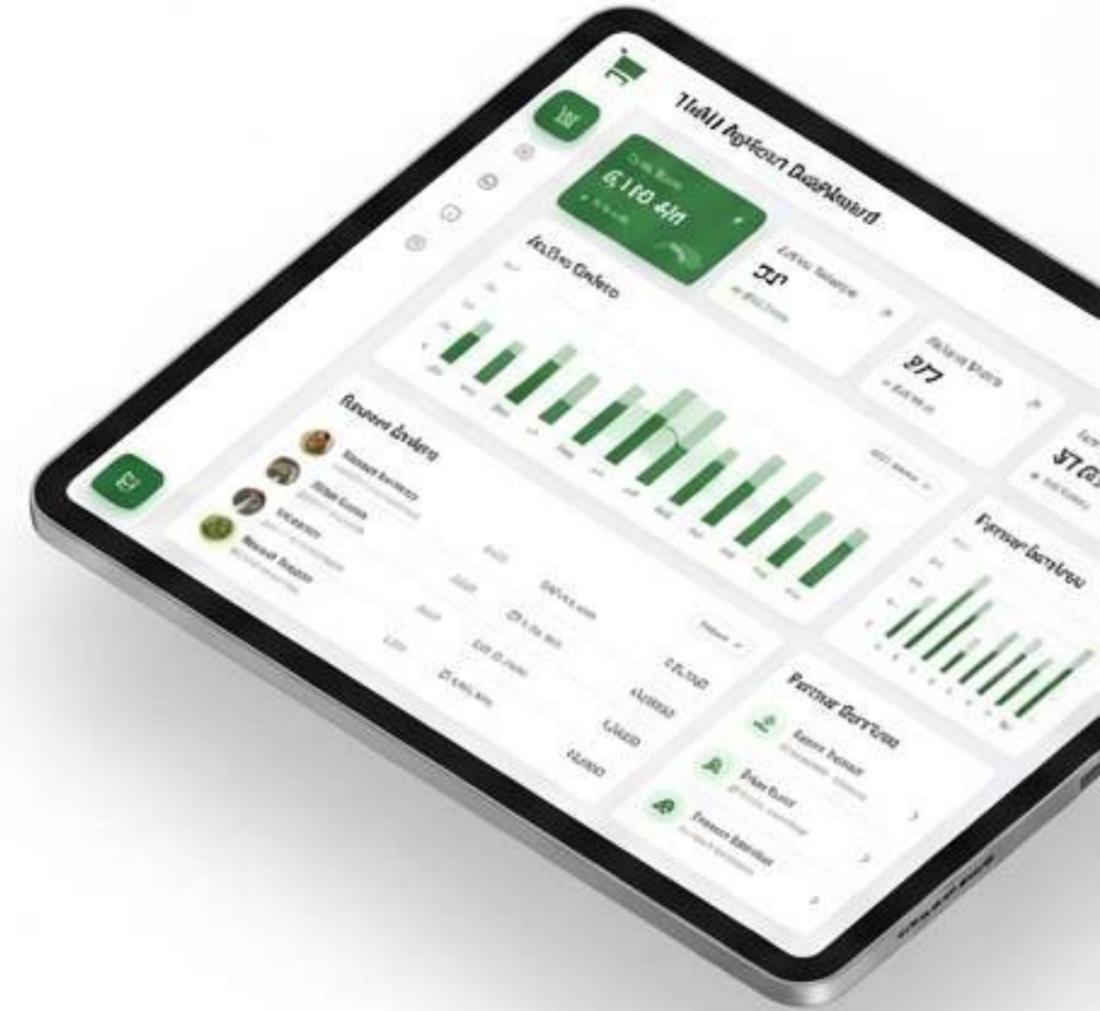




Digital Transformation of TNAU Agricart

Empowering Vendors and Farmers through User-Centric Design.



Failing operations were actively damaging farmer trust

26.83%

**Monthly Order
Cancellation Rate
(May–Dec 2023)**

Driven entirely by vendor inventory mismatches and manual tracking errors.



₹XX,XXX

Average Monthly Revenue Loss
Direct operational leakage from cancelled orders alone.

Human Impact

"It's already a big deal to get farmers to buy online, and one bad piece of feedback can spread very badly through word of mouth." — Operation Manager & Staff Interviews

Deconstructing the complexity required on-the-ground evidence

- The system was failing because it was fundamentally misunderstood.
- Researching the problem space involved virtual interviews with operations managers and one-on-one sessions at Tamil Nadu Agriculture University.

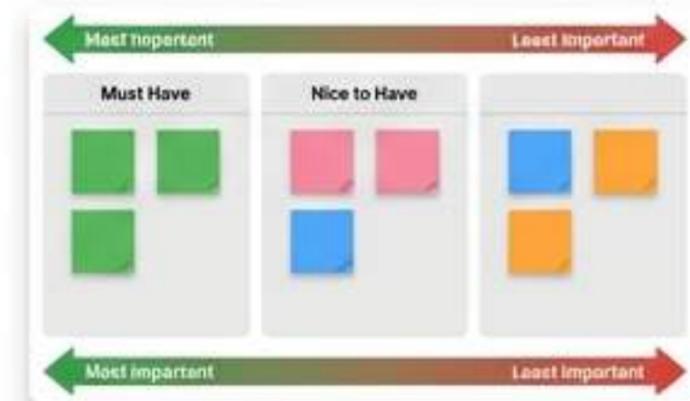
On-the-Ground Reality



The 11 Key Questions

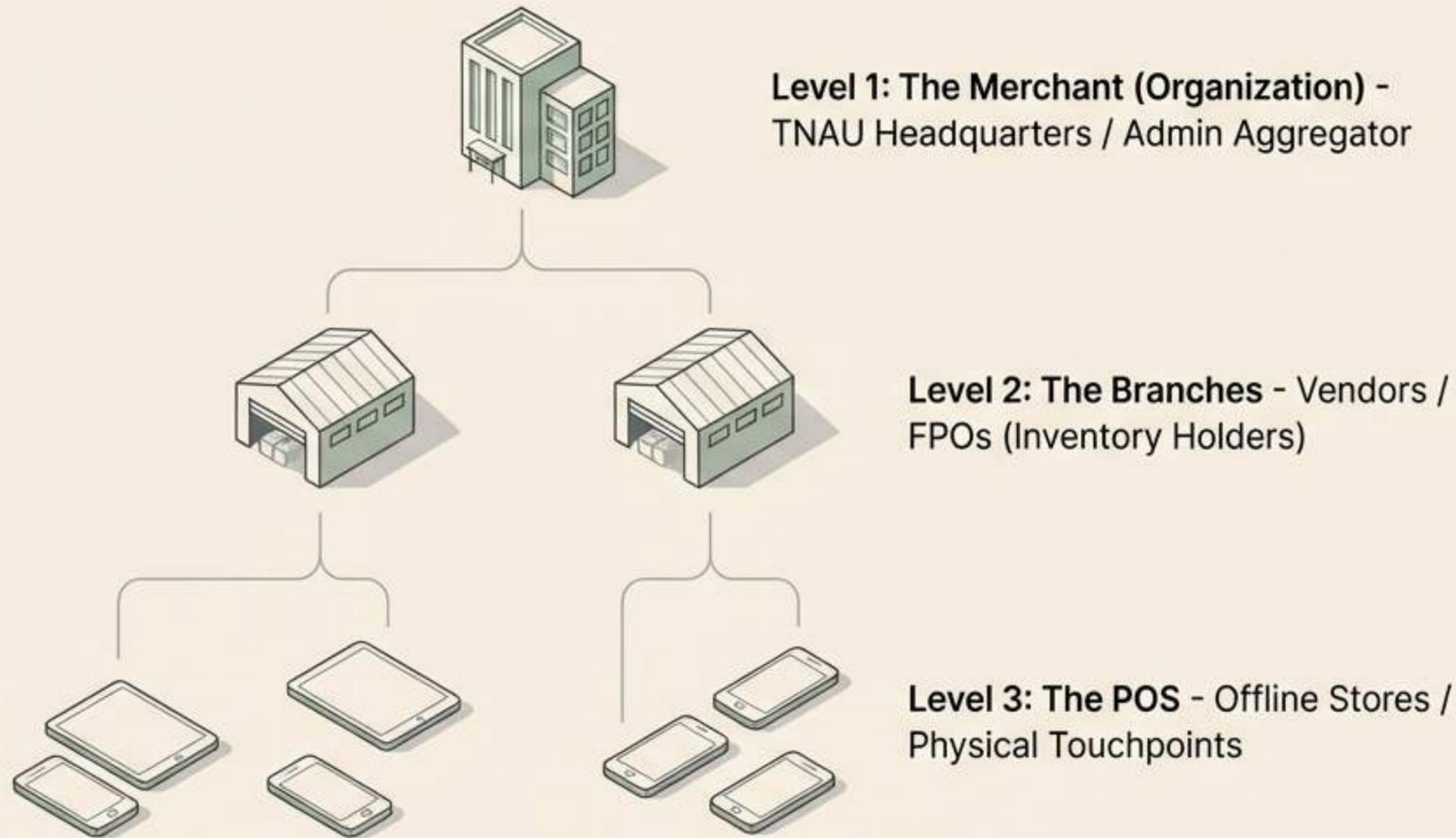
1. Who decides pricing?
2. How do vendors operate?
3. What is the process from sourcing to delivery?
4. What part do they use the most...
5. Their priorities while working?
6. What is their overall use of delivery?
7. How does TNAU deal emotions?

Prioritizing Features & Card Sorting



Key Discovery: TNAU is not just a shop; it is an aggregator. The legacy single-vendor system was completely incompatible with sourcing specific seeds from specific fixed vendors (e.g., Maize from Vendor A).

Re-architecting the ecosystem through the Organization-Branch-POS model

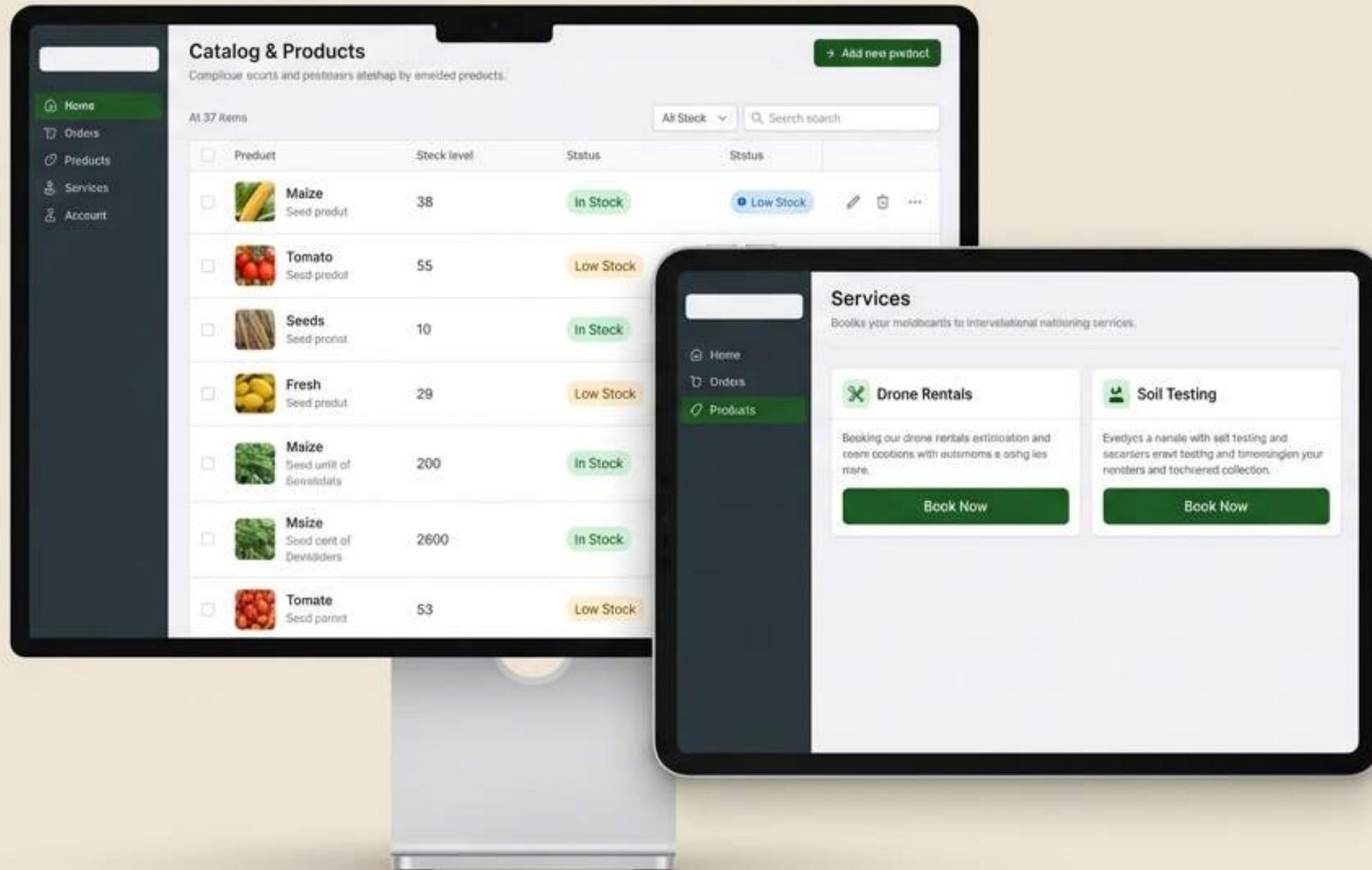


The Workflow Shift

Old Way: Manual phone calls to check stock from a list of over 60 vendors. TNAU acted as a severe bottleneck.

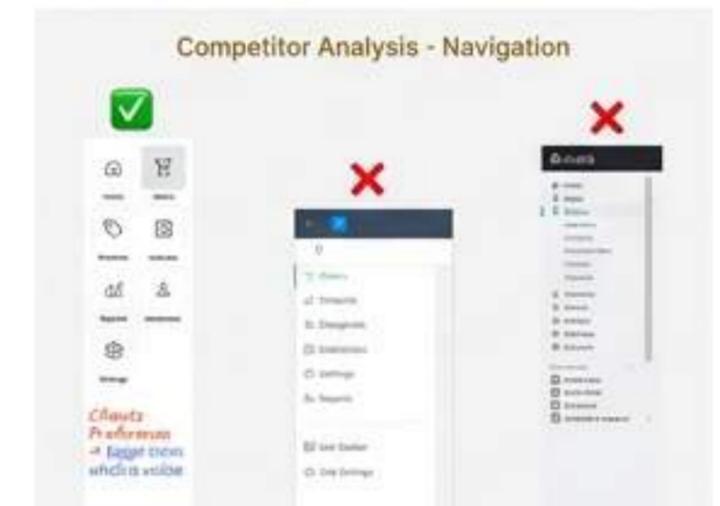
New Way: Automated Order Routing & Vendor Portals. Vendors self-update their status directly (Confirmed → Shipped) within a strict 24-hour SLA.

Designing an interface prioritising visual feedback and accessibility



Accessibility First & Buy-in

- **Accessibility First:** Integration of oversized icons and clear typography specifically chosen for non-digital native farmers and vendors.
- **Stakeholder Buy-in:** Moving rapidly from abstract requirements to high-fidelity visual moodboards secured early approval from university staff who required tangible, familiar elements (like tables and forms).



Initial prototypes failed to survive contact with real users

36.8%

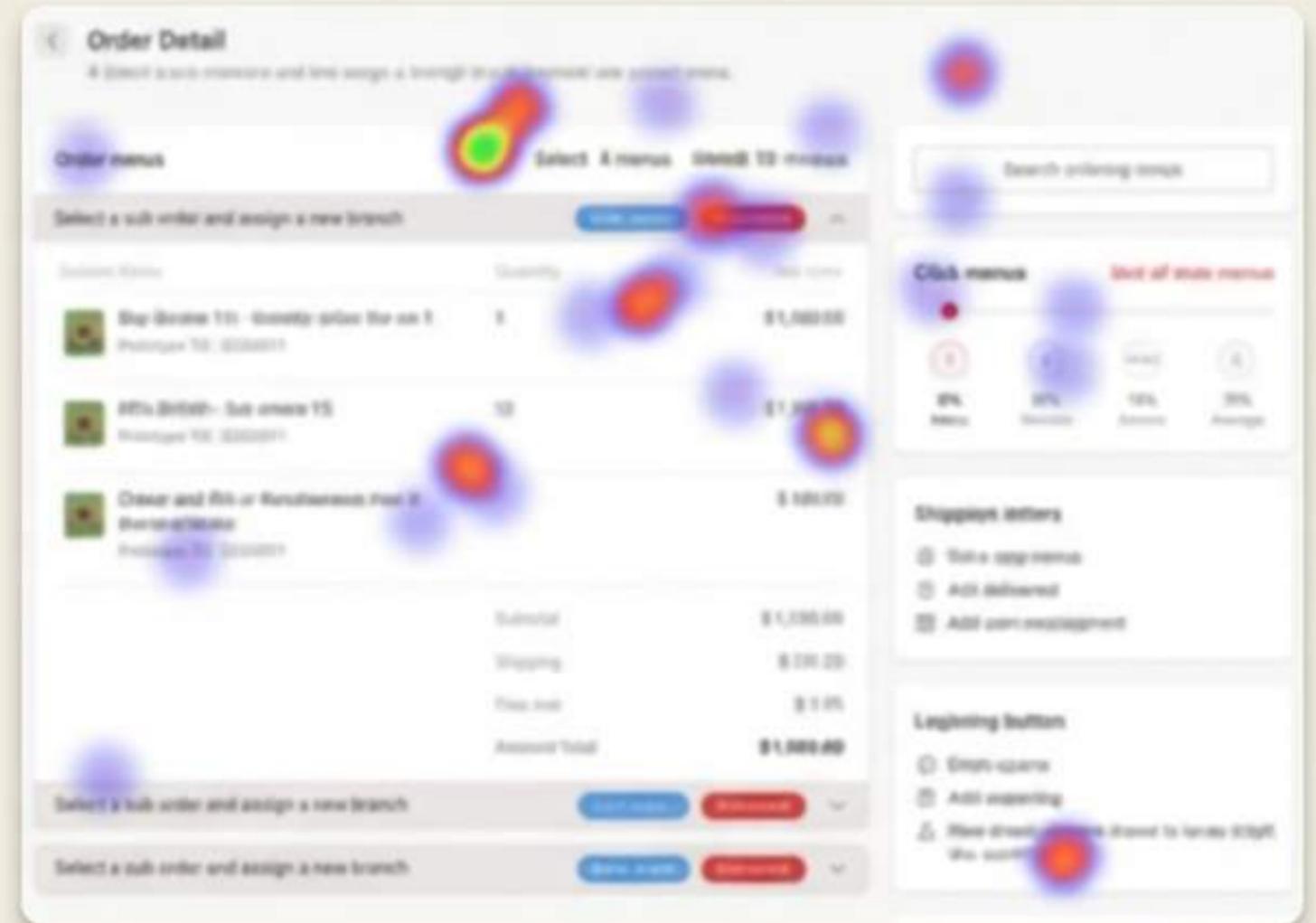
Success Rate

63.2%

Drop-off Rate

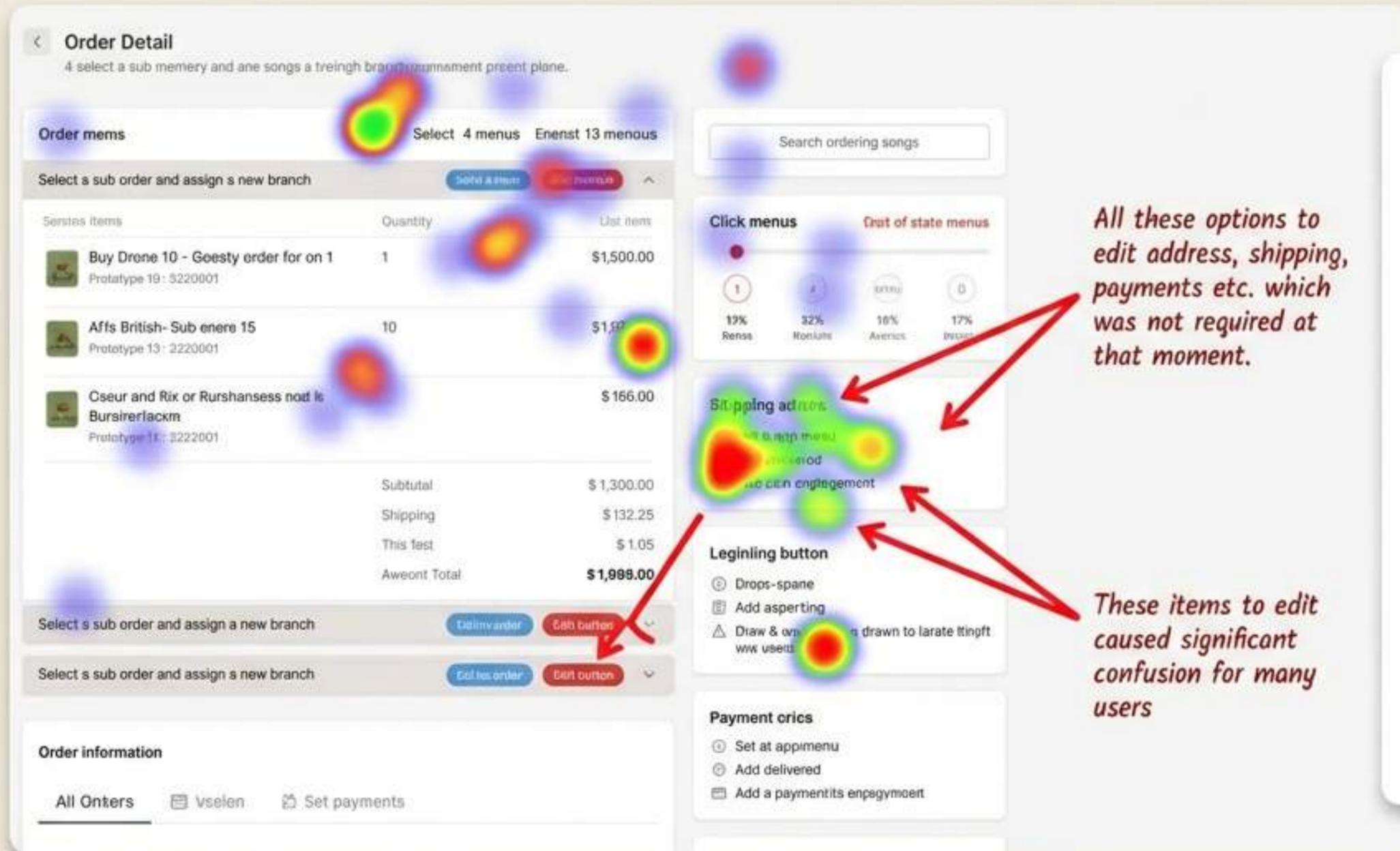
83.9%

Misclick Rate



- We ran unmoderated remote prototype tests via Maze to validate user flows.
- **Task:** "Select a sub order and assign a new branch"
- **The Reality Check:** The data proved our B2B order management flow was vastly overcomplicated for new users.

Users were overwhelmed by unnecessary options during critical tasks



All these options to edit address, shipping, payments etc. which was not required at that moment.

These items to edit caused significant confusion for many users

The Insight

- Heatmaps and session recordings revealed severe cognitive overload.
- When an order was merely in the "Order Placed" status, users were trying to perform actions that were completely unnecessary.
- Users were distracted by options to edit addresses, shipping details, and payments, leading to severe drop-offs and misclicks.

Course correcting by drastically reducing cognitive load

Merchant View

The Merchant View dashboard features a sidebar with navigation options: Home, Dashboard, Notifications, Locations, Branches, Orders, and Settings. The main content area is titled 'Dashboard' and includes a 'More info/order' button. It displays an 'Order list' table with columns for Order ID, Status, and a dropdown menu. The table lists several orders, with the first two highlighted by arrows pointing to an 'Expanded detail' view. The expanded view shows details for Order #5652, including its status (Succeeded), date (Nov 25, 2022), and a breakdown of costs: Subtotal (\$150.00), Sales order fees (\$345.00), and Total (\$187.23).

Order ID	Status	Dropdown
Order 40001 Nov 23 - 10:00 PM	Completed	Expanded
Order 00002 Nov 23 - 10:00 PM	Completed	Expanded
Order 00003 Nov 23 - 10:00 PM	Completed	Expanded
Order 00004 Nov 23 - 10:00 PM	Completed	Expanded
Order 00003 Nov 23 - 10:00 PM	Completed	Expanded
Order 00002 Nov 23 - 10:00 PM	Completed	Expanded
Order 00001 Nov 23 - 10:00 PM	Completed	Expanded

Order #5652 Nov 25 - 10:00 PM	Status Succeeded
Status Nov 25, 2022	Status Succeeded
Order \$150.00	Default date Nov 23, 2022
Subtotal	\$150.00
Sales order fees	\$345.00
Total	\$187.23

Vendor View

The Vendor View dashboard features a sidebar with navigation options: Home, Dashboard, Notifications, Categories, Branches, Orders, and Settings. The main content area is titled 'Dashboard' and includes a 'More info/order' button. It displays an 'Order list' table with columns for Order ID, Status, and a dropdown menu. The table lists several orders, with the first one highlighted by an arrow pointing to a 'Sub-order' table. The sub-order table shows a breakdown of items with columns for Table, Order, Qty, and Price, totaling \$183.30.

Order ID	Status	Dropdown
Order 40003 Nov 23 - 10:00 PM	Completed	Expanded
Order 40001 Nov 23 - 10:00 PM	Completed	Expanded

Table	Order	Qty	Price
Sub-order 1	Flare	1	\$100.00
Sub-order 2	Flare	1	\$108.00
Sub-order 3	Flare	1	\$108.00
Sub-order 4	Sub-order	1	\$103.00
Total			\$183.30

Action 1:

Interface refined to explicitly disable secondary actions during critical status updates, guiding user focus solely to Order Confirmation.

Action 2:

Moved sub-orders directly to the 'List of orders' page. Having separate order statuses, assigned branches, and order histories on a single view caused too much confusion.

Action 3:

To ensure total onboarding success, we supplemented the simplified UI with built-in tutorial videos for merchants and vendors.

From operational struggle to exponential statewide scale



Vendor Ecosystem Growth: 15x Expansion, scaling effortlessly for active vendors across the state.