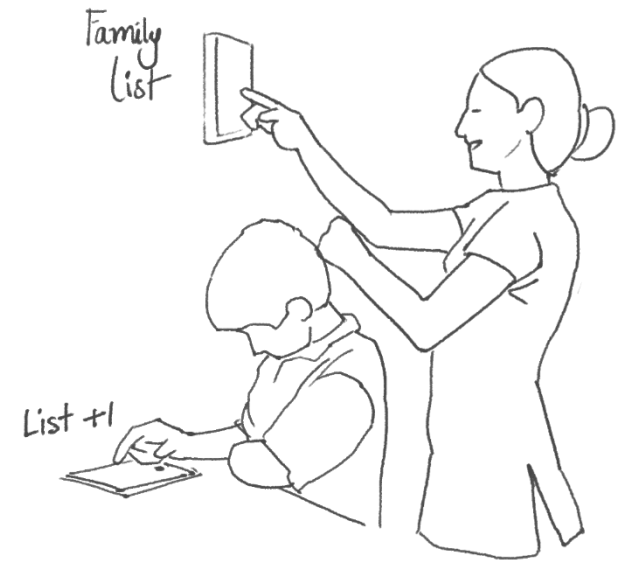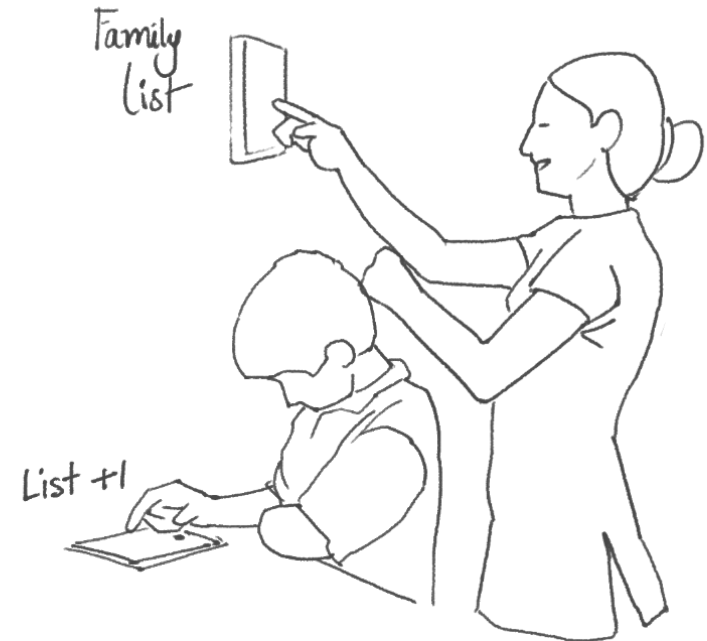
Family can create list
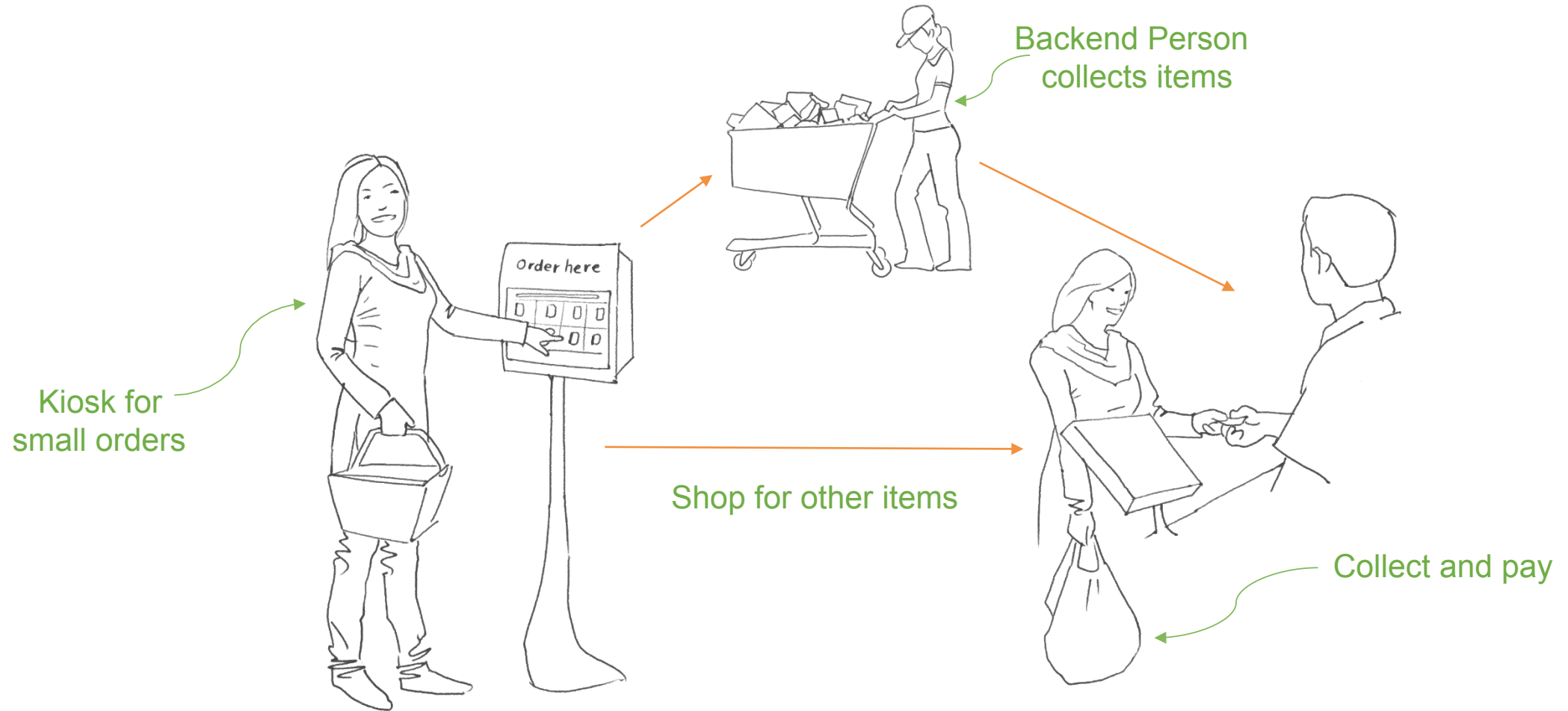
Make list and reserve items

Concern

- IT infrastructure required from retailer

Taking forward

- Reserve items on list

- List created overtime

- Reduce checkout time

- Giving recommendation

Click and collect

Kiosk for
small orders

Backend Person
collects items

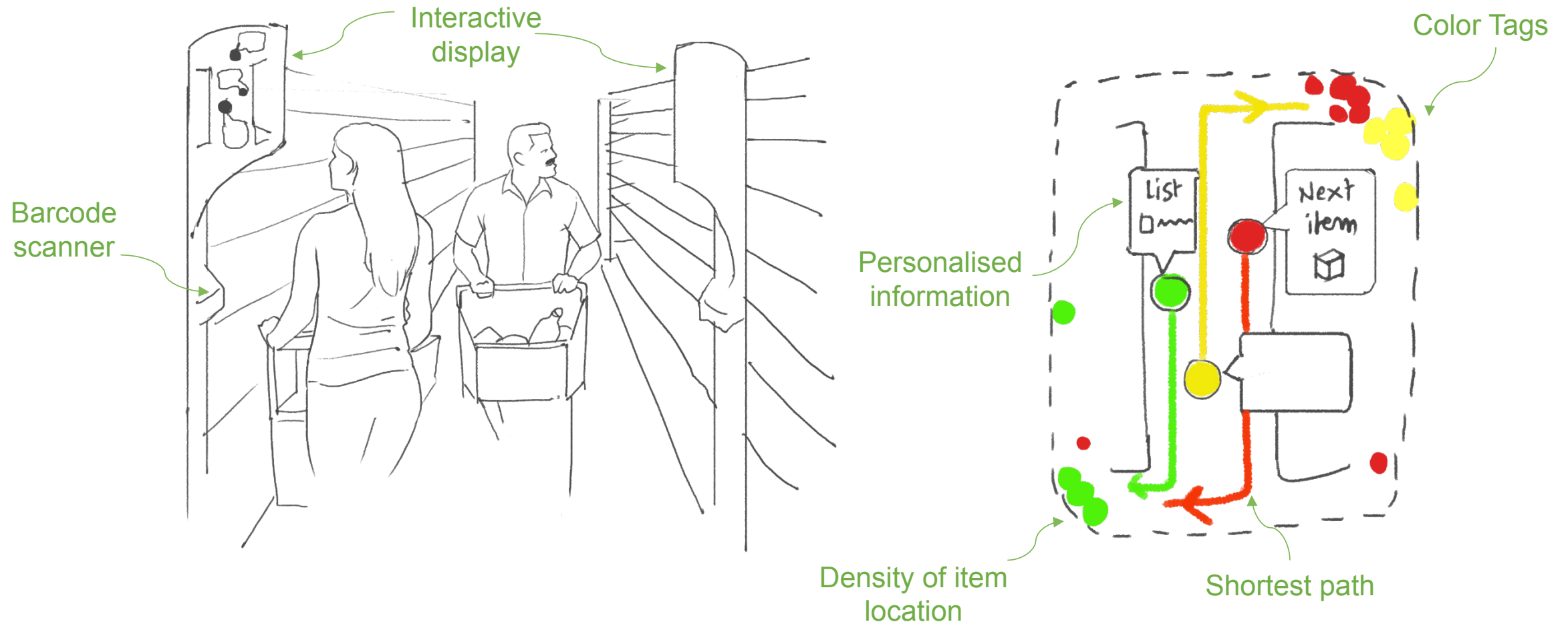Shop for other items

Collect and pay

Click and collect

Concern

- Why order at store, order online

Taking forward

- Reduce checkout time

- Reduce effort for basic items

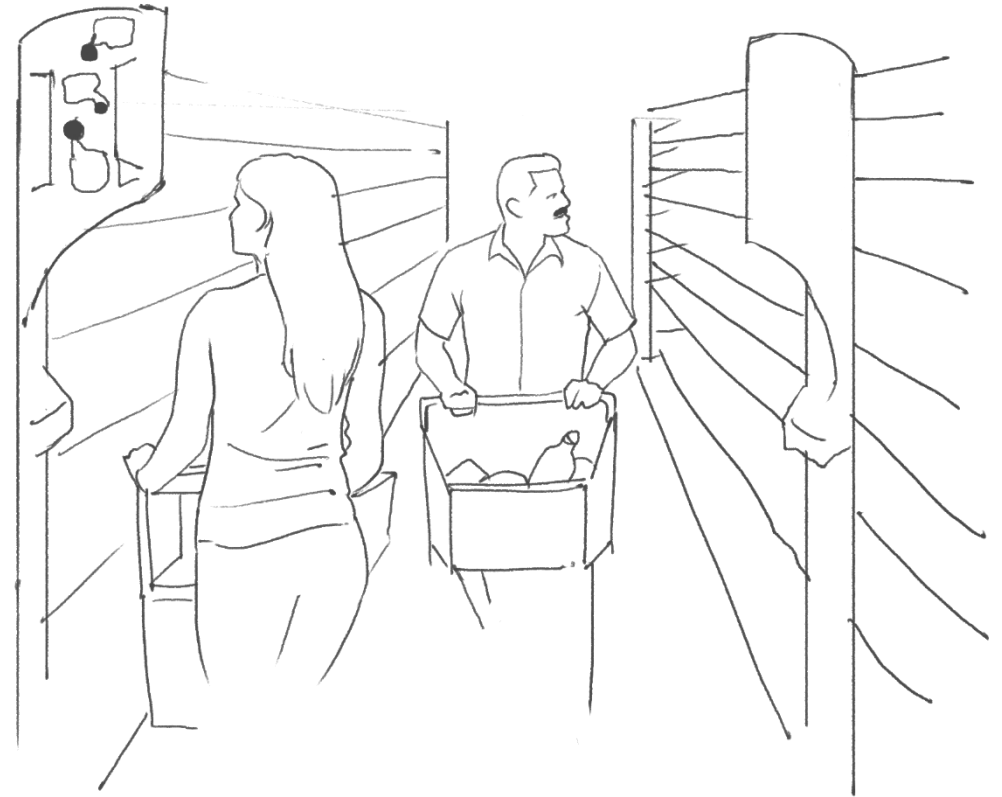# Interactive Aisle

Interactive display

Barcode scanner

Color Tags

Personalised information

Density of item location

Shortest path

Interactive Aisle

Concern

- Will not work in dense crowd

Taking forward

- Interactive Navigation

Smartphone shopping assister

Navigation

Take Right

List app extension

Get List
Recommendation
Review

Scan code
Update Cart

No scanning In the end
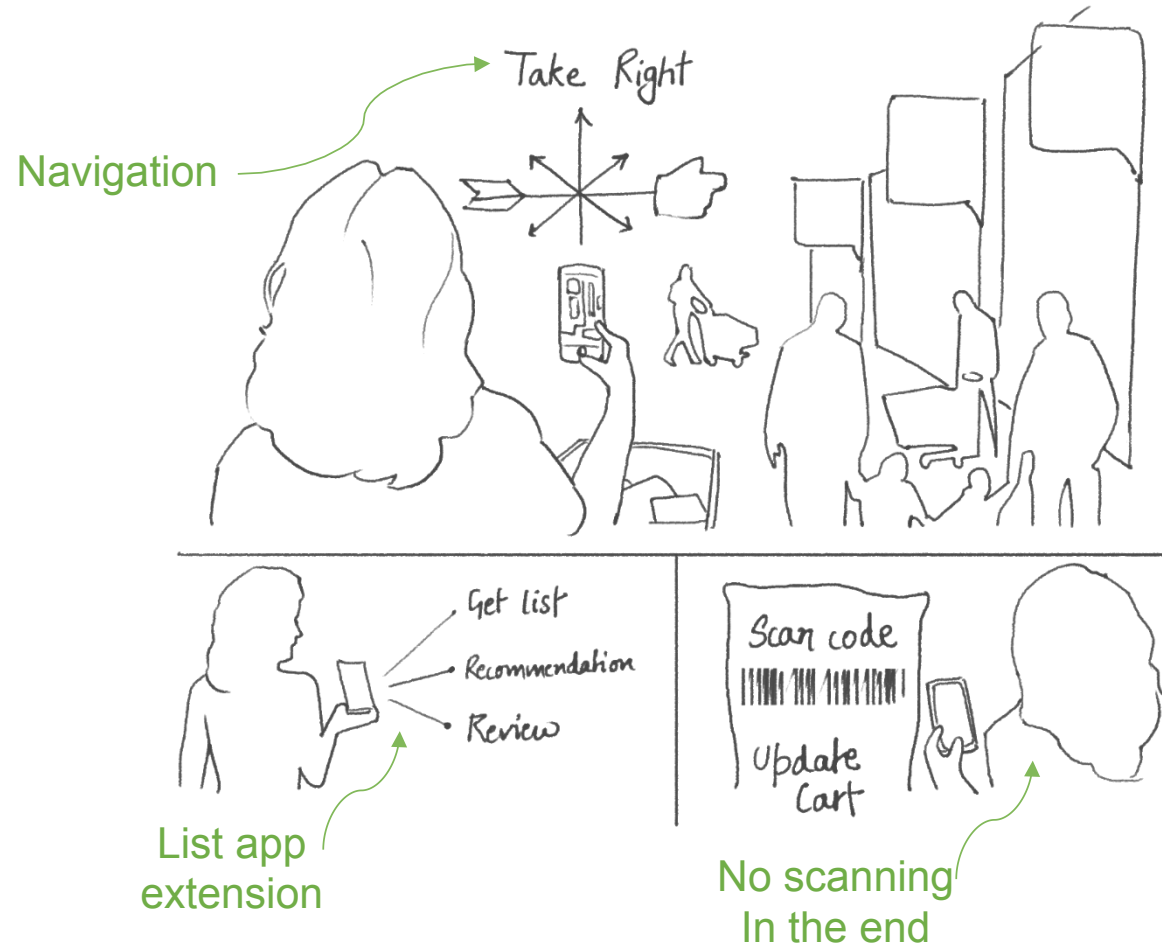
Smartphone shopping assister

Concern
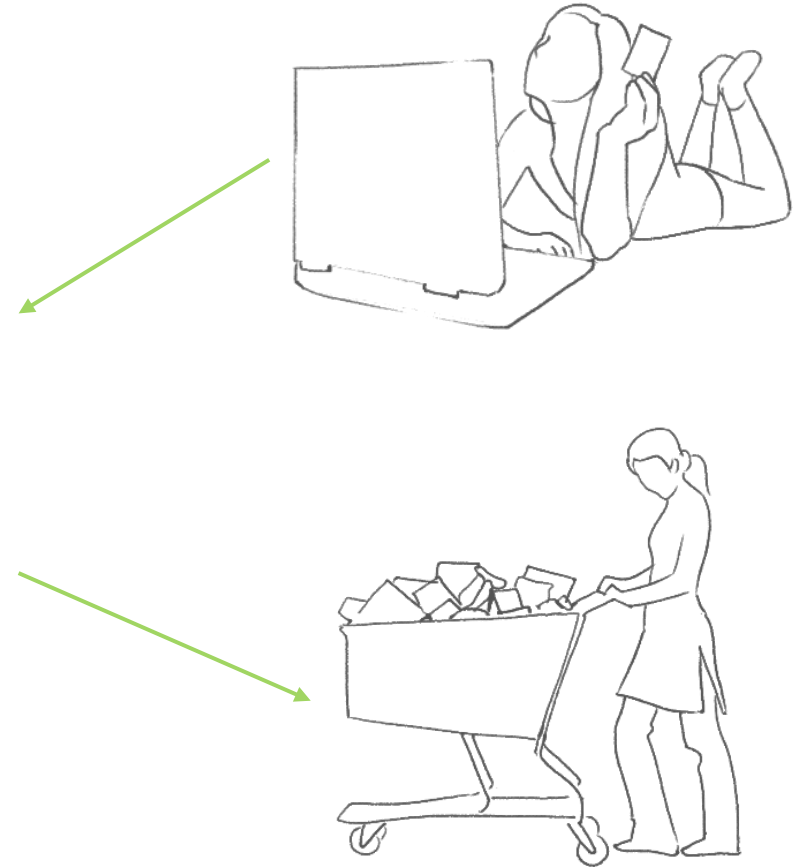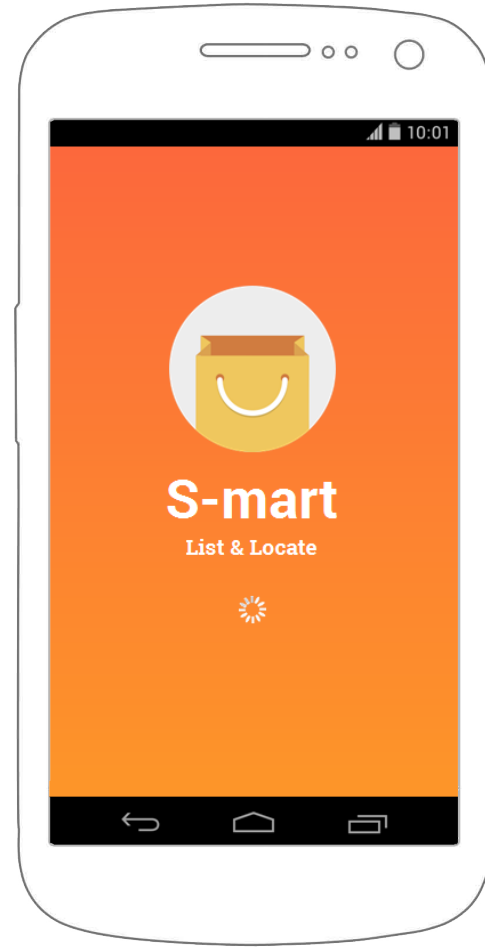- Platform limitation

Taking forward
- Provide a smartphone platform

Connecting the dots

Final Features

- Reserve items on list
- List created overtime
- Reduce checkout time
- Giving recommendation
- Reduce checkout time
- Reduce effort for basic items
- Interactive Navigation
- Provide a smartphone platform

S-mart

List & Locate

Visual Design

Roboto Slab
Roboto Slab

Roboto Light
Roboto Light

Colour palette

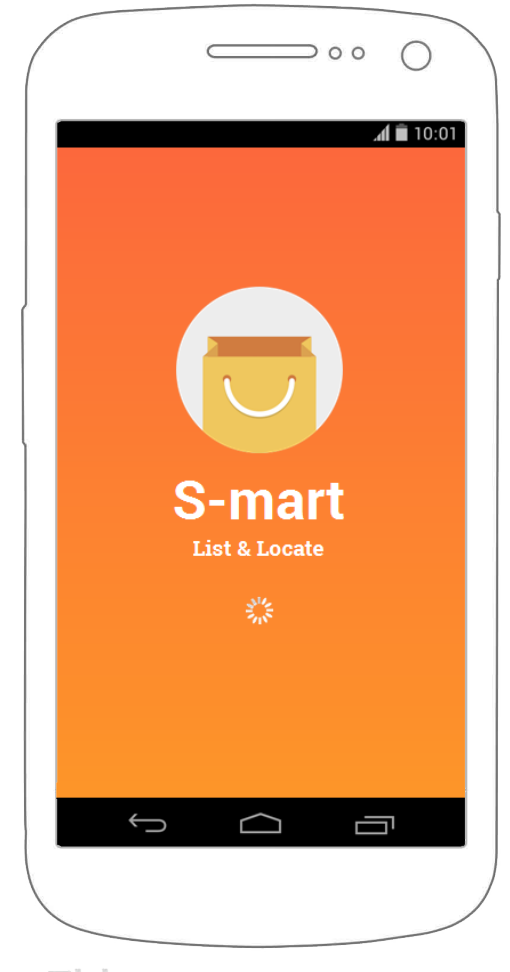- Bright colour such as orange and yellow is used to give a sense of excitement and curiosity

Typeface

- Roboto is created specifically for the requirements of UI in Andriod platforms.
- Roboto Slab as heading font and Roboto as body font

Platform

- The UI was developed for Andriod kitkat
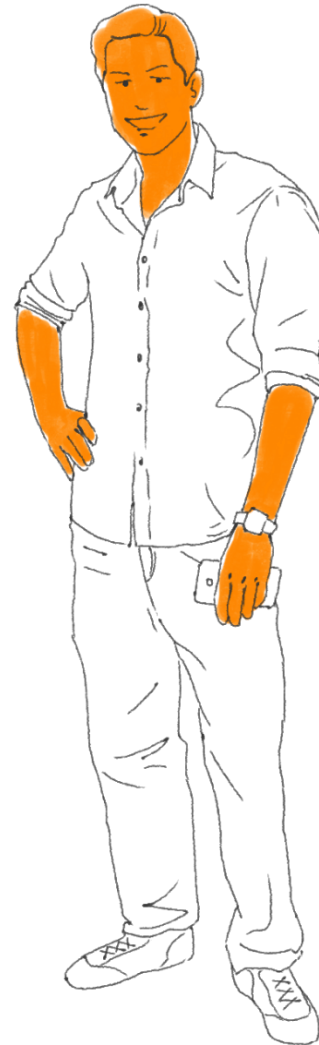
S-mart
List & Locate

Persona- Gautam Patel

Quick Stats

- 26 years old
- Bachelor
- Placed in an IT company
- Recently shifted to Bengaluru
- Shares flat with 3 other friends

About Gautam

- Goes to gym and trying lean diet.
- Goes to a local kirana shop for small purchases.
- Is health conscious, prefers to cook himself.
- Many of the items are only available at supermarket,
- Maintains an items list before visiting supermarket.
- He actively looks for deals in store and takes time to make choices.

Final Concept: S-mart
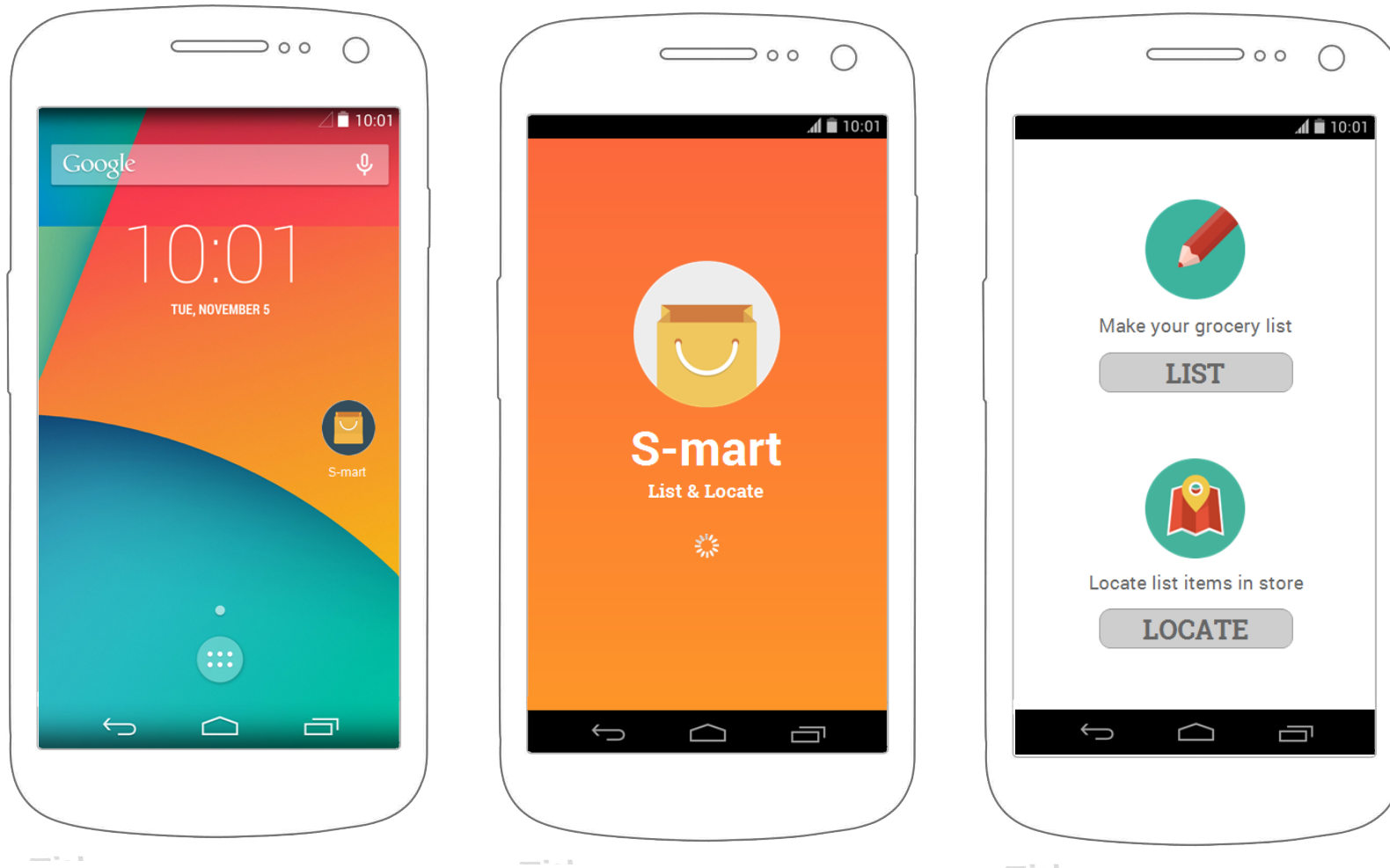
Evaluation

Goals of the evaluation

- From user's perspective the goals of evaluation is to examine the usability of newly proposed retail solution.

- And examine the perceived usefulness of the service,. whether proposed shopping solution is better and more useful than the traditional one.

Criteria for recruiting participants

Required participants: 6 (3 male, 3 female)

- Age range: 20-30 years old

- Smartphone user- advanced beginner, competent performer

- Independently living and doing his/her own grocery shopping

- High exposure to media and services

- Visits supermarket at least once a month.

Evaluation

Introduction

- The participants will be given a brief of the application.

- The participants will receive an overview of the usability test procedure.

- Participants will complete a pre-test demographic and background information questionnaire.

Evaluation Test

- The user will be asked to perform a no of unfamiliar task.

- Evaluation Criteria: Completed or not, no of tries required to complete the task, time required to complete the task.

- Users will be asked to do readaloud while performing tasks.

Post-test Questionnaire

- User will be asked to fill a post-test questionnaire, which will use likert scale for rating.

- Users will be asked to rate the features in terms of usefulness and tasks in terms of how easy they were to perform.

Evaluation Task

Task 1. Add a new Grocery list

- 100% completion rate
- Make add new list icon more prominent

Task 2. Open and navigate through an existing grocery list

- 100% completion rate
- What is the use of check-box
- Can I delete other person's items

Task 3. Search and add Tropicana Juice to an existing grocery list

- 80% completion rate
- Can I select both supermarkets
- Sort-by menu is not prominent

Evaluation Task

Task 4. Add a juice using the browse category feature

- 0% completion rate
- Rename list to browse
- Give a prompt to select which list to add to

Task 5. Go back to home screen, open locate feature and locate item in store

- 60% completion rate
- What if I have given collect but want to locate later

Task 6. Can you find the recommended item during shopping

- 80% completion rate
- Discount information about the recommended product

Post-test Questionnaire

Feedback

- The supermarket list feature is overall found to be very useful by all the user,

- Sharable list feature was found very useful by users who are living with other roommates

- The idea of recommended list was not clear with some users

- The basic task of adding items, browsing were found to be easy by the users

- The task of locating list in store was done successfully by all users

- Navigation within store was not fully clear as it was done on a prototype

.

Learnings from project

- Going through the design process from start to finish.

- Different experience from working in group

- You have to be disciplined and stick to deadlines

- Taking design decisions

Thank you ☺