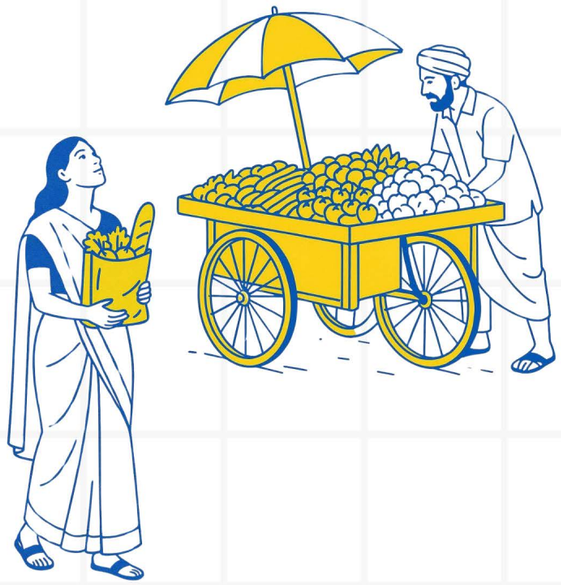
Influential Communication & User Experience Strategies for Nutritional Purchases in Informal Market

Recontextualizing Bangladesh Nutritional Activities (BNA) for India



Designing The Invisible Meal

JK LAKSHMIPAT UNIVERSITY
Institute of Design
NAAC 'A' Grade Accredited

Influential Communication & User Experience Strategies for Nutritional Purchases in Informal Market.

VOL.1

Student : **Jasmine Kaur**

Sponsor : **Quicksand Design Studio**

Mentor : **Devanuj Balkrishan**

Consultant : **Sumit Baruah**

Programme :
Bachelor of Design (B.Des)
Interaction Design

THE GRADUATION PROJECT 2025

The Evaluation Jury has recommended **Jasmine Kaur**

for graduation from **Institute of Design, JK LAKSHMIPAT UNIVERSITY**

with specialization in **Interaction Design**

Herewith, for the project titled "**Influential Communication & User Experience Strategies for Nutritional Purchases in Informal Market"** on fulfillment of requirements by

Jury Chairman

Jury Member

Jury Member

Subsequent remarks regarding fulfillment of requirements

Dean, Institute of Design
JK Lakshmipat University

Originality Statement

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Influential Communication & User Experience Strategies for Nutritional Purchases in Informal Market

Recontextualizing Bangladesh Nutritional Activities (BNA) for India

In the narrow lanes of informal markets – where carts creak, vendors call, and vegetables gleam under fading sunlight – decisions are made. Quietly, Quickly, Repeatedly.

This is not just a study of food.
It's a study of behavior, of emotion, of influence – and the invisible systems that shape our everyday choices. From communication styles to vendor pitches, from generational memory to market choreography, this work traces the threads between what we see, what we trust, and what we ultimately carry home in a bag.

This graduation project was undertaken by Jasmine kaur at Quicksand Design Studio, as part of my final year in the B.Des – Interaction Design program at J.K. Lakshmipat University.

Whether you're a designer, researcher, policy-maker, or simply someone curious about the quiet power of daily choices, this document is an invitation to look closely – and to design thoughtfully.

An Initiative of

USAID FROM THE AMERICAN PEOPLE
USAID Feed the Future Bangladesh Nutrition Activity

Made possible by

QUICKSAND

Acknowledgement

I would like to extend my heartfelt gratitude to the following individuals and organizations whose support and guidance were instrumental in the completion of this project.

Ayush Chauhan & Neha, Director
Quicksand design studio (Delhi)

I would like to express my heartfelt gratitude to Ayush and Neha for their incredible support and guidance throughout my time at the studio. Their approachable nature and the open environment they foster made it easy for interns like me to share our thoughts and concerns freely. I truly admire the way they manage the studio so seamlessly–balancing responsibilities while still making time to actively listen and engage with each of us.



With entire QUICKSAND TEAM at QS20 celebration

> This experience has been invaluable to my growth.



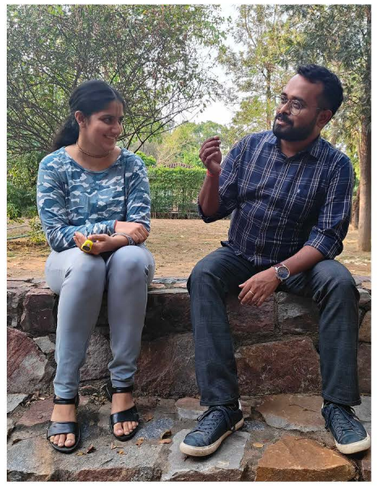
with Neha & Ayush

QUICKSAND DESIGN STUDIO

I am deeply grateful to Quicksand Design Studio Delhi for providing a remarkable opportunity for young designers like myself to contribute meaningfully. Your trust in me, coupled with the access to valuable resources and the autonomy to explore diverse areas of interest, was invaluable. I am particularly thankful for the warm and cooperative environment that facilitated my studies and research across the Informal markets.

Mr. Sumit Baruah, Lead Designer, Mentor, Quicksand design studio (Delhi)

As my mentor throughout this project, your profound depth of knowledge and your generous willingness to share it made an immense difference in my work.
At the same time, you gave me the freedom to explore my interests and approach the project creatively. The valuable discussions we had were instrumental in refining our ideas and shaping the direction of our work specially research. I appreciate not only your expertise but also your forward thinking mindset.



With mentor Sumit Baruah

Mr. Devanuj Kanta, Faculty Mentor JK Lakshmipat University

I am deeply grateful to Devanuj Sir, who has been a constant source of support and guidance since my early years in college. He not only helped me grow as a researcher–teaching me how to structure insights, question my biases, and see with clarity–but also gently guided me towards a deeper understanding of life. His unique ability to connect the material and spiritual paths left a lasting impact on me. One of his words that stays with me is: “Your work is a devotion” His wisdom, patience, and presence will always remain with me.



With mentor Devanuj kanta

JK Lakshmipat University Jaipur Institute of Design



JK Lakshmipat University, Jaipur. Photo Credit: JKLU Website Gallery

I am also thankful to JK Lakshmipat University for endorsing our work and credibility, and for the unwavering support in our endeavor to collaborate with the Quicksand Design Studio

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Creative Ownership

This work represents my personal thinking, research, and creative effort. It has been shaped by lived experience, reflection, and a lot of time and care. While I'm happy to share it in the spirit of learning and conversation, I ask that it not be used, adapted, or circulated without my permission. If you're interested in building on any part of it, I'd love to be in that conversation. Thanks for respecting the intent and integrity behind this work.

Prologue

A project is never solo—this is where I introduce the people, the place, and the purpose behind it

PROLOUGE

As part of my academic journey at JK Lakshmipat University, I was required to complete a Graduation Project with a client organization. This project involved working on a comprehensive design brief that aligned with my field of study, allowing me to apply my design knowledge and skills in a real-world setting. The project demanded academic rigor, incorporating systematic research and informed design decisions.

For this project, I collaborated with Quicksand Design Studio on Project BNA (Bangladesh Nutritional Activities). My role involved conducting in-depth research on the proposed solution. The initiative aimed to understand purchasing patterns in informal markets and also addressed challenges related to raising awareness about nutritious meals based on these purchasing behaviors.

In low-income and informal market settings, communication and design play a critical role in shaping nutritional choices. This study investigates how influential communication and user experience (UX) strategies can align with user mental models to drive nutrition-related purchases in informal retail environments, such as carts and mandis.

Conducted in Indian urban marketplaces, the research applies a human-centered design methodology involving ethnographic fieldwork, observational frameworks, stakeholder mapping, and insight synthesis. Findings reveal culturally rooted behaviors and decision-making patterns among buyers and vendors, influenced by cooking routines, food familiarity, time constraints, and perceived value.

The outcome is a set of strategic UX recommendations that can inform the design of a mobile food cart model for Bangladesh, aimed at enhancing nutritional access through influential and empathetic design.

Institute of Design, JK Lakshmipat University

Established in 2011, JKLU is inspired by the futuristic vision of Lala Lakshmipat Singhania, the key founder of Lakshmipat Singhania Education Foundation. Under the aegis of J.K.Organisation, the Foundation has been extending its legacy and vision of 'Education to all' for decades.

Institute of Design at JKLU aims to shift from conventional design education towards a more future-ready and transformative way of learning to enable students to become successful designers.



JK Lakshmipat University, Jaipur. Photo Credit: JKLU Website Gallery

Interaction Design, JKLU

The program enables students to create analog and digital experiences that reimagine the way people connect with products and services. It is about cognitive sciences as well as computer sciences.

Courses such as cognitive ergonomics, user research, ethnographic research, habitat studies, prototyping and testing, information architecture, accessibility, and inclusive design help students understand the way people think, feel, and behave as the foundation for any product, environment, or system.



JK Lakshmipat University, Jaipur. Photo Credit: JKLU Website Gallery

Courses on typography, UI design, micro-interaction, color and form, visual documentation, composition, semiotics, and data visualization aid in developing visually delightful interactions.

Students have the opportunity to work on real-life projects, including designing apps, web design, IoT-based projects, human-machine interfaces, and system design projects.

Quicksand Design Studio THE SPONSER

Founded in 2004, Quicksand is one of India's leading design and innovation consultancies, working at the intersection of human-centered design, sustainability, and social development. With studios in Delhi and Bangalore, Quicksand brings together interdisciplinary teams to tackle some of the most pressing challenges in public health, education, climate resilience, livelihoods, and inclusive technology.

Over the past two decades, Quicksand has collaborated with global organizations such as USAID, Bill & Melinda Gates Foundation, UNICEF, Microsoft Research, and various government bodies, using design as a tool to foster inclusive development. Their approach blends ethnographic research, participatory design, and systems thinking to co-create meaningful interventions with communities and stakeholders.

I'm honored to be pursuing my graduation project with Quicksand as part of their long-standing commitment to nurturing emerging design talent. This is my second internship with the studio, where I work as a Design Research Intern. Being part of Quicksand's ecosystem has allowed me to explore the depth and impact of design in real-world, socially-driven contexts, and has significantly influenced my journey as a systems and human-centered designer.



At Quicksand Design Studio

The Student



Human-centered Designer with expertise in crafting intuitive interfaces and systemic solutions for complex challenges. Adept at combining ethnographic research, behavioral analysis, and strategic design thinking to deliver impactful user experiences. Recognized for innovation in healthcare, automotive, and policy design. Working on great marriages between Scientific principles, Design concepts, and Behaviour architects.

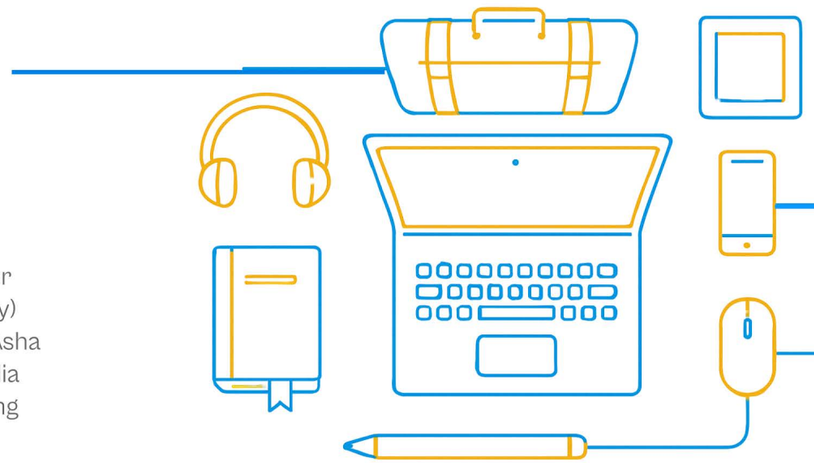
Work Experience

Quicksand design studio

Design Research Intern

8 months

Developed the concept presentation for The Clip (a USA-based e-bikes company) addressing commuting challenges for Asha Workers and campus commuters in India Conducted research on local commuting needs, and mapped systemic issues. Proposed strategic Intervention that can facilitate e-bikes in the context. Worked on Bangladesh Nutritional activities which later happened to be my graduation project that you are going through.



Education

JK Lakshmipat University, Jaipur

Pursuing Bachelor in Interaction Design | 2021 - 2025

9.3 SGPA

Contact

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Skills

- User Research & Usability Testing
- Wireframing & Prototyping
- Behavioral Architect
- Information Design
- Data Visualization & Synthesis
- Systems Thinking & Policy Analysis
- Field Research & Ethnography
- Strategic Design Thinking
- Speculative Critical Design

My Projects



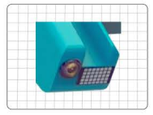
Rx-NFC aids medication management for the visually impaired. It includes a consumer-facing app and a pharmacist-facing database, offering audio instructions and auditory interfaces for prescription management.



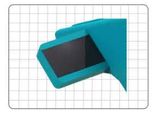
VeinLoc

VeinLoc uses revolutionary machine-learning technology to accurately determine intravenous entry points in the human body.

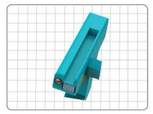
3-Step Insertion Process



Vein Entry Points are identified through the use of infrared rays by checking hemoglobin content in blood vessels.



Vein Layouts and entry points are visualized with the help of a built-in processor and displayed to the user through LCD panels.



Cannulas can now be inserted with a proprietary rail system and administered with high accuracy.

PHYSIO REFLECT

Mirror Your Journey to Optimal Recovery

Physio Reflect is an innovative concept in physiotherapy that utilizes mirrors as a tool for rehabilitation and boost patients Trust and engagement during the sessions.





Decentralizing Religious Tourism Along Local Craft. Led a project to decentralize religious tourism by incorporating local crafts, empowering communities, and enriching pilgrims' experiences.



GovReach

The project adapts the street cart (thela) as a mobile platform for delivering government services and information to communities thus bridging the gap between government and citizens.

Critical Safety Infrastructure for Roadways (CSIFR)



Conducted a system-wide analysis to improve road safety by identifying policy gaps and developing the CSIFR multilayer system, which integrates roadway infrastructure to prevent accidents. Also designed a car system GUI responsive to critical safety infrastructure.

Project Overview

Ready to zoom out before we zoom in? The next section sets the stage.

Who Are We Designing For?

FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

X

QUICKSAND

The Feed the Future Bangladesh Nutrition Activity (BNA) is a 10-year initiative funded by USAID, aiming to improve the nutrition and health of vulnerable populations–especially children under 5, pregnant and lactating women, and adolescents–in Bangladesh. The program focuses on promoting the consumption of nutritious, diverse, and safe diets, empowering women and adolescents, and improving WASH (Water, Sanitation, and Hygiene) behaviors.

In partnership with Quicksand, a Human-Centered Design (HCD) studio, the first phase of this work focused on understanding the behaviors and systems surrounding household food consumption. We worked closely with households, vendors, and adolescents in three districts–Khulna, Bagerhat, and Barisal–using HCD research tools like interviews, observations, and participatory methods.

Key insights highlighted challenges like traditional norms affecting food distribution, limited storage solutions, lack of dietary diversity, and unsafe food handling. Through gender analysis using the Jhpiego and USAID IGWG frameworks, the project also uncovered how social norms restrict women's access to nutrition, markets, and decision-making power.

USAID
FROM THE AMERICAN PEOPLE

USAID (United States Agency for International Development) is the primary funder of the Feed the Future Bangladesh Nutrition Activity (BNA). Through its financial and strategic support, USAID is enabling long-term efforts to reduce malnutrition and improve public health in Bangladesh.

Abt ASSOCIATES
BOLD THINKERS DRIVING REAL-WORLD IMPACT

ABT Associates is a global consulting and research firm focused on improving health and social outcomes. In this project, they are the implementing partner for the USAID-funded Bangladesh Nutrition Activity (BNA). They provide technical assistance to government bodies like the NNS, DGHS, and IPHN.



THE PHASE 2

We are now moving into Phase 2, which focuses on pilot testing three selected intervention opportunities by USAID that aim to:

1. Promote safe practices in cooking and storage
2. Encourage healthy food choices and equitable food distribution
3. Improve access to agri-inputs and kitchen infrastructure in homesteads

Phase 2 Design Context

Quicksand, in Phase 2 of their work on Bangladesh's nutrition initiatives, conducted in-depth ethnographic research to understand public health procurement systems. Their field immersion revealed key challenges such as limited digitization, fragmented workflows, and widespread reliance on informal practices. Despite these gaps, the study also uncovered the behavioral patterns and analog tools that users depend on in their everyday work.

These insights informed the design of mobile carts and contributed to envisioning a procurement platform that is sensitive to real behaviors and systems–one that supports and enhances existing practices rather than attempting to replace them outright.

Following this foundational research, Quicksand proposed the concept of a 'Moving Cards' solution – a low-tech, modular tool designed specifically for environments with low digital infrastructure and resource-poor conditions such as those found in parts of Bangladesh. This solution bridges the gap between analog familiarity and digital accountability.





My research will significantly complement influential communication and user experience (UX) strategies those align with user mental models to drive nutrition-related purchases in informal retail environments, such as carts and mandis.

Why I Chose This Project

Nutrition remains a critical concern in regions with limited access to structured food systems. Malnutrition and poor dietary choices remain pressing public health challenges in Bangladesh, especially among low-income urban populations.

In countries like Bangladesh and India, a substantial percentage of the population purchases food from informal vendors such as street carts or local mandis. While these channels are abundant, they often lack structured or influential communication around nutrition. The gap between availability and informed decision-making presents an opportunity for design-led interventions.

Designing for better food choices.

This research investigates how consumers in such informal markets make choices about nutrition-related products. This report suggests actionable communication and UX strategies those influence these decisions, by observing behavioral, environmental, emotional cues that influence food buying decisions. Conducted within the Indian context, the research seeks to derive insights that will inform the eventual design of a mobile cart system proposed for Bangladesh.



OBJECTIVE

1. Understand Consumer Decision-Making:

   Examine how consumers in India make purchasing decisions when buying nutrition-related products from mobile carts.

2. Analyze Alignment with Communication Techniques:

   Investigate the congruence between user mental models and existing communication strategies.

3. Evaluate Persuasive UX Strategies:

   Assess the role of UX strategies in influencing purchasing behavior.

4. Identify Effective Communication Strategies:

   Determine best practices and culturally adaptive frameworks that drive higher engagement and sales for nutrition in informal retail settings.

Defined by intent, grounded by reality.

The primary focus is on identifying behavior patterns, decision-making triggers, and systemic gaps that shape everyday food choices.

The Scope

- Ethnographic field research with vendors, buyers, and community members
- Behavioral mapping using models like COM-B, Fogg, and the Transtheoretical Model
- Identification of key insights and pain points in nutritional decision-making Personas
- Development of opportunity areas and early-stage solution directions (tactile and screen-based)

The Limitation

1. **Contextual Transferability**
   Insights from informal Indian markets may not fully apply to Bangladesh due to cultural, economic, and systemic differences.

2. **Limited Sample Size**
   The study's depth came from just nine participants, limiting broader generalizability.

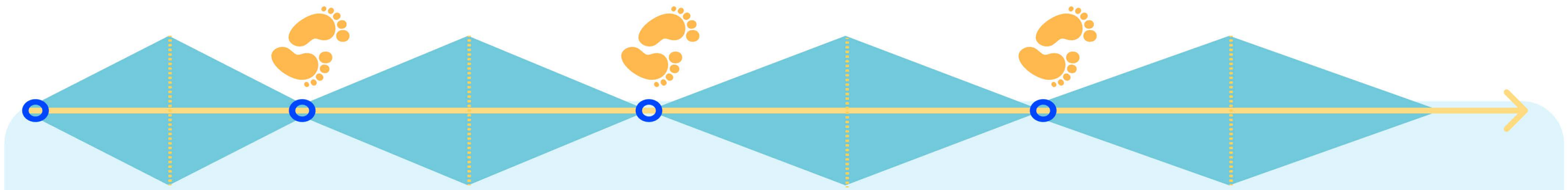
3. **Lack of Prototype Testing**
   Design concepts weren't tested in real-world settings, leaving behavioral assumptions unvalidated.

Research Approach

> **This is where the project got real, messy, and meaningful.**

Research timeline

Every journey leaves footprints
– here are mine.



January

1. Concept development

- Research problem, scope, and objectives
- Project timeline
- Research Plan

February

2. Research

- Primary research
- Secondary research
- Ethnographic research

March

3. Analysis

- Insights
- How Might We (HMW)
- COM-B Framework
- Coding Data points
- Empathy maps, journey maps

April

4. Ideation

- Design Stategies
- Solution development
- Iteration
- Prototype

Research Methodology

The research is grounded in a human-centered design approach, employing qualitative methods that blend ethnographic inquiry with design synthesis:

- Primary Research:

  Conducted interviews and discussions with both vendors and buyers across informal market settings. Emphasis was placed on understanding motivations, routines, and communication touchpoints , perceptions of nutrition, and vendor communication.

- Ethnographic Observations:

  Field visits involved observing real-time buyer–vendor interactions at informal settings , noting behavioral cues, negotiation tactics, and product visibility, product selection processes.

- Data Analysis:

  Raw insights were coded using theme-based analysis. Insights were further synthesized into stakeholder maps, journey maps, empathy maps, and “How Might We” problem framings.

- Behavioral Framework: COM-B Model

- The COM-B model from the Behavior Change Wheel was employed to interpret and organize behavioral drivers. This model frames behavior as the outcome of interactions between:

- Capability (C): Psychological and physical ability to perform the behavior.
- Opportunity (O): Social and environmental conditions enabling the behavior.
- Motivation (M): Emotional and cognitive processes that direct behavior

Behavioral Ecosystem

Pre-Purchase

Homemaker

Kitchen, past experiences

Plans based on habit, memory, past failures

Elders

Verbal interaction

Validate or challenge food choices

Children

TV, family discussion

Influence shopping lists, ask for specific foods



During Purchase

Homemaker

Cart interaction, Selection

Compare prices and freshness

Vendor

Cart display, speech

Offers deals, displays items, answers buyer queries

Co-buyer

Shared cart space

Influence by buying something or giving feedback

Post-Purchase

Children

Eating moment

Accepts or rejects dishes

Homemaker

Cooking, serving

Tries to please others, avoids failure/rejection

STAKEHOLDER

Homemaker Elders Children Vendor Co-buyer

TOUCHPOINTS

Where or through what medium the stakeholder is interacting with the food decision process

ACTIONS

Action taken during each phase (ie, Pre-purchase, During purchase, Post-purchase).

Research Tools

Curious conversations don’t just happen—they’re gently designed.

Discussion Guide

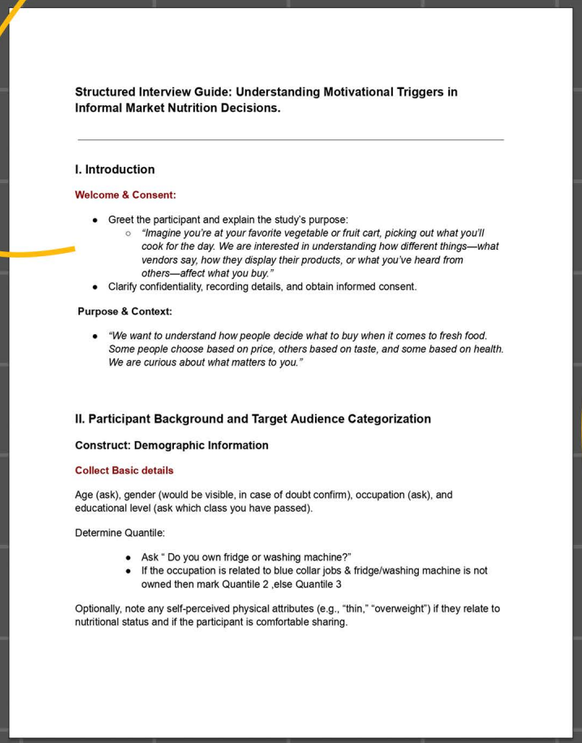
Made a discussion guide before going for primary research. The discussion guide helped me cover everything – from basic demographics to deep behavioral or attitudinal insights.

A semi-structured discussion guide was created to explore key themes such as :-

- Participant Background and Target Audience Categorization
- Purchasing Habits for Raw Food Materials
- Self-Perception of Nutrition
- Artifact Interaction at the Point of Sale
- Exploring Influential Communication & UX Influences
- Vendor Interaction & Verbal Communication

A discussion guide should begin with a clear introduction that welcomes the participant, explains the research context, ensures consent, and sets expectations for confidentiality.

Interviewer instructions should help distinguish overlapping behaviors



Structured Interview Guide: Understanding Motivational Triggers in Informal Market Nutrition Decisions.

I. Introduction

Welcome & Consent:

- Greet the participant and explain the study's purpose:
  - *"Imagine you're at your favorite vegetable or fruit cart, picking out what you'll cook for the day. We are interested in understanding how different things—what vendors say, how they display their products, or what you've heard from others—affect what you buy."*
- Clarify confidentiality, recording details, and obtain informed consent.

Purpose & Context:

- *"We want to understand how people decide what to buy when it comes to fresh food. Some people choose based on price, others based on taste, and some based on health. We are curious about what matters to you."*

II. Participant Background and Target Audience Categorization

Construct: Demographic Information

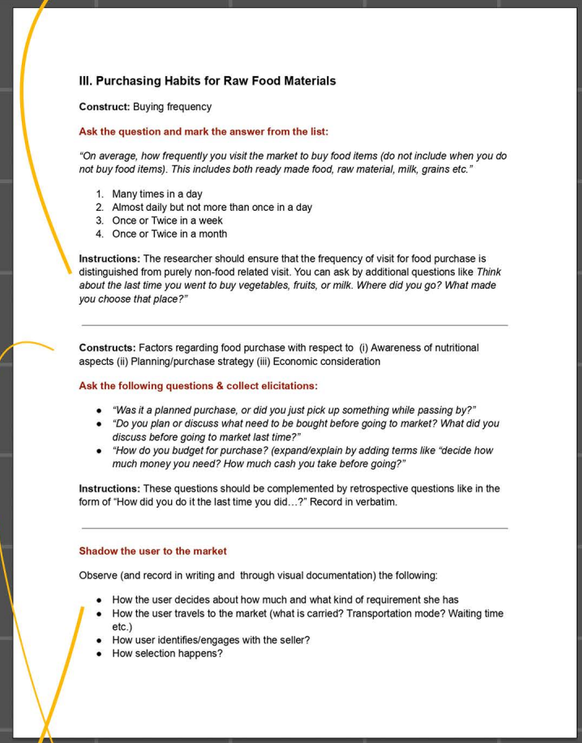
Collect Basic details

Age (ask), gender (would be visible, in case of doubt confirm), occupation (ask), and educational level (ask which class you have passed).

Determine Quantile:

- Ask " Do you own fridge or washing machine?"
- If the occupation is related to blue collar jobs & fridge/washing machine is not owned then mark Quantile 2 ,else Quantile 3

Optionally, note any self-perceived physical attributes (e.g., "thin," "overweight") if they relate to nutritional status and if the participant is comfortable sharing.



III. Purchasing Habits for Raw Food Materials

Construct: Buying frequency

Ask the question and mark the answer from the list:

"On average, how frequently you visit the market to buy food items (do not include when you do not buy food items). This includes both ready made food, raw material, milk, grains etc."

1. Many times in a day
2. Almost daily but not more than once in a day
3. Once or Twice in a week
4. Once or Twice in a month

Instructions: The researcher should ensure that the frequency of visit for food purchase is distinguished from purely non-food related visit. You can ask by additional questions like *Think about the last time you went to buy vegetables, fruits, or milk. Where did you go? What made you choose that place?"*

Constructs: Factors regarding food purchase with respect to (i) Awareness of nutritional aspects (ii) Planning/purchase strategy (iii) Economic consideration

Ask the following questions & collect elicitations:

- *"Was it a planned purchase, or did you just pick up something while passing by?"*
- *"Do you plan or discuss what need to be bought before going to market? What did you discuss before going to market last time?"*
- *"How do you budget for purchase? (expand/explain by adding terms like "decide how much money you need? How much cash you take before going?"*

Instructions: These questions should be complemented by retrospective questions like in the form of "How did you do it the last time you did…?" Record in verbatim.

Shadow the user to the market

Observe (and record in writing and through visual documentation) the following:

- How the user decides about how much and what kind of requirement she has
- How the user travels to the market (what is carried? Transportation mode? Waiting time etc.)
- How user identifies/engages with the seller?
- How selection happens?

Observational or shadowing cues can be added to deepen contextual insight.

It should be structured around key parameters, each linked to a construct being explored. For each construct, include targeted questions, follow-up probes, and optional hints to guide an open conversation.

Structured Interview Guide: Understanding Motivational Triggers in Informal Market Nutrition Decisions.

I. Introduction

Welcome & Consent:

- Greet the participant and explain the study's purpose:
  - *"Imagine you're at your favorite vegetable or fruit cart, picking out what you'll cook for the day. We are interested in understanding how different things—what vendors say, how they display their products, or what you've heard from others—affect what you buy."*
- Clarify confidentiality, recording details, and obtain informed consent.

Purpose & Context:

- *"We want to understand how people decide what to buy when it comes to fresh food. Some people choose based on price, others based on taste, and some based on health. We are curious about what matters to you."*

II. Participant Background and Target Audience Categorization

Construct: Demographic Information

Collect Basic details

Age (ask), gender (would be visible, in case of doubt confirm), occupation (ask), and educational level (ask which class you have passed).

Determine Quantile:

- Ask " Do you own fridge or washing machine?"
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Optionally, note any self-perceived physical attributes (e.g., "thin," "overweight") if they relate to nutritional status and if the participant is comfortable sharing.

III. Purchasing Habits for Raw Food Materials

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3. Once or Twice in a week
4. Once or Twice in a month

Instructions: The researcher should ensure that the frequency of visit for food purchase is distinguished from purely non-food related visit. You can ask by additional questions like *Think about the last time you went to buy vegetables, fruits, or milk. Where did you go? What made you choose that place?"*

Constructs: Factors regarding food purchase with respect to (i) Awareness of nutritional aspects (ii) Planning/purchase strategy (iii) Economic consideration

Ask the following questions & collect elicitations:

- *"Was it a planned purchase, or did you just pick up something while passing by?"*
- *"Do you plan or discuss what need to be bought before going to market? What did you discuss before going to market last time?"*
- *"How do you budget for purchase? (expand/explain by adding terms like "decide how much money you need? How much cash you take before going?"*

Instructions: These questions should be complemented by retrospective questions like in the form of "How did you do it the last time you did…?" Record in verbatim.

Shadow the user to the market

Observe (and record in writing and through visual documentation) the following:

- How the user decides about how much and what kind of requirement she has
- How the user travels to the market (what is carried? Transportation mode? Waiting time etc.)
- How user identifies/engages with the seller?
- How selection happens?

- How negotiation happens?
- How are items being carried?

IV. Self-Perception of Nutrition

Construct: Perceived health needs (If any food gives them particular nutrition value, Benefits their body in a certain manner), Nutrition knowledge (What they perceive is the ideal diet for their family. Consumer awareness(regarding nutritious food)

Ask the following questions & collect elicitations:

- *"If I asked you to describe your eating habits, what would you say? What all do you think about while purchasing food, does nutrition or other factors come first? What are your frequent purchases?"*

  Determine

  - Varites of food items they consume, Likeliness regarding particular items.
  - The number of meals they intake.
  - Their priority motivation before purchasing food items.
  - Identify their dependencies on other family members,(if any).
  - Identify barries,(Ask: *What makes it difficult for you to choose "particular" food over other options?*

- *"Has there ever been a time when you had to choose between something 'healthy' and something 'tasty'? What did you do?"*
- *"If you were to give advice to someone who wants to eat healthier ,what would you tell them?"*
- *What foods do you believe are the healthiest? Why do you think so?*

Instructions: Elicit real experiences instead of abstract opinions. If they quantify data note that. Record the likeliness of buying certain items over others. Peer debriefing (compare responses across participants).

V. Exploring Influential Communication & UX Influences

Pre-Purchase Environment & Initial Attraction

Purpose: Understand attraction triggers without leading the participant.

Construct: Consumer attention(consumer noticing particular details at the site), perceived freshness.

Ask the following questions while leading them to the context (Activity driven)

- *" While walking into a busy market. Different vendors are calling out to customers, some have colorful displays, and some have signs. Can you define what specifically caught your attention?"*
- *"What made you stop at a particular vendor's cart instead of another?"*

Activity: The researcher should let the consumer walk through the site,(sabzi mandi, individual carts, moving carts, etc.) and then observe once the consumer finishes the purchase and then ask the above questions.

Instructions: Member checking (validate responses by rephrasing them to the stakeholders during interviews). Observe the visual aesthetics of the site they prefer to purchase from.

VI. Vendor Interaction & Verbal Communication

Construct: Vendor credibility, message framing (tonality used by vendor).

Purpose: Capture authentic stories of persuasion in action.

Ask the following questions

- *"Have you ever had a vendor convince you to buy something you weren't sure about? Can you tell me what happened?"*
- *"Do you remember specific words vendors use that make you feel like their food is fresher or better?"*

Shadow the user to the market

Observe (and record in writing and through visual documentation) the following:

- Observe vendor-buyer conversations in real-time.
- Record key phrases, body language, and responses from multiple buyers interacting with the same vendor.
- Identify keywords like "fresh," "organic," "best quality," "straight from the farm" and how they are framed differently for different customers.

VII. Artifact Interaction at the Point of Sale

Concept: Experiential marketing.

Attention Mapping (Identifying Focus Areas)

Ask the following questions

“Have you ever tried a free sample from a vendor? What did it make you feel?”

“What all you look at while buying (particular food item)?”

Instructions: Let them **speak freely**, and listen for patterns in their reasoning.

VIII. Conclusion

- **Thank the Participant:**
  - Express appreciation for their participation and insights.
- **Next Steps:**
  - Inform them about how their input will help refine communication strategies to encourage healthier purchasing habits.
- **Optional Follow-Up:**
  - Provide contact details in case they have further thoughts or questions regarding the study.

The discussion guide helps me structure my research and stay focused during fieldwork. It ensures I cover all key areas like purchasing habits, nutritional perceptions, and vendor interactions, while still allowing space for open-ended responses. By preparing it beforehand, I go into each session with clarity and consistency, which makes it easier to compare responses and notice patterns. It also helps me build trust with participants and capture deeper, more authentic insights from their real-life experiences.

Observational framework

Buyer Decision-Making Process | **Cart Vendor Behavior & Communication**

Time-based purchase behavior

Ingredients picked first, speed of selection, hesitations

Preference for familiar ingredients

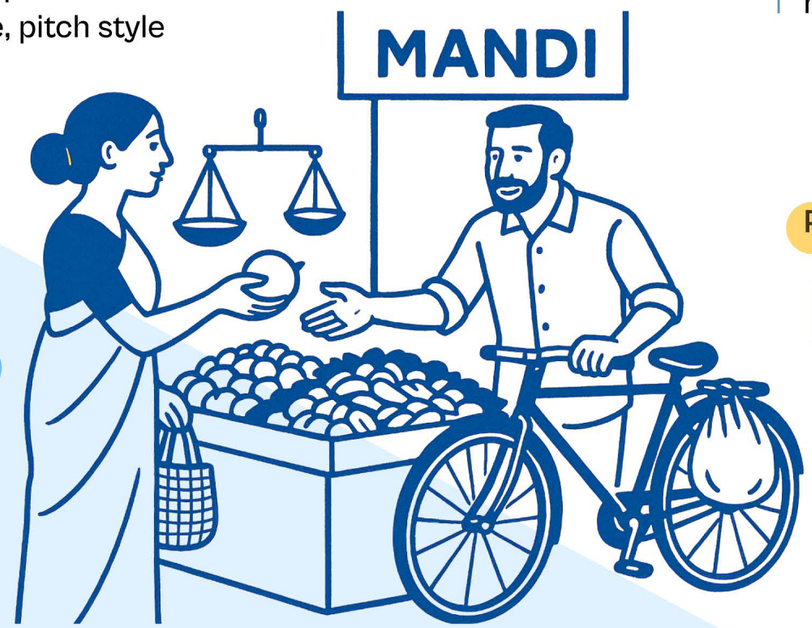
Immediate reach for certain items, use of memory cues

Mental categorization of food

"This is for salad", "We don't cook this", resistance to multi-use

Vendor's communication style

Tone of voice, persuasive terms, volume, pitch style



Influence of cooking sequence

Items bought in cooking order, repeated sequence

Engagement with different types of buyers

Variation in behavior toward regular vs. new buyers

Product highlighting and arrangement

Items placed in front, order of arrangement, emphasized items

Sales pitch content

Focus of pitch (price, freshness, quantity)

Community Influence on Food Behavior

Peer influence at the cart

Buyer checking other baskets, echoing others' purchases

Generational validation in decision-making

Mention of "my mother used to buy this", hesitation toward new items



Observation Method

- Field observation
- Interview reflection
- Timeline recording
- Verbal probing
- Field shadowing
- Visual mapping
- Direct observation

Observation Point

Indicators to Note

The research employs an ethnographic observational framework, focusing on real-time behaviors, workflows, and interactions within informal markets.

Research Ethics & Consent Approach

This research was conducted with a strong emphasis on ethical responsibility, especially given its engagement with individuals in informal and low-income contexts. All participants were informed about the nature of the project, its academic purpose, and their right to withdraw at any point.

Verbal consent was obtained from each participant before conducting interviews or observations. Participants were made aware that:

- Their responses would be used strictly for academic and design research purposes
- No personal or identifying information would be recorded or disclosed
- They could skip any question or withdraw from the interaction at any moment

Photographic or visual documentation, where applicable, was taken with additional permission, and all materials have been anonymized to maintain dignity and privacy.

The research approach was guided by the principles of empathy, transparency, and respect for context – Acknowledging that ethical design begins not at the solution, but at the very first conversation.

Research Synthesis

> **So many voices, so many insights—this is where they all began to connect.**

Building Understanding

To begin synthesis, I first conducted pilot interviews using an early version of the discussion guide. These initial conversations helped identify what was working and what needed refinement. Based on this, I revised the questions and structure of the guide.

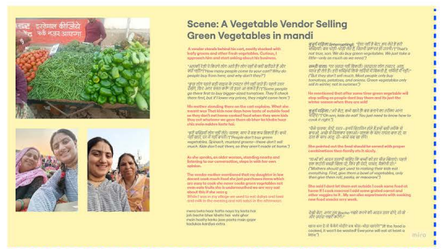
Following this, I carried out the primary fieldwork, which included:

- 6 structured user interviews
- 3 ethnographic observations and informal interviews
- Total: 9 participants engaged

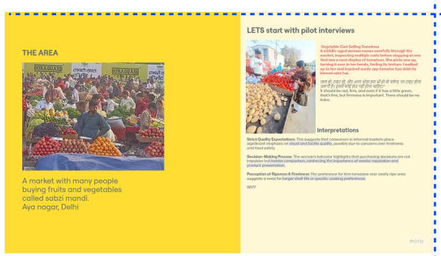
Each session was documented and transcribed. I then began organizing the data – identifying recurring behaviors, phrases, and moments. From these, I created:

- Journey maps
- Behavioral models (COM-B)
- User personas

The process was iterative – early insights informed adjustments in framing and follow-up questions during ethnographic work. This layered analysis laid the foundation for the core insights and behavioral patterns that followed.









Vendors often place fast-selling items like tomatoes and onions at the front of their carts. Less common or nutritious vegetables are tucked behind

Several mothers admitted their children refuse to eat greens or sabzis. Instead, kids demand packaged foods they see on TV. As a result, even health-conscious parents stop buying vegetables that will be wasted at home.

Stories









“मंडी में ज़्यादातर औरतें खरीदारी करने जाती हैं, आदमी कम होते हैं। कई आदमी भीड़भाड़ में मोल-भाव नहीं करना चाहते। वो अपनी बाइक से आते हैं, यहाँ रुकते हैं, जल्दी से सब्ज़ी लेते हैं और निकल जाते हैं”

From

“लौकी के साथ रायता बना दो, या दाल के साथ आलू दो—बच्चे सब खा लेंगे”

“सस्ती और ताजी दोनों चीज़ें देखते हैं।”



“ऐसा नहीं है बेटा, हम लेते हैं हरी सब्ज़ियाँ। बस थोड़ी-थोड़ी लेते हैं, जितनी ज़रूरत हो उतनी।”

The

Ground

For many buyers, the market is not a place to explore – it’s a place to complete tasks quickly. They avoid unknown vegetables not out of disinterest, but because they don’t want to risk rejection at home or waste time cooking something unfamiliar.

In many households, women manage strict cooking timelines – meals must be ready before husbands leave for work and children head to school. One woman explained how she wakes before dawn, prioritizing fast-cooking ingredients like potatoes and tomatoes over anything that takes time.

Research

36, Househelp

Makes food decisions daily Manages budget

30, Delivery worker

Occasional purchaser, especially when spouse is unavailable.

38, Domestic worker

Primary purchaser, cooks as well buys for house.

58, Elder of family

Primary decision-maker but cooking is done by her daughter in law.



35,Vegetable Wholesaler

Engages with customers while selling vegetables in mandi.

Demographics

27, Tailor

Joint decision-maker; shops with mother-in-law

40, Fruit Wholesaler

Engages with customers near residential areas.

31, Caregiver

Buys for children, cooks for kids in the house.

User Understanding

The next section presents:

- User personas →
- Journey Maps →
- COM-B behavioral model →

1. Capability: Do they know how to make the better choice?
2. Opportunity: Does the world around them support that choice ?
3. Motivation: Do they value that choice enough to act on it?

Rekha – Time Pressed Homemaker



Persona Overview

Rekha / Mid-30s
Homemaker

Family: Married, two school-aged children
Daily Routine: Manages household and cooking; tight morning schedule

"I grab what I need from the cart—there's no time to experiment in the morning."

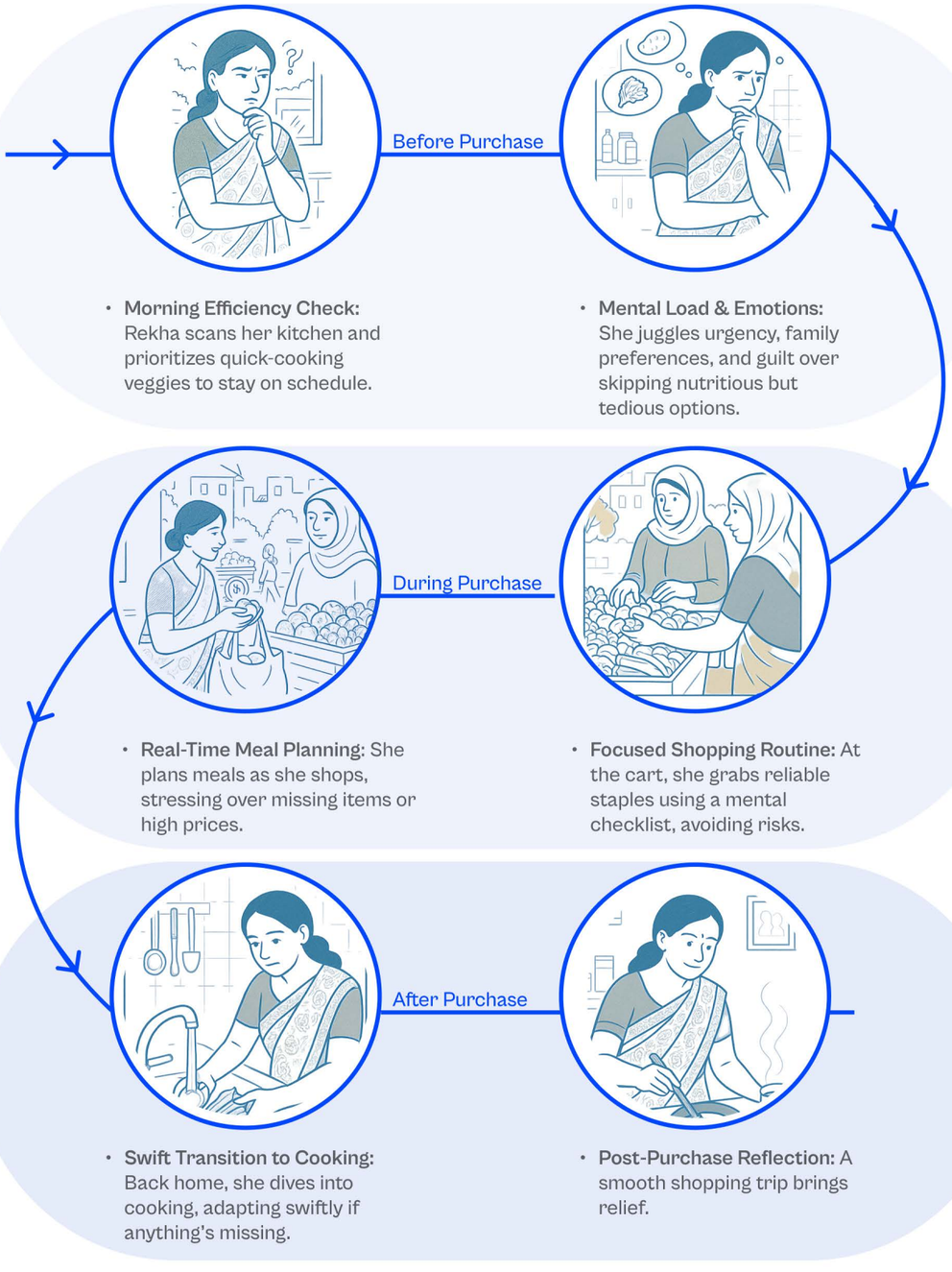
User Needs

- Rekha needs a quick, predictable shopping experience that fits into her tight morning schedule.
- She relies on nearby vendors and familiar ingredients to ensure timely, foolproof meals.
- While she desires more nutritional variety, she needs them to be low-effort, time-efficient, and backed by trusted sources (like peer validation or simple recipes).

Pain Points

- Complex ingredients disrupt Rekha's tightly packed mornings, causing stress.
- She faces a mental burden of daily meal planning with little room for error and limited tools for improvisation.
- The guilt of not offering dietary variety lingers, but lack of prep time, vendor inconsistency, and absence of supportive solutions keep her stuck in a loop of repetition

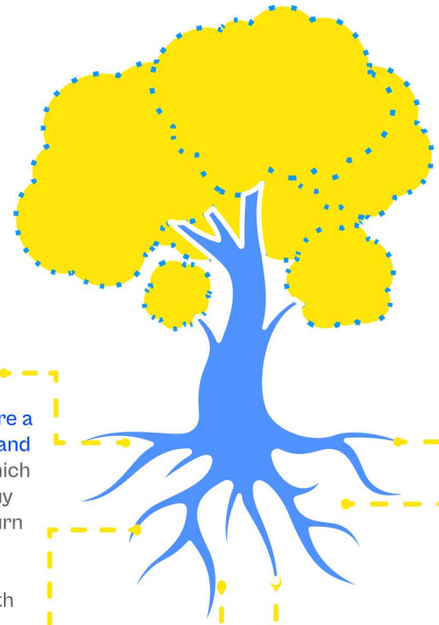
Journey of Rekha



- **Morning Efficiency Check:** Rekha scans her kitchen and prioritizes quick-cooking veggies to stay on schedule.
- **Mental Load & Emotions:** She juggles urgency, family preferences, and guilt over skipping nutritious but tedious options.
- **Real-Time Meal Planning:** She plans meals as she shops, stressing over missing items or high prices.
- **Focused Shopping Routine:** At the cart, she grabs reliable staples using a mental checklist, avoiding risks.
- **Swift Transition to Cooking:** Back home, she dives into cooking, adapting swiftly if anything's missing.
- **Post-Purchase Reflection:** A smooth shopping trip brings relief.

COM-B Analysis

Routine-Driven Choices Shaped by Time, Access, and Reliability



Capability

Strengths:

- Rekha knows how to prepare a range of traditional dishes and multitask in the kitchen, which allows her to confidently buy common ingredients and turn them into meals without a second thought. Physically, she's capable and quick with prep work.

Limitations:

- Her skills are stretched thin when dealing with unfamiliar or time-intensive foods. She knows how to cook greens in theory but lacks the tools or speed to do so efficiently. Her capabilities are best suited to routine tasks.

Motivation

Positive Drivers:

- Rekha is driven by a sense of responsibility and pride in providing meals that keep her family satisfied. Past experience taught her that sticking to known ingredients leads to a smoother morning. She's health-conscious but prioritizes timeliness and ease.

Inhibitors:

- Her habits are deeply ingrained–buying the same vegetables daily is automatic, helping her avoid stress. Emotionally, she avoids risks to maintain peace of mind. The fear of failure outweighs any benefit of experimenting, so she sticks to what works.

Opportunity

Enablers:

- The informal vegetable vendor in her neighborhood each morning is a convenient opportunity that fits her routine. Her family expects her to cook and gives her decision-making power.

Barriers:

- There's no access to services like pre-cut vegetables or early delivery. The community reinforces "safe" choices, offering little push to innovate.

Nasreen – Habitual Vendor



Persona Overview

Nasir / Late 40s
Mobile vegetable vendor

Daily Routine: Follows regular neighborhood route and schedule, tightly structured around customer needs and market timings

"I know who likes what – that's how I keep them coming back."

User Needs

- Reliable access to fresh, affordable wholesale produce and consistent daily customers.
- Needs ways to preserve perishable items in heat – shade, cloth wraps, or faster sales.
- Needs fair prices from wholesalers to make nutrient-rich items financially viable.

Pain Points

- Customers often hesitate to try new or time-consuming vegetables, limiting his options.
- Daily cart-pulling and long hours under the sun make handling delicate items harder.
- Perishable veggies wilt fast without storage – weather directly affects what he can sell.

Journey of Nasreen



Preparation Phase



- **Early Morning Prep:** He starts at dawn, buying fast-moving veggies and arranging his cart to attract attention.
- **Anticipation & Planning:** He reflects on past sales, sets prices, and begins the day with quiet determination.



Active Selling Phase



- **On-the-Go Response:** He tracks sales live, pitches slow movers, manages cash, and adapts to competition.
- **Customer Engagement:** He sells efficiently, chats with regulars, and adjusts his pitch to buyer cues.



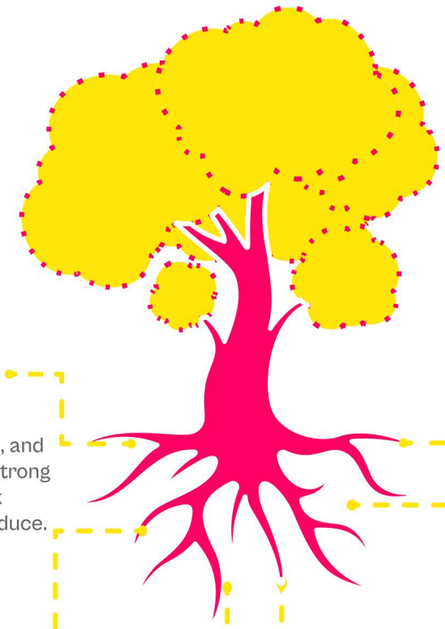
Post-selling Wrap-up



- **Post-Sale Review:** He deals with leftovers, counts earnings, and tweaks his buying plan for tomorrow.
- **Evening Emotions:** He ends the day with pride or stress, but resets quickly for the next morning.

COM-B Analysis

Experienced and Routine-Driven, Yet Constrained by Environment



Capability

Strengths:

- Experienced with staples; confident in pricing, selling, and engaging regular buyers. Strong physical stamina and quick workflow with familiar produce.

Limitations:

- Unfamiliar with handling or promoting nutrient-rich vegetables. Rigid habits; lacks adaptability to add new items. Lacks tools or skills for prepping delicate greens

Motivation

Positive Drivers:

- Driven by daily income and reliability of staples. Emotional security from routine; past success reinforces behavior.

Inhibitors:

- Fear of loss from unsold items. No reward or demand for healthier vegetables. Habits and survival focus discourage experimentation.

Opportunity

Enablers:

- Reliable demand for staples from loyal customers. Market setup favors consistency and routine.

Barriers:

- Limited space and no storage for greens. No demand signals or support for selling new items. External risks (weather, spoilage) discourage adding perishable goods.

Sita – Child-Guided Buyer



Persona Overview

Sita / Late 20s
Working

Family: Mother of a 8-year-old son
Daily Routine: Visits street vendors during preschool pickup or evening errands

"Some days we come home with more mangoes than I planned, but at least he's eating fruits"

User Needs

- Easy access to appealing but healthy food options that satisfy both nutrition goals and child's desires.
- Quick, efficient shopping experiences to match her child's short attention span.
- Sita needs a safe, manageable market environment where vendors are patient and shopping is quick.

Pain Points

- Time pressure due to the child's limited patience leading to rushed decisions or missed purchases.
- Conflict between buying what's healthy versus what the child demands, causing guilt or tension.
- Sita struggles with multitasking – managing shopping and childcare at once.

Journey of Sita



Before Purchase



- **Before Purchase:** Sita plans healthy meals but stays ready for junk food demands to shift her intentions.
- **Arrival at Market:** She steers her child toward healthy picks while battling tempting junk food distractions.



During Purchase



- **Thoughts During Shopping:** She balances picking fresh food with managing her child's cravings for less healthy treats.
- **Vendor Interactions and Child's Requests:** Kind vendors help, but constant snack requests force Sita to adjust her buying .



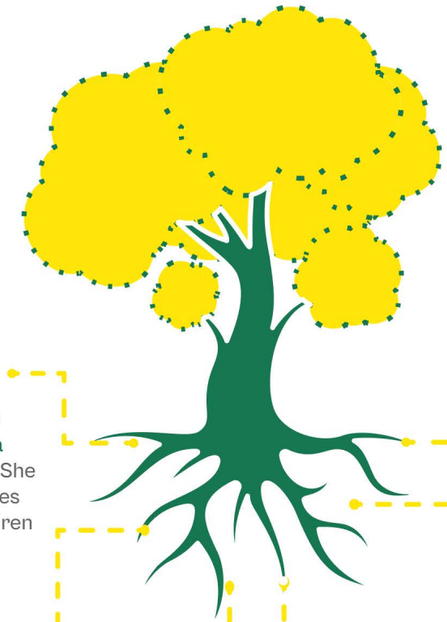
After Purchase



- **After Purchase:** Sita reviews groceries, realizing compromises between nutrition goals and calming her child.
- **Reflections and Emotions Post-Purchase:** Feeling relief mixed with guilt, she reflects on how junk food desires shaped her shopping.

COM-B Analysis

Managing Healthy Shopping and Parenting Challenges in Informal Markets



Capability

Strengths:

- Sita understands nutrition basics and once followed a healthier cooking routine. She has parenting skills and uses strategies to manage children during shopping.

Limitations:

- Balancing grocery planning and handling children strains her focus. She struggles to resist persistent junk food demands while multitasking. Fatigue and pressure lead her to opt for quicker, less nutritious choices. Over time, her morning menu has shifted from nutritious options to convenient, processed items.

Motivation

Positive Drivers:

- Sita wants to please her children and avoid conflict. Quick satisfaction from seeing them happy reinforces junk food buying. Emotional fatigue leads to giving in, believing it saves time and stress , more appealing in busy mornings.

Inhibitors:

- Her original motivation to cook healthy is diluted by daily stress. Emotional guilt is masked by temporary relief of a calm child.

Opportunity

Enablers:

- The local market provides easy access to packaged snacks and ready-to-eat items. Children find these foods appealing and easily accessible. Vendor familiarity allows quick purchases without much decision-making.

Barriers:

- Crowded or chaotic market spaces discourage browsing for healthy options. Family structure doesn't support shopping alone or preparing elaborate meals.

Rajesh – Commuter Buyer



Persona Overview

Rajesh / 32
Office worker

Family: ives with his wife; often shops for her cooking needs.
Daily Routine: Works full-time; tired after work; stops quickly at informal markets before heading home.

"Just pack the fresh ones quickly, I'm too tired to think today."

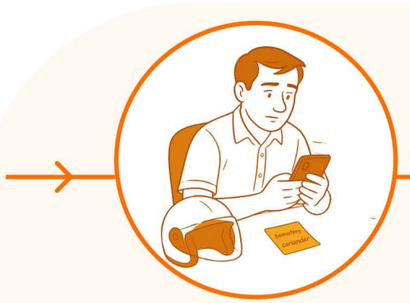
User Needs

- Quick, convenient, and easy shopping process aligned with his daily commute.
- Trust in the vendor for fair prices and decent quality without needing close inspection.
- Basic availability of fresh produce even in the evening hours.

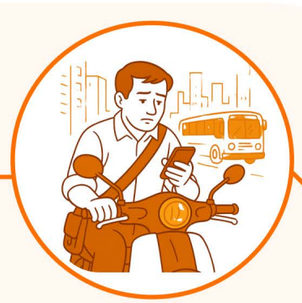
Pain Points

- Time pressure and frustration if items are unavailable or slow to buy after work.
- Fatigue reducing his patience for bargaining or inspecting produce carefully.
- Occasional mistakes due to limited produce knowledge (wrong or poor-quality purchases).
- Stress if family expectations aren't met due to limited or wrong purchases.

Journey of Rajesh



Before Purchase



- **Spontaneous Planning Amid Commute:** Minimal planning during commute, driven by duty and hopes of vendor availability.
- **Fatigue Meets Responsibility :** Fatigued yet responsible, with mild anxiety about forgetting or choosing wrong.



During Purchase



- **Focused and Practical Interactions:** Focused, practical buying with brief, trust-based vendor exchanges.
- **Routine and Reliance on Vendor:** Grabs familiar staples quickly, relying heavily on vendor guidance.



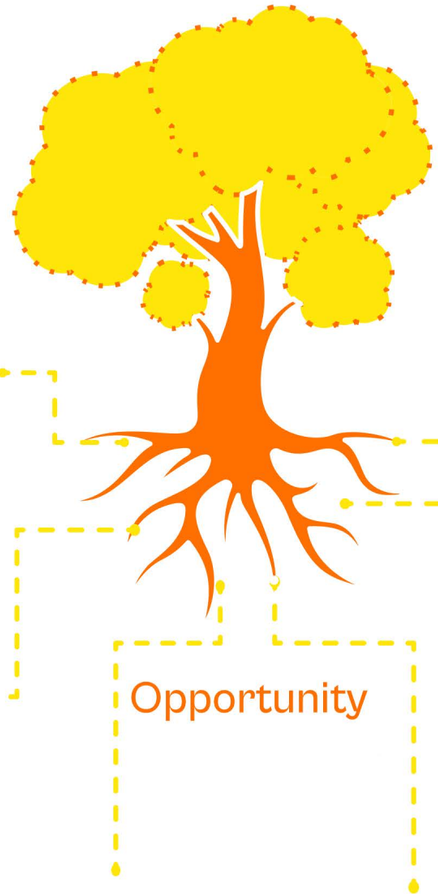
After Purchase



- **Relief in Routine:** Relieved and reassured by routine, with occasional impatience if delayed.
- **Debrief and Transition to Home:** Reflects on the trip, feels accomplished, and transitions into home mode.

COM-B Analysis

Rajesh's Convenient, Routine Grocery Shopping Amid Time Constraints



Capability

Strengths:

- Rajesh's physical capability is good; he can carry groceries and travel. He has basic knowledge of vegetables and what his family likes. He compensates for limited expertise by relying on vendor suggestions and sticking to familiar items. Uses strategies like phone checklists and routines to manage memory strain.

Limitations:

Physically taxed when carrying both work and grocery items after a long day. Not skilled in fine quality assessment or selecting exotic items. Mental fatigue after work affects attention and recall during shopping. Dependent on vendor help for higher-level shopping decisions.

Motivation

Positive Drivers:

- Reflective motivation rooted in duty and practicality – contributing to the household. Sees fresh grocery shopping as healthier and more economical than eating out. Motivation to fairly divide chores (if married)

Inhibitors:

- Fear of forgetting items or causing inconvenience creates pressure. Risk of demotivation if errands are not appreciated or become burdensome.

Opportunity

Enablers:

- Informal vendors along his commute allow him to integrate shopping into his routine. Flexible vendor timing caters to working people. Socially acceptable norm of men helping with groceries encourages the behavior. Trust and familiarity with the vendor may result in better treatment. Delegation from spouse creates a supportive dynamic for his role.

Barriers:

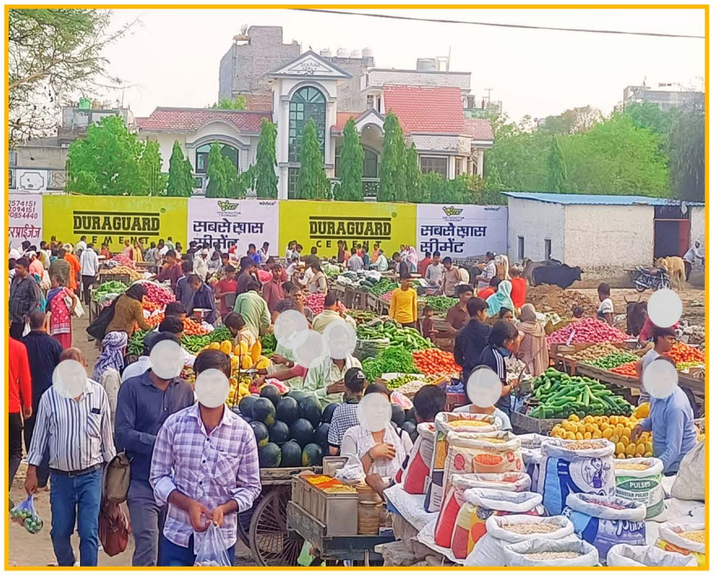
- Late work hours can lead to missed vendors or low-quality leftovers. Weather or seasons may reduce vendor presence. Lack of alternate shopping options during his available hours. Potential conflict with social/work obligations may reduce available time for shopping.

My Experience

Conducting research in Delhi was a lively experience. My site, Aya Nagar, is a crowded area with many informal markets, including carts and a mandi. The energy and movement of the space made the research very engaging.

I spent around 5 hours daily at the site for two weeks. As I asked questions, people often gathered and answered in groups, giving me cross-opinions. Kids also played a big role, pulling their parents toward certain carts and influencing purchases.

I observed how vendors selling the same items competed mainly through their sales pitches. I watched how the market set up – some vendors had wheel carts, others sold directly from the ground, and green leafy vegetables were always placed at the end of the mandi.









Sabzi Mandi Aya nagar Delhi

Insights

Some insights surprised me. Others made me wonder why we never noticed them before.

Analysis & Insights

Further analysis of these personas helped uncover deep insights – the underlying motivations and problems that are not immediately visible. Insights are important because they reveal why users behave a certain way and highlight areas that need attention for meaningful solutions.

1. Time Pressure Skews Daily Menus

Root Cause
Early-morning cooking windows are short, so meals must be finished fast.

Description
To get breakfast and packed lunches on the table while the food is still hot, women reach for ingredients that cook quickly–onions, potatoes, tomatoes, rice–and skip slower, nutrient-rich greens. The cultural expectation of serving fresh, hot food keeps this “speed first” habit in place.



Short prep time narrows ingredient choice.
Fast-cooking staples win; nutrient-dense greens lose.

2. Familiar Choices Ease Mental Load

Root Cause

High mental strain pushes cooks to lean on familiar recipes, using simple mental shortcuts to lighten cognitive load.

Description

In busy households juggling many duties, planning and cooking from memory feels easier and safer than experimenting. Sticking to tried-and-tested dishes trims decision time, lowers stress, and keeps mealtime on track. Cooking, in this context, is a duty–not a space for discovery–so psychological efficiency rules ingredient and recipe choices.



Familiar recipes act as mental shortcuts.
Memory-based cooking keeps stress and effort low.



3. Nutritional Risk Feels Like Possible Loss

Root Cause

Loss aversion in low-income homes behavioral economics suggests people are twice as motivated to avoid loss than to seek gain.

Description

Even when buyers know greens are healthy, trying a new vegetable means longer prep, possible spoilage, and the chance the family won't like it. With tight budgets, they stick to proven staples unless new items come in tiny, low-stakes portions or samples that de-risk the trial.

Loss hurts more than gain helps. Healthy but unfamiliar foods stay off the plate unless the risk is removed.

4. Familiar Foods Feel Fail-Safe

Root Cause

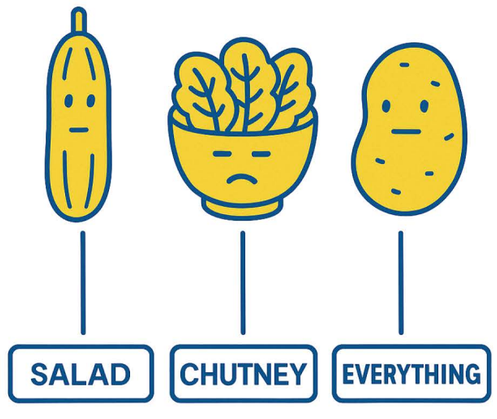
Familiarity bias: cooks trust ingredients they've nailed before because it guarantees an edible, accepted meal.

Description

Onions, potatoes, dal with aloo gobi—these old favorites need no extra thought and rarely flop. Untried vegetables feel risky; one bad dish or a turned-up nose is enough to drop them from the shopping list, so the cycle of safe repeats keeps rolling.



Known ingredients = guaranteed success.
Unfamiliar veggies lose out to **proven crowd-pleasers.**



5. One Veggie, One Use? Think Again

Root Cause

Rigid mental models and cultural labels assign each ingredient a single, "proper" role/Identity.

Description

Cucumbers are tagged as "salad only," spinach as "just chutney," while potatoes get an "all-purpose" pass. This fixed framing stops cooks from trying new preparations—even when other methods are easy—shrinking both variety and nutritional range.

Cultural labels trap versatile veggies in one role.
Rigid framing cuts menu diversity and nutrition

6. Invisible Nutrition (Out of sight, Out of diet)

Root Cause
Absent visual nudging and low salience of abstract health benefits keep nutrition off shoppers' radar.

Description
Nutrition isn't opposed–it's invisible. Without signage, stories, or vendor prompts, buyers judge produce mainly on freshness and price. Health value stays abstract unless shoppers can picture how a vegetable helps someone they care for, like "good for kids' energy."



Price and quantity dominate the conversation.
Nutrition stays unseen and unspoken.



7. Social Conformity Acts as a Safety Net

Root Cause
Social proof as a compensatory mechanism in low-information environments.

Description
In informal markets, shoppers copy what others–mothers, grandmothers, neighbors–are buying to avoid making a wrong choice. Items long approved by family memory hold a privileged spot, while new ingredients lacking that shared endorsement seem risky. Collective validation replaces personal trial, so food experimentation stays rare.

Copying trusted buyers feels safer than guessing.
Without shared approval, new foods seldom enter the basket.

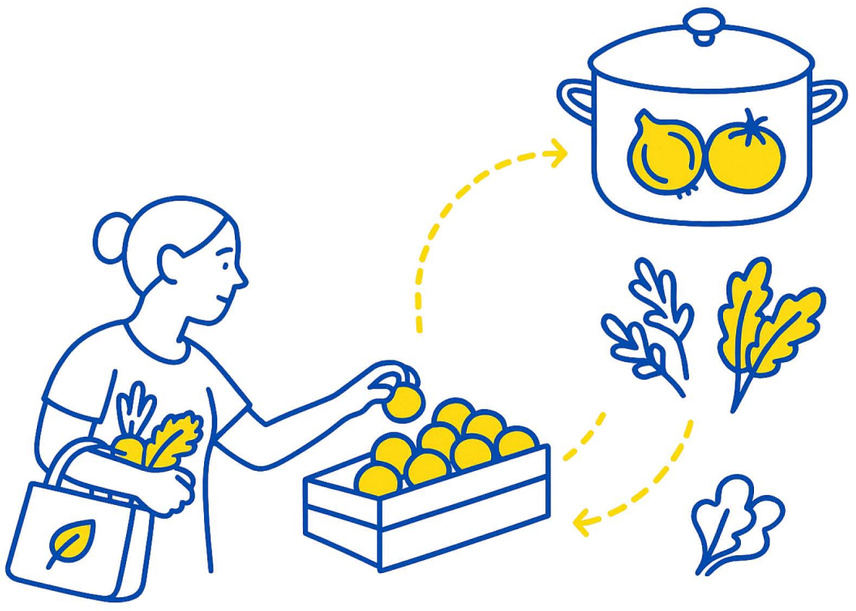
8. Cooking Order Drives Shopping Picks

Root Cause

Action-order bias makes people remember tasks in the sequence they perform them. First steps dominate memory, steering purchases toward ingredients used earliest.

Description

Buyers tend to purchase ingredients in the same order they are used in cooking. Foundational items like onions and tomatoes, which start most recipes, get prioritized and sometimes over-purchased. Nutrition-dense ingredients added near the end–herbs, leafy greens–are mentally deprioritized or forgotten. This subconscious shortcut reinforces the choice of staple items even when they are not the most nutrient-dense.



Kitchen sequence becomes shopping sequence.
Early-step staples **crowd out late-step greens**



9. Vendors Trusted but Underequipped

Root Cause

Vendors Are Socially Embedded but Structurally Unsupported in Driving Food Behavior, so competition and urgency shape their message instead.

Description

Vendors are not just sellers–they are repeat touchpoints in a buyer's routine, familiar and often trusted. However, their messaging is shaped by competition and urgency, not nutrition. Unlike health workers or campaigns, vendors are never equipped or encouraged to talk about food value. As a result, their social trust is underutilized.

Trusted vendors lack tools to talk nutrition. Equip them and their everyday influence can steer healthier buys.

10. Packaged Foods Carry Aspirational Pull

Root Cause

Children associate packaged foods with fun, freedom, and modernity – a form of symbolic consumption. Traditional foods lack emotional or identity-based appeal.

Description

Kids swap dal-rice for Maggi or chips not because they taste better, but because the bright packs and TV spots promise playtime, modern life, and belonging. Traditional or healthy dishes offer nutrition but no catchy story, so they lose the battle for attention and identity.



Brand-driven aspiration beats taste and health. Packaging sells "cool"; home-cooked foods can't match the hype.



11. Shifting Priorities Push Nutrition Lower

Root Cause

Changing household goals–like children's education and women's income generation–have redefined what "care" looks like.

Description

Earlier, women spent more time making food healthier at home. Today, the pressure to secure good schooling for kids and contribute financially means cooking is treated more like a duty than a craft. Health remains a general concern, but "nutrition" as a specific priority has faded. Preparing a nutritious diet no longer holds the same daily weight in busy households.

Education and income now outrank kitchen-time.
Nutrition slips down the priority list in modern family life.

12. Perceived Usefulness Drives Price Acceptance, Not Just Affordability

Root Cause

Shoppers run a “use-return” check–calculating how many meals or how much prep ease they’ll get for the price, not just the rupee tag.

Description

People don’t reject costlier items because they’re short on cash; they reject them when the payoff isn’t obvious. If a vegetable isn’t familiar, flexible, or easy to reuse, the price feels unfair. Even with tomatoes, buyers pick the variety whose longer shelf-life or richer flavor seems worth the extra rupees, not the one that simply carries a “hybrid” tag.



Price feels fair only when **everyday utility is clear.**
Show the stretch and shoppers agree to pay extra.

Conceptualization

> **Every “what if” was rooted in a real human story. I took the insights and asked: now what?**

How Might We

1

How might we create room for curiosity and exploration in food choices without making people feel like they're taking a risk?

2

How might we support food-related decision-making in ways that feel effortless, especially for people navigating multiple daily pressures?

3

How might we align food routines with nutritional goals, without demanding more time, money, or energy from people?

4

How might we make everyday food choices feel rewarding in the moment, even if the real benefits come later?

5

How might we shift how people see ingredients—not just as fixed roles in the kitchen, but as versatile tools for nourishment?

6

How might we spark social momentum around nutritious choices by making them more visible, familiar, and culturally resonant?

CONVERSATION ROADMAP FLIPBOOK

SEASONAL VEGGIE CALANDER

NUTRI MANDI

Note: For the best experience, please refer to the physical copy of this page. It contains separate attachments that are not included in the soft copy. Think of it as a book within a book — something that’s best experienced in person.

Concept 1

After generating the HMW statements, I developed three distinct final concepts–each representing a potential solution aimed at driving the desired change.

Conversation Roadmap: Nudging Nutrition Through Everyday Talks

This concept introduces a structured conversation roadmap between vendors and diverse buyer personas in a sabzi mandi–such as an elder, a child, two women, an adult, and a budget-conscious customer. These conversations are not scripted but follow a designed flow to ensure they are relatable, motivational , and nutrition-aware.

The roadmap empowers vendors to subtly guide buyer choices towards more nutritious options through trust-building, empathy, and contextual cues. By personalizing communication for different customer types, it enhances the likelihood of people picking healthier vegetables and fruits.

What Motivates Vendors to Change Their Communication Style?

Vendors are motivated to change their communication when it builds community trust and enhances their reputation as caring, knowledgeable sellers.
They gain a competitive edge and customer loyalty by offering advice, not just bargains.
Differentiation through nutrition or hygiene tips helps them stand out in a crowded market.

Core Elements of Each Conversation:

Warm opening & rapport building

"Aaj kuch naya lijiye, bohot taaza aaya hai!"

Personalized health or contextual suggestion

"Bachchon ke liye palak bohot accha hai, immunity badhta hai."

Price anchoring or bundle nudging

"Yeh combo mein le lo – zyada sasta aur healthy bhi."

Linking nutrition with everyday life or local beliefs

> “Aap toh roz subah walk par jaate ho, beetroot juice le lo kal se!”

Gentle closing with future nudge

> “Kal methi aayegi – zaroor dekh lena.”

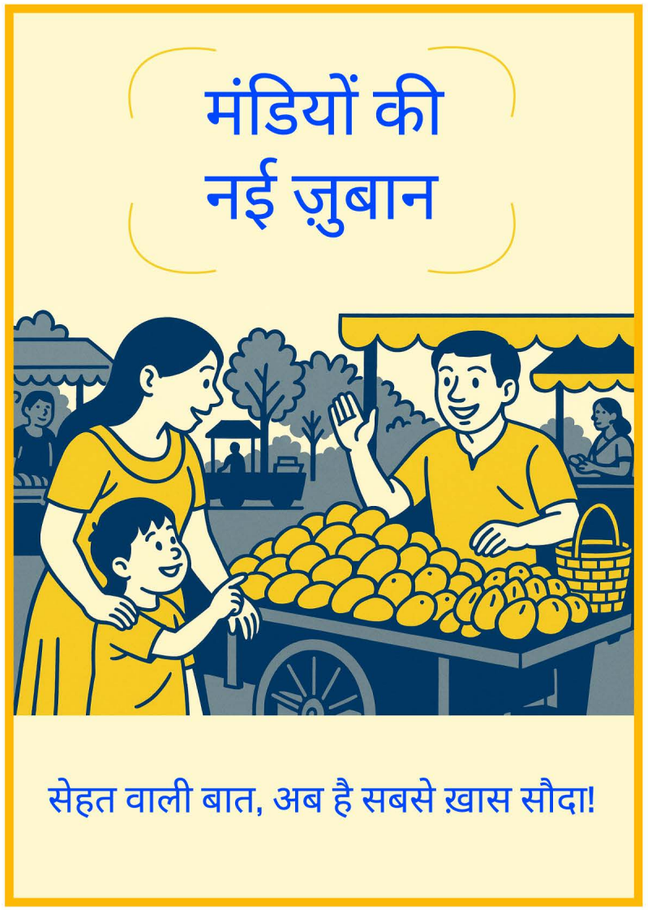
Contextual Validation

In Bangladesh, Market Management Committees (MMCs) trained vendors to share simple health tips, boosting trust and nutrition-focused purchases. Projects by GAIN and Alive & Thrive showed that vendor-led conversations increased sales of iron- and vitamin-rich foods.
Customers also embraced seasonal, healthier options.
This proves structured, low-cost dialogues can drive real dietary change in informal markets.

> The Conversation Roadmap proposes an informal, behaviorally designed approach tailored to Indian sabzi mandis. It adapts the principle into a lightweight, vendor-usable tool that fits within everyday flows and speech patterns, making the intervention culturally fluid and practically scalable.

Read Sample Conversations →

- Two Friends, One Veggie
- Mom, Not This!
- A Health Deal
- What’s Cheap? Quick!
- Apples on a Budget



Concept Deep Dive

This interaction guide, "Healthy Vegetables: A New Way to Talk to Customers," was shared with vendors to help them add simple health messages to their daily sales pitch–like “Spinach increases blood” or “Carrots help eyesight.” Instead of just listing vegetables, they were encouraged to give friendly suggestions, tell short stories, share easy recipes, and tailor their messages to each customer, including kids, elders, and mothers.

The goal was to see if these small, relatable changes in conversation could influence customer choices and promote healthier eating. Vendors were observed to note whether this new way of speaking led to better engagement or buying behavior.

ग्राहक से बात करने का नया तरीका

1. हर सब्ज़ी के साथ एक सेहत की बात बोलो

- पालक? → “खून बढ़ाएगा”
- गाजर? → “आँखों की रोशनी के लिए अच्छा है”
- लौकी? → “पेट को ठंडा रखेगा”

बस एक लाइन – और ग्राहक सोचने लगता है!

2. सब्ज़ी को रोज़ की ज़िंदगी से जोड़ो

- “गर्मी में ककड़ी खाओ – ठंडक मिलेगी”
- “बच्चे पढ़ाई करें – गाजर खाएँ, आँखें तेज़ होंगी”
- “शरीर थका हुआ? – शकरकंद से ताक़त मिलेगी”

3. सिर्फ लिस्ट मत बोलो – सुझाव दो

गलत: “आलू, टमाटर, भिंडी और कुछ?”	सही: “आज लौकी लीजिए – पेट के लिए बढ़िया है”

4. पहले ग्राहक को समझो – फिर सलाह दो

- बुज़ुर्ग दिखे? → “मेथी लीजिए – शुगर के लिए अच्छी है”
- मम्मी आई हों? → “पालक बच्चों के लिए फायदेमंद है”
- मज़दूर भाई? → “कद्दू ताक़त देता है – सस्ता भी है”

5. बड़ी-बड़ी बातें नहीं – छोटी कहानी सुनाओ

- “एक ग्राहक रोज़ करेला ले जाता है – अब शुगर कंट्रोल में है”
- “मेरे भतीजे को पालक पसंद नहीं था – अब सूप पीता है और मज़ा आता है!”

6. आसान रेसिपी भी बताओ

- “पालक पकौड़े बनाओ – बच्चे भी खाएँगे”
- “लौकी का रायता बना लो – गर्मी में बढ़िया रहता है”

7. बच्चों के साथ मज़े की बात करो

- “पालक खाओ – ताक़तवर बनो जैसे कार्टून हीरो!”
- “शाबाश! तुम्हें तो सब्ज़ियाँ पसंद हैं – अच्छे बच्चे हो!”

8. ग्राहक ना भी ले, तब भी बात छोड़ दो

- “आज मत लो, पर कभी try करना – सेहत के लिए अच्छा है”
- धीरे-धीरे आदत बनेगी – और अगली बार वो खुद पूछेगा!

9. याद रखने वाली तीन बातें

- [ ] हर सब्ज़ी के साथ 1 हेल्थ लाइन
- [ ] ग्राहक को समझकर बात करो
- [ ] मुस्कराओ, दिल से बात करो



User Experience Highlights

From Monotone Calls to Warm Greetings
Vendors shifted from just shouting prices to smiling and initiating friendly conversations.

Selling Became a Two-Way Chat
Instead of only weighing vegetables, vendors started engaging in small talks about health and usage.

Confident Use of Health Lines
Vendors easily recalled and shared one-liner health benefits for most vegetable while selling.

Female Vendors Shared Personal Recipes
Women vendors proudly offered home-tried cooking tips, making the interaction more relatable and personal.

Buyers Reaction
The short health lines piqued their interest, and they often paused to hear more. Shoppers reacted warmly to the vendors' efforts.

Concept 2

Playful Promptscape: Redesign of the Sabzi Mandi

This concept reimagines the sabzi mandi not just as a market, but as a dynamic space for everyday decision-making, cultural exchange, and joyful discovery around food. At its heart, this is a human-centric redesign—rooted in how people actually move, choose, talk, and relate to food in informal markets.

Instead of relying on willpower or formal education, this mandi redesign builds on everyday habits and emotions. Features like the Spin-the-Wheel, Ayurvedic Corner, and Veggie Passport make nutrition playful, familiar, and family-driven. It weaves trust, curiosity, and care into the shopping flow. The result is a mandi that nourishes beyond the transaction.

> This concept reimagines the sabzi mandi as a sensory-driven space from spinning wheels to tasting trolleys and building meals with LEGO, it engages sight, sound, touch, and taste to make nutrition joyful and personal.

Core Interactive Features

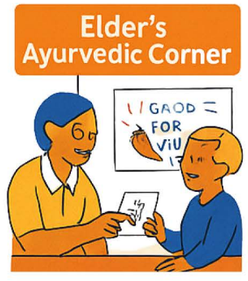
Spin-the-Wheel:

Shoppers spin to win small rewards for selecting surprise nutritious items—making discovery exciting.



Ayurvedic Wisdom Corner:

A familiar, trust-based space offering natural health tips—especially meaningful to elders and caregivers.



Veggie Passport:

Kids earn stamps for trying new vegetables, creating a sense of accomplishment and encouraging families to experiment.



GreenBoost

Spotlight section for green vegetables–especially those that are high in iron, calcium, fiber, and immunity-boosting micronutrients.



A daily signboard

Highlights the “Vegetable of the Day” with discounts and nutrition facts, nudging informed choices.



Rainbow Trail & Bundle Discounts:

Shoppers are nudged to pick a colorful mix of vegetables with visible cues and bundle pricing.



Lego Kitchen:

A hands-on play station where children and adults build balanced meals visually reinforcing nutritional variety through interaction.



OPEN NUTRI MANDI MAP →



Concept Deep Dive

I developed a detailed concept around one specific element of the 'Lego Kitchen' and conducted user testing to evaluate its functionality and engagement potential.

Lego-Style Meal-Building in Sabzi Mandis: A Playful Path to Diverse Nutrition

What Is It?

The Lego-style meal-building concept is a hands-on, visual activity designed for informal vegetable markets. It uses blocks – each representing a different vegetable – that allow homemakers to “build a dish” by assembling combinations. Inspired by the playfulness of LEGO®, this tool helps users plan meals in a creative, low-pressure way.

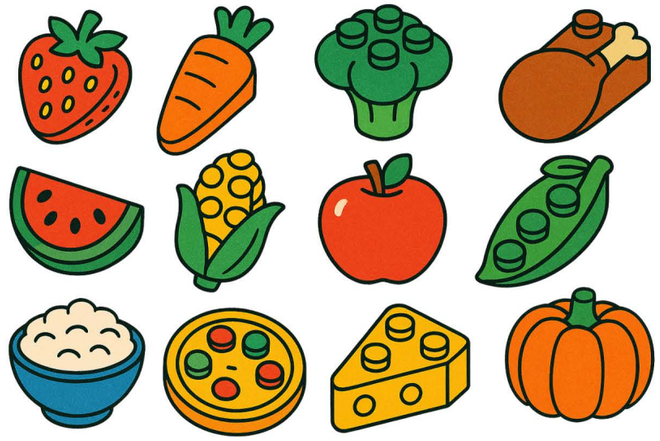
Why It Works

Reduced Risk of Experimentation: Users can try unusual combinations with no real consequence. This removes the fear of cooking failure or wasted food.

Cognitive Reframing: New vegetables (like beetroot, cucumber, spinach) are no longer “risky” – they become fun, visual building blocks for real meals.

Meal Visualization: Blocks combinations help users mentally “see” a complete, nutritious dish before buying.

Motivation Through Challenge: Light gamified prompts – like “Can you make a rainbow meal?” – drive exploration and pride in healthy cooking.



Implications

These concepts were tested with users to assess engagement and influence on meal choices.

Testing summary

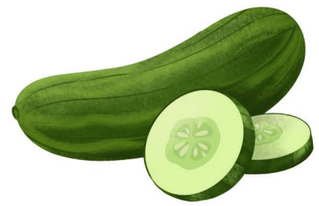
Method: Printed A3 card sets with ~20 vegetables (staples + underused ones). Cards included icons (e.g., “iron-rich”, “great in salad”) and usage prompts.

Participants: 4 homemakers (School teachers & Peons.)

Process: Each participant was asked to:

1. Assemble a familiar dish using cards.
2. Each participant was asked to create a colorful, iron-rich, or otherwise healthier dish using new vegetables.
3. Talk through their cooking logic, meal ideas, and hesitations.

Vitamin K, potassium, and antioxidants.



Cucumber

Hydration Boost | Support Digestion

Cards / Lego blocks would have Qualities of vegetable printed on them .



With school peon



With school teacher



Assembling Vegetable Cards

User Experience Highlights

Reframing “Unfamiliar” as Creative Choices

The Lego-style system helped them see less common vegetables as creative “pieces” rather than scary unknowns, making them more willing to include them in meals.

> पहले चुकंदर को सिर्फ सलाद में ही सोचती थी... पर अब लग रहा है कि मैं इसे सब्ज़ी में भी आज़मा सकती हूँ

Visualizing a Complete Plate Helped Me Feel More in Control

Many homemakers feel overwhelmed by spontaneous cooking. Seeing vegetables grouped like a meal reduces cognitive overload and makes them feel more prepared

> जब मैंने देखा ‘खीरा + दही = रायता,’ तो सोचा, अरे हाँ – ये तो दोनों मेरे घर में हैं।

Encouragement to Use Leftovers Creatively

The Lego meal-building approach helped them see how leftover veggies could be combined into new meals, reducing waste and stretching their budget.

> मैं सोचती रही – मेरी बेटी इसमें से क्या खाएगी? मेरे पति किस बात की शिकायत करेंगे?

It Helped Me Think What My Family Would Actually Like

The game made women mentally simulate real reactions, which is how most food decisions are made. The cards didn’t remove social pressure – but helped navigate it better by preparing them mentally.

> मुझे कभी समझ नहीं आता था कि बची हुई लौकी का क्या करूं। अब लग रहा है कि इसमें पालक या दाल मिलाकर एक नई डिश बना सकती हूँ।

Resistance to Change in Established Cooking Habits

Long-standing family preferences sometimes made it hard to introduce new vegetables, despite the playful approach.

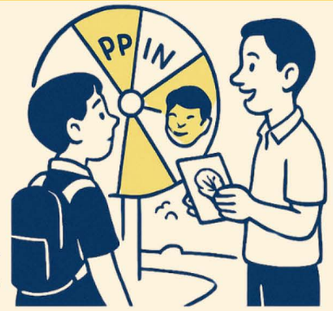
User Flow for Nutri-mandi



Shanta takes her grandson Arjun to the redesigned mandi after hearing about its new playful features from the local health worker.



They enter under an "Eat More Greens" banner that sets the tone for a fun and healthy day.



Arjun spins a wheel landing on purple veggies, earns veggie passport stickers, and Shanta laughs, "Now we must make a rainbow sabzi!"



"Rainbow Trail," they see vegetables arranged by color Shanta thoughtfully chooses new vegetables based on health tips.



Later, Arjun uses colorful "Lego blocks" to create fun sabzi combos, turning mealtime into playful learning.



Shanta and Arjun talk about colors, nutrition, and taste — transforming shopping into an experience of mindful joy.

Concept 3

Everyday Plates, Everyday Plans
A Seasonal Meal Calendar for Better Choices

This concept introduces a seasonally driven, behavior-based meal calendar a meal planning tool designed to encourage nutritious eating through simple, actionable steps. The calendar helps families make better food choices throughout the month by combining familiar ingredients, easy recipes, and low-effort prompts. It is structured to be visually accessible, locally relevant, and behaviorally effective.

> "Spinach in roti, carrots with dal – Little choices can change it all."

What the Calendar Includes

Weekly Focus on Seasonal Ingredient Combinations

Each week highlights a specific vegetable-protein pairing that is seasonal, affordable, and commonly available.

May,

- Week 1: Bottle Gourd + Dal
- Week 2: Spinach in Roti
- Week 3: Carrot + Moong

Three Simple Meal Ideas Per Week

Every weekly focus is accompanied by three easy, culturally appropriate meal ideas,

May,

Lauki Kofta, Palak Poha, or Carrot Pulao with Moong Dal.

Easy-to-Achieve Weekly Prompts

To nudge behavior gently, each week includes a checkbox section with two micro-goals

May,

- Did you try a new veggie
- Did you make a homemade snack?

Try These Veggies This Month

A rotating list of 5 recommended seasonal ingredients to encourage experimentation.

May,

- Palak, Lauki, Cucumber, Banana, Amla.

Balanced Plate Tip

A simple visual reminding users of ideal meal proportions

May,

- ½ veggies/fruits, ¼ grains, ¼ dal or chana.

Monthly Challenge

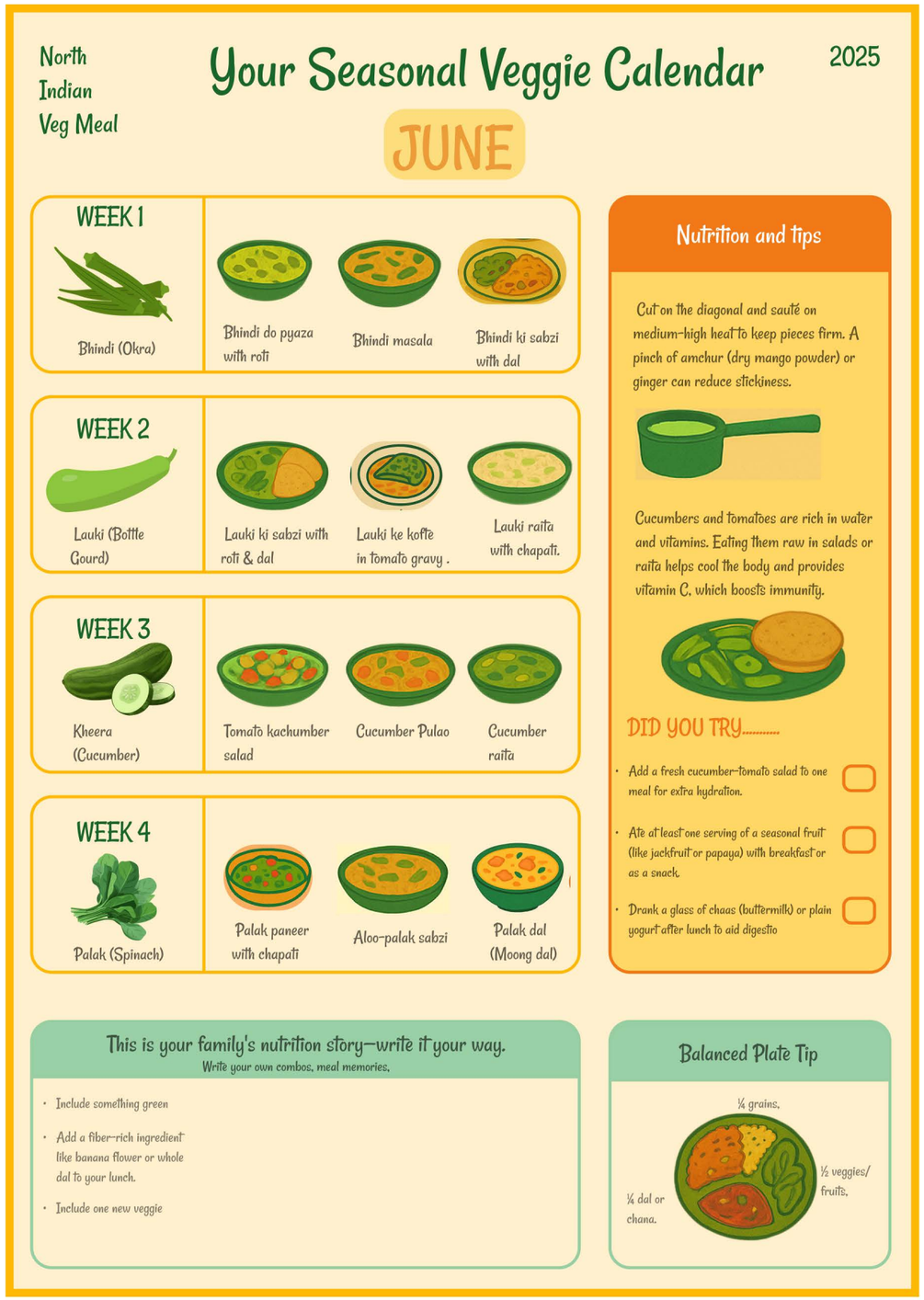
Each month brings a new mini-challenge that inspires families to explore nutritious eating through fun, simple actions

May,

- Cook together on Sunday
- Include 5 veggie colors in their meals (Green, Orange, White, Red, Yellow).

Why This Works

- **Behaviorally grounded:** Uses small, achievable prompts that encourage action without overwhelming the user.
- **Seasonal and local:** Promotes ingredients that are readily available and affordable.
- **Visually guided:** Leverages illustrations, checkboxes, and color to improve understanding and recall.
- **Adaptable and scalable:** Can be customized monthly and shared across individual households, community centers, or public health programs.



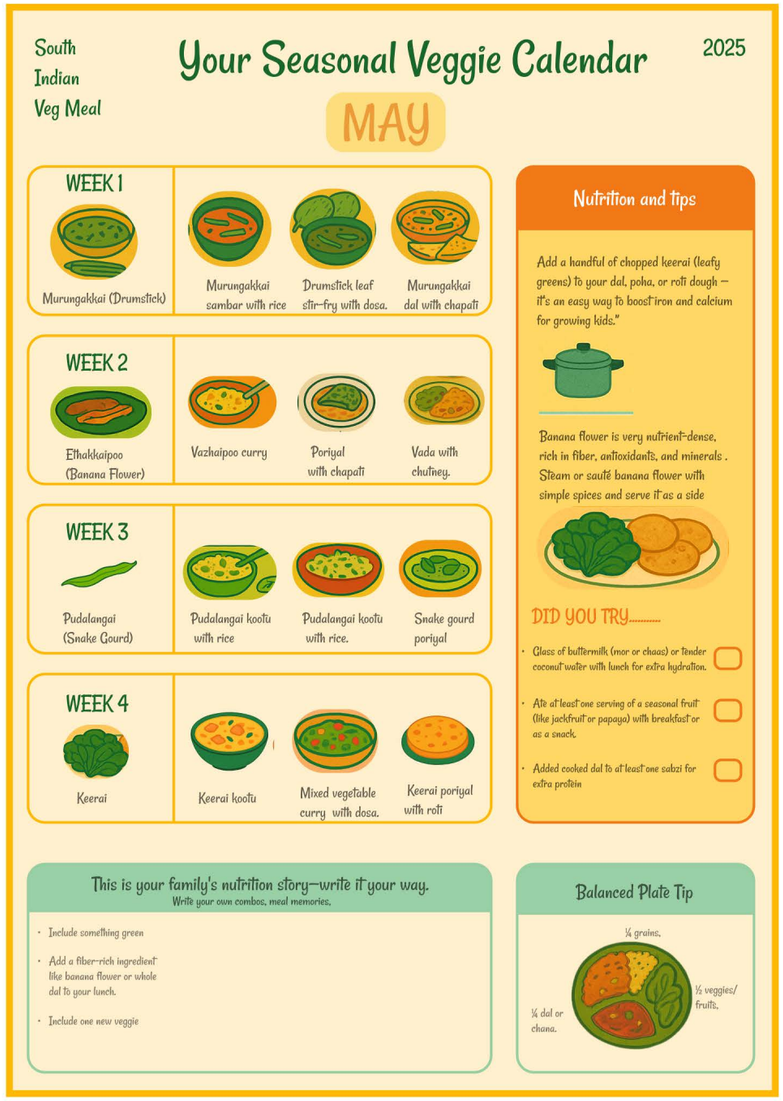
This meal planner can be customized for different regions–East, West, or South India–reflecting local ingredients and eating habits. It also comes in vegetarian, non-vegetarian, or mixed formats, so families can choose what fits them best. It's not a rulebook, but a flexible guide that grows with your plate and your preferences.

Concept Deep Dive

What Is It?

This Seasonal Veggie Calendar (South Indian version) is a printed A4 poster designed to nudge homemakers toward including local, seasonal, and nutritious vegetables like drumstick (murungakkai), banana flower, pudalangai, and keerai in everyday cooking. It features:

- Weekly vegetable-focused dish suggestions
- Nutrition tips for each highlighted ingredient
- A “Did You Try” checklist (hydration, fruit, dal)
- A space to write one’s own weekly combos
- A balanced plate visual cue



Why It Works

Local Familiarity with a Twist: The meals use well-known dishes (e.g., poriyal, sambar, dosa) but introduce seasonal, underused vegetables. This makes trying something new feel safe.

Cognitive Ease via Visual Planning: Users don’t have to decide from scratch—seeing suggested meals saves time and lowers mental effort.

Encourages Self-Reflection & Ownership: The section “Write your own story” invites users to jot down family preferences, favorite combos, or new attempts—turning the calendar into a shared household tradition.

Gentle Nutrition Nudges: Icons and side notes suggest healthier options without lecturing, e.g., “add cooked dal,” or “eat at least one seasonal fruit.”

Implications

These concepts were tested with users to assess engagement and influence on meal choices.

Testing summary

Method: Printed A4 meal planning calendar was given to users.

Participants: 1 Institution Canteen, 3 homemaker

Process: Each participant was asked:

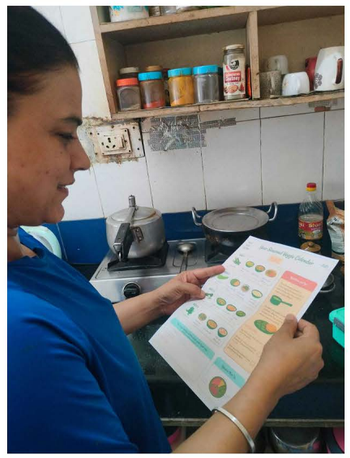
- Users were asked to point out what dishes they already make
- They reflected on whether this would help them try new veggies
- They discussed how they'd use it in their kitchen
- Asked to fill out "your nutrition story" box with real/favorite dishes



In Institution canteen



With Homemaker



With Homemaker

User Experience Highlights

Highlighted Need for Design Flexibility
A few homemakers noted they might not follow the plan strictly or would need to adjust midweek.

Created Shared Meal Conversations at Home
Keeping the poster visible in the kitchen created light conversation around meals–especially with children.

Seasonal Focus Made Users Feel Smarter and More “In Control”
Seeing seasonal veggies validated their existing instincts but added nutritional context (“Oh, it’s rich in iron!”). This deepened their sense of agency, not just over what they cook but why they cook it.

“Did You Try?” Checklist Acts as a Micro-Reflection Tool
Micro-checklists offer a low-pressure self-audit that helps shift thinking from reactive cooking to proactive nutrition planning.

Cultural Anchoring Boosts Trust and Adoption
Including local dishes like Murungakkai sambar, Vazhaipoo curry, and Keerai poriyal built cultural trust. Women instantly connected with the calendar because it reflected their real kitchen stories.

मुरुंगक्कई सांभर तो संडे का ही होता है – अच्छा लगा ये यहाँ लिखा देखा ।

मेरे बेटे ने बोला, ‘अम्मा, आज हरा नहीं दिया!’ उसे बॉक्स टिक करना अच्छा लगता है।

अक्सर तो जो ताज़ा दिखे वही ले लेती हूँ... लेकिन इसमें उसके फ़ायदे बताए हैं।

सोचा उपमा बनाऊँ, फिर देखा टमाटर रस्सम की आइडिया दोनों साथ में सही लगते हैं।

User Flow for Veggie Calendar



As Rekha packs lunch and gets the kids ready, the familiar question crosses her mind: “What should I cook today?”



She glances at “Week 2 – May” on the veggie calendar and decides to try bhindi with curd — something new for her.



With a rough plan in mind, she notes down what she needs — it feels good not to overthink or overbuy.



Carrying the calendar, she buys all veggies from the week’s focus list and shares ideas with a curious neighbor.



Later, Rekha writes her own combo — pumpkin with peas — in the blank notes section of the calendar.



That evening, as her daughter says, “This tastes different,” Rekha smiles quietly and ticks the box: tried bhindi in a new way.

App Concept : Recipe Transformer

Enhancing Everyday Meals with Smart Nutrition

Recipe Transformer is a mobile app that helps users turn their everyday dishes into healthier meals through ingredient-level suggestions. Designed to complement a meal-planning lifestyle, it uses simple photo input and intelligent nutrient mapping to offer personalized, nutrition-forward recipe transformations.

Why This App?

People want to eat healthier, but they often don't know where to start – especially when it comes to improving familiar recipes. This app makes it easy to visualize better food choices by:

- Offering instant swaps based on health goals (e.g. more iron, fibre, or protein)
- Providing before-and-after comparisons of nutrients
- It becomes a decision-support system

Core Functionality

Screen 1: Transform a Recipe

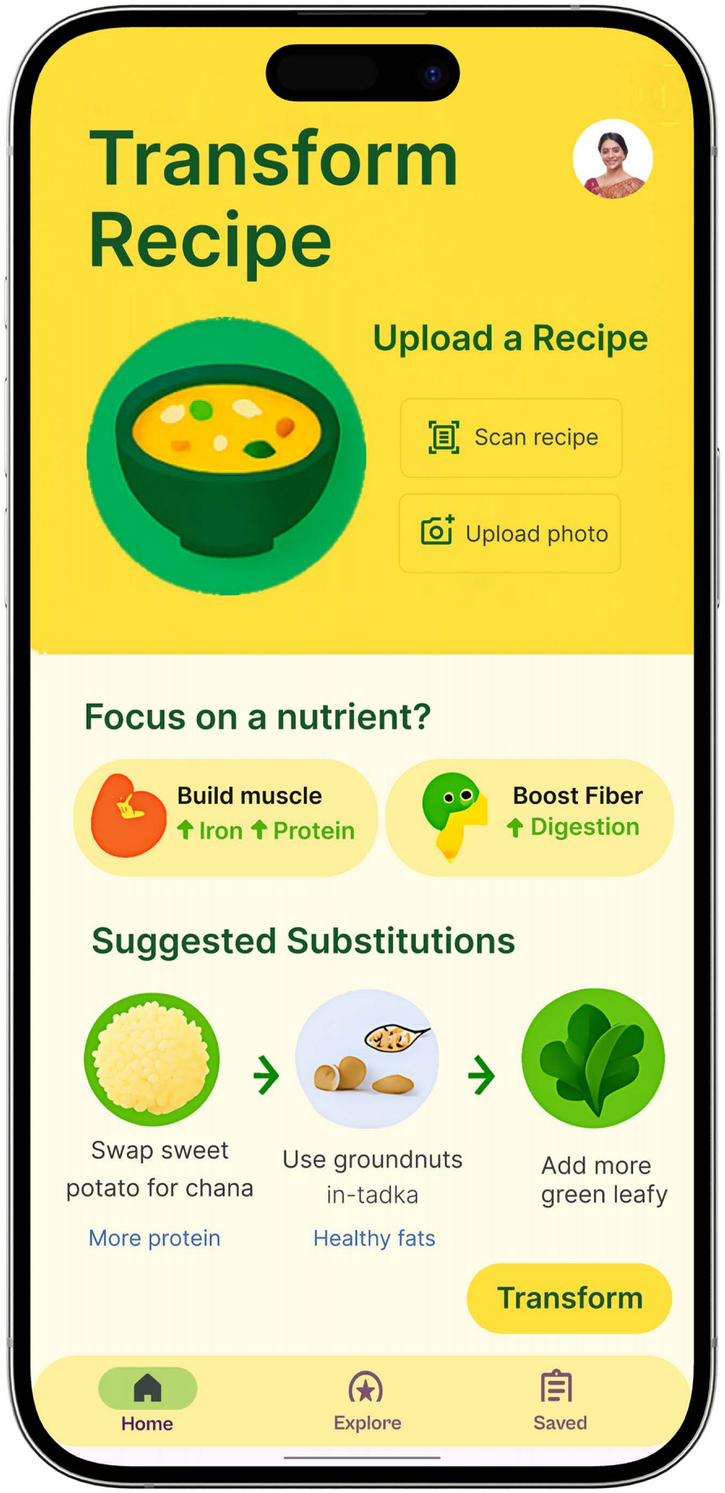
- Upload a dish photo or a recipe
- Select a nutrition goal (e.g. "Boost Fibre")
- Tap Transform to generate healthy variants.

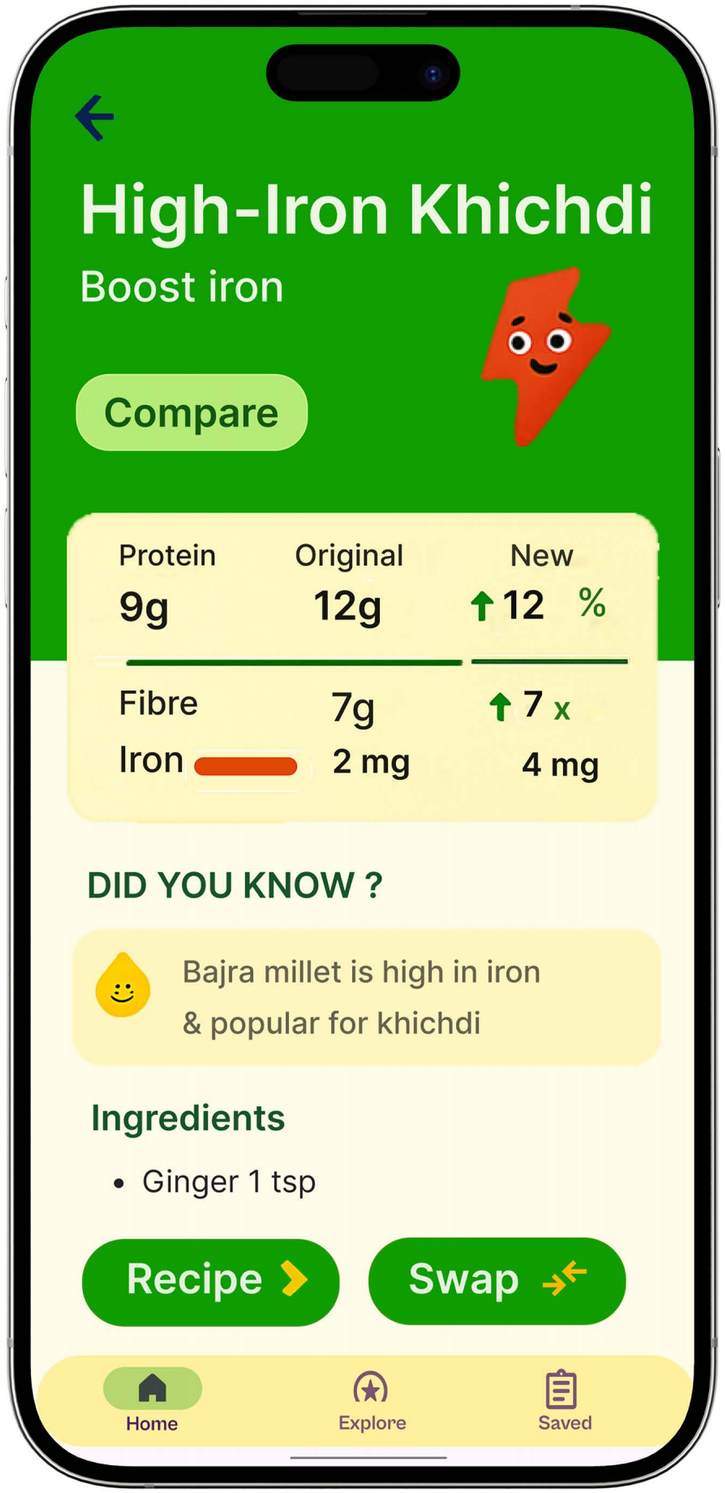
Screen 2: Healthy Variant Output

- View nutrient improvements (protein, fibre, iron)
- Tap Recipe to see full recipe steps
- Tap Swap to see another healthy version of the same dish.

Bottom Navigation

- **Home:** Main flow for uploading and transforming recipes
- **Explore:** Browse nutrition-based dishes, ingredient stories, and cultural swaps
- **Saved:** View your transformed recipes and bookmark favorites


Transform Recipe
Upload a Recipe
Scan recipe
Upload photo
Focus on a nutrient?
Build muscle
Iron Protein
Boost Fiber
Digestion
Suggested Substitutions
Swap sweet potato for chana
More protein
Use groundnuts in-tadka
Healthy fats
Add more green leafy
Transform
Home
Explore
Saved


High-Iron Khichdi
Boost iron
Compare
Protein
Original
New
9g
12g
12 %
Fibre
7g
7 x
Iron
2 mg
4 mg
DID YOU KNOW ?
Bajra millet is high in iron & popular for khichdi
Ingredients
Ginger 1 tsp
Recipe
Swap
Home
Explore
Saved

Epilogue

> **Looking back, it was never just about food —it was about choice.**

What Led Us Here

How These Ideas Fit Everyday Life

The three concepts developed in this thesis weren't born out of abstract brainstorming–they came directly from observing real constraints, behaviors, and aspirations in informal markets. Each idea was shaped by the daily realities of people like Sita shopping with her son, Rekha cooking under tight schedules, Rajesh picking up vegetables after work, and Nasreen building trust with her customers over decades. The concepts respond to real challenges in informal markets, especially the time pressure and mental load women face while making food choices

We noticed that people weren't unaware of nutrition–they were simply navigating too many trade-offs. Trying a new green felt risky when a failed dish could mean wasted money or rejection at the dinner table. So instead of asking people to change how they cook or shop, we focused on creating low-risk, low-friction nudges that would fit into what they already do. That's why we built tools that encourage small trials, make healthier options more visible, and reframe familiar habits rather than disrupt them.

Each concept serves a role: The Seasonal Meal Calendar helps people like Rekha and Sita feel more in control of their food decisions–without adding to their mental load. The Nutri Mandi uses joy, curiosity, and social cues to bring children and families into the act of healthy food exploration. The Conversation Roadmap activates the trust and rhythm that already exists between vendors and buyers like Nasreen and Rajesh–adding just enough structure to nudge change, while staying organic and human.

> Together, these concepts were designed not to teach nutrition from the outside, but to make it feel like something people already value–just made a little easier, more joyful, and more possible.

Learnings

1. Research Is Not Just One Step–It Builds Over Time

I realized that research doesn't happen all at once. It starts with smaller steps like reading and looking around (secondary research), followed by testing your approach with a few people (pilot research), and only then doing proper fieldwork. The first version of how you see the system might change completely after you talk to people and observe how things actually work. But that's the whole point–it's about learning and adjusting as you go.

2. Projects Make More Sense When They Flow Like a Story

Something that really helped me was treating the project like a story. When you arrange your work step-by-step, like the chapters in a book, it becomes easier to see if something's missing or if you've skipped too far ahead. It also helps in explaining your ideas to others. A good flow makes your solutions stronger, because they're backed by a journey that makes sense–from the start to the final idea.

3. Design Should Help People Make Their Own Choices

Another important lesson was about how we design things for people. Instead of telling people what to do, it's better to guide them in a way that helps them feel good about the choices they make. The goal is to let them feel proud of their decisions, not like they were forced into them. Design should give people control, while still gently encouraging them to make better choices. That's when it really works.

4. New Ideas Are Just a Step Forward

One big shift in my thinking was about what we call "new" or "innovative." I used to think it had to be something no one had ever done before. But actually, most good ideas come from mixing things we already know and using them in new ways. What matters is how well the idea fits the situation. Also, showing examples or evidence that something similar has worked before doesn't make your idea less original–it makes it more believable. It means your idea has a good chance of working, because it's grounded in something real.

Conclusion

This research began with a deceptively simple question: What shapes nutrition-related purchasing behavior in informal Indian marketplaces? But as the inquiry unfolded, it became clear that everyday food decisions–especially in low-income, peri-urban contexts–are the product of a deeply layered web of constraints, cultural logic, and relational dynamics. In sabzi mandis, nutrition is not just a matter of what is available or affordable–it is negotiated through habit, emotional labor, family roles, vendor relationships, and survival-based prioritization.

The study surfaced these nuances through ethnographic fieldwork, behavioral mapping using the COM-B framework, and a design research process rooted in empathy and systems awareness. A key insight was that food choices are rarely made in optimal or rational conditions. Instead, they are deeply entangled in the routines of household caregivers, particularly women, who often bear the invisible weight of meal planning, budget management, and feeding others while navigating time scarcity and emotional fatigue.

Rather than introducing disruptive change, the design approach focused on aligning with users' existing behaviors and routines, leading to three concept-level ideas grounded in behavioral insights: The Seasonal Meal Calendar reduces planning fatigue by suggesting seasonal, local meal ideas; The Nutri Mandi uses simple visual cues to make food diversity more intuitive and engaging, especially for children; and The Conversation Roadmap equips vendors with subtle, supportive prompts to guide different types of buyers toward healthier food choices.

Though not yet tested, they represent directionally grounded possibilities for change. They serve as strategic prompts for how communication, behavioral cues, and human-centered design can converge to improve nutrition outcomes without requiring users to overhaul their lives. Ultimately, this thesis argues that nutrition-sensitive design in informal food systems must be humble, participatory, and emotionally intelligent. Change does not begin with telling people what to do–it begins with listening deeply, recognizing what they already do well, and offering small, meaningful nudges that feel familiar, respectful, and empowering.

Future Directions

Based on insights and design directions, the following steps are proposed for implementation, focusing on three core interventions: the meal planning calendar, sabzi mandi redesign, and vendor conversation roadmap.

1. Prototype and Test in Real-World Settings

- **Meal Planning Calendar:** Distribute low-fidelity versions to households, observing use for clarity and integration.
- **Sabzi Mandi Redesign:** Implement low-cost visual changes in select mandis, monitoring buyer behavior.
- **Vendor Conversation Roadmap:** Trial conversation prompts with vendors, refining based on feedback.

2. Engage Stakeholders for Iteration

- Co-design tools with vendors and involve frequent buyers, especially women, in testing.
- Collaborate with local authorities for support in piloting mandi changes.

3. Institutionalize Design Tools in Public Programs

- Partner with nutrition and livelihood missions to embed tools in outreach efforts.
- Position informal markets as platforms for behavior change.

This participatory approach ensures interventions are tested, contextually grounded, and scalable.

Glossary

- **Behavioral Economics:** A field combining insights from psychology and economics to understand why individuals sometimes make irrational or non-optimal decisions. It explains phenomena like loss aversion and decision fatigue.

- **Cognitive Load:** The mental effort required to process and store information. In high-stress environments like daily cooking under time constraints, people prefer familiar routines to reduce cognitive effort.

- **COM-B Model:** A framework that explains behavior as a function of three interacting components—Capability, Opportunity, and Motivation—used here to diagnose barriers to healthier food choices.

- **Empathy Map:** A visual tool used in human-centered design to capture what a user thinks, feels, says, and does—helping identify latent needs and emotions.

- **Familiarity Bias:** A cognitive bias where individuals prefer known options, often defaulting to ingredients or routines they have succeeded with in the past.

- **Loss Aversion:** A behavioral tendency where individuals prefer avoiding losses over acquiring gains. This often results in avoiding unfamiliar foods even if they offer higher nutritional value.

- **Mental Model:** The internal understanding or schema people use to interpret how things work. For example, seeing cucumber only as a salad item is a rigid mental model.

- **Nudge:** A subtle design or environmental change that influences behavior without restricting choice, such as using signage to draw attention to healthy vegetables.

- **Salience:** The quality of standing out and attracting attention. Nutritional benefits often lack salience in informal markets, where price and freshness dominate decision criteria.

- **Social Proof:** A psychological concept where individuals mimic others' behaviors, assuming it reflects correct action—used here to explain herd buying behavior in mandis.

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